

**Supplement**

to the

**Annual Report 2008**

**Berlin 2008**

Supplement, Annual Report 2008

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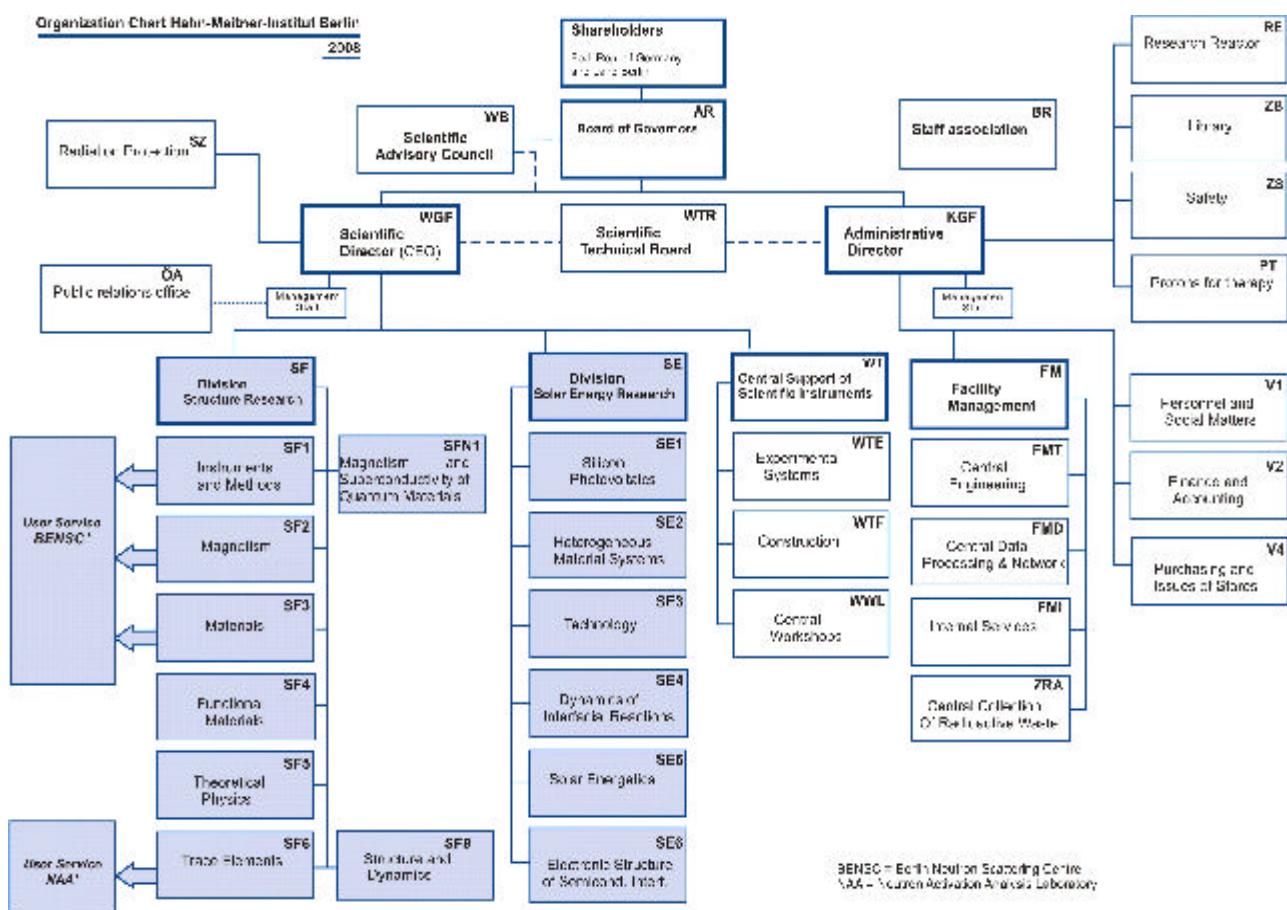
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## Preface

This supplement to the Annual Report 2008 is supposed to provide in addition to the scientific highlights of the HZB a survey of the scientific activities in terms of publications, contributions to conferences etc.

Following the internal organisation of the institute, these lists are ordered along the divisions, departments and, wherever reasonable, along the R&D-projects within the latter. Publications and conference contributions are ascribed to a definite R&D-project. When authors from different departments have contributed, this contribution is listed under all involved departments and the respective R&D-project is indicated.

The organisation chart for the scientific divisions valid for 2008 reads as follows:



**R&D-projects in the matrix of departments versus Helmholtz programmes**

<b>Dep</b>	<b>Research fields and programmes</b>			
	Structure of Matter: PNI		Health	Energy
	Research	Large scale facilities	Environ. Health	Renewable Energies
		BENSC.External BENSC.User		
SF1	SF1.Methods SF1.Spallation SF1.Dynamics	SF1.BENSC		
SF2	SF2.Thin films SF2.Novel Materials SF2.Quantum Phenomena	SF2.BENSC SF2.BESSY		
SF3	SF3.Microstructure SF3.Light weight mat. SF3.Tomography SF3.Scattering	SF3.BENSC SF3.BESSY		
SF5	SF5.Soft Matter SF5.Hard Matter SF5.Biosystems			
SF6		SF6.NAA	SF6.Analysis SF6.Proteins	
SF8	SF8.Dynamics SF8.Structures			
SFN1	SFN.1 Magnetism			
SE1				SE1.Cells SE1.Hetero
SE2				SE2.Semico SE2.Contacts SE2.Integration SE2.Chemistry SE2.Concepts SE2.Analytics
SE3				SE3.Baseline SE3.Control
SE4				SE4.Cells SE4.Dynamics
SE5				SE5.Energetics SE5.Interfaces
SE6				SE6.Interfaces SE6.BESSY



# **Publications**

## SF - Structural Research

### SF - BENSC

#### BENSC.User

*Bordallo, H.N. ; Boldyreva, E.V. ; Buchsteiner, A. ; Koza, M.M. ; Landsgesell, S.*

#### **Structure-property relationships in the crystals of the smallest amino acid: An incoherent inelastic neutron scattering study of the glycine polymorphs**

Journal of Physical Chemistry B

112 (2008) 8748 - 8759

*Dalle-Ferrier, C. ; Eibl S. ; Pappas, C. ; Alba-Simionescu, C.*

#### **Temperature dependence of three-point correlation functions of viscous liquids: the case of glycerol**

Journal of Physics: Condensed Matter

20 (2008) 494240/1 - 7

*Skupin, A. ; Kettenmann, H. ; Winkler, U. ; Wartenberg, M. ; Sauer, H. ; Tovey, S.C. ; Taylor, C.W. ; Falcke, M.*

#### **How does intracellular Ca<sup>2+</sup> oscillate: By chance or by the clock?**

Biophysical Journal

94 (2008) 2404 - 2411

### SF1.BENSC

*Bellouard, C. ; Faure-Vincent, J. ; Tiusan, C. ; Montaigne, F. ; Hehn, M. ; Leiner, V. ; Fritzsche, H. ; Gierlings, M.*

#### **Interlayer magnetic coupling in Fe/MgO junctions characterized by vector magnetization measurements combined with polarized neutron reflectometry**

Physical Review B

78 (2008) 134429/1 - 8

*Chang, J. ; Niedermayer, Ch. ; Gilardi, R. ; Christensen, N.B. ; Ronnow, H.M. ; McMorrow, D.F. ; Ay, M. ; Stahn, J. ; Sobolev, O. ; Hiess, A. ; Pailhes, S. ; Baines, C. ; Momono, N. ; Oda, M. ; Ido, M. ; Mesot, J.*

#### **Tuning competing orders in La<sub>2-x</sub>Sr<sub>x</sub>CuO<sub>4</sub> cuprate superconductors by the application of an external magnetic field**

Physical Review B

78 (2008) 104525/1 - 5

*Davies, C. M. ; Wimpory, R.C. ; Tabuchi, M. ; Dean, D.W. ; Nikbin, K.M.*

#### **The influence of specimen geometry and test times on high temperature crack growth behaviour in parent and welded 316H stainless steel**

In: Proceedings of PVP2008 ASME Pressure Vessels and Piping Division Conference July 27-31, 2008, Chicago, Illinois, USA [Ausg. auf CD]

2008, 1 - 9

*Davies, C.M. ; Wimpory, R.C. ; Beres, M. ; Lightfoot, M.P. ; Dye, D. ; Oliver, E. ; O'Dowd, N.P. ; Bruce, G.J. ; Nikbin, K.M.*

#### **The effect of residual stress and microstructure on distortion in thin welded steel plates**

In: Proceedings of the ASME Pressure Vessels and Piping Conference - 2007. Vol. 6: Materials and Fabrication, eds. Lidbury, D.

ASME, New York, 2008, 851 - 858

*Davies, C.M. ; Wimpory, R.C. ; Dye, D. ; Nikbin, K.M.*

#### **The effects of plate dimensions on residual stresses in welded thin steel plates**

In: Proceedings of PVP2008 ASME Pressure Vessels and Piping Division Conference July 27-31, 2008, Chicago, Illinois, USA [Ausg. auf CD]

2008, 1 - 9

Desmedt, A. ; Kitchin, S.J. ; Harris, K.D.M. ; Guillaume, F. ; Tykwiński, R.R. ; Xu, M. ; Gonzalez, M.A.

**Dynamic properties of solid ammonium cyanate**

Journal of Physical Chemistry C

512 (2008) 15870 - 15879

Garlea, V.O. ; Zheludev, A. ; Regnault, L.-P. ; Chung, J.-H. ; Qiu, Y. ; Boehm, M. ; Habicht, K. ; Meissner, M.

**Excitations in a four-leg antiferromagnetic Heisenberg spin tube**

Physical Review Letters

100 (2008) 037206/1 - 4

Gummel, J. ; Boué, F. ; Clemens, D. ; Cousin, F.

**Finite size and inner structure controlled by electrostatic screening in globular complexes of proteins and polyelectrolytes**

Soft Matter

4 (2008) 1653 - 1664

Hollmann, O. ; Steitz, R. ; Czeslik, C.

**Structure and dynamics of alpha-lactalbumin adsorbed at a charged brush interface**

Physical Chemistry Chemical Physics

10 (2008) 1448 - 1456

Itagaki, N. ; Kokalova, T. ; Ito, M. ; Kimura, M. ; von Oertzen, W

**Coupling between alpha-condensed states and normal cluster states**

Physical Review C

77 (2008) 037301

Ivanova, O. ; Soltwedel, O. ; Gopinadhan, M. ; Köhler, R. ; Steitz, R. ; Helm, C.A.

**Immobile light water and proton - deuterium exchange in polyelectrolyte multilayers**

Macromolecules

41 (2008) 7179 - 7185

Krist, T. ; Teichert, A. ; Mel'tchakov, E. ; Vidal, V. ; Zoethout, E. ; Müllender, S. ; Bijkerk, F.

**Stress reduction in multilayers used for X-ray and neutron optics**

In: Modern developments in X-ray and neutron optics, eds. Erko, A. [u.a.]

Springer, Berlin, 2008, 371 - 388

Le, M.D. ; McEwen, K.A. ; Park, J.-G. ; Lee, S. ; Iga, F. ; Rule, K.C.

**Magnetic excitations in the ordered phases of praseodymium hexaboride**

Journal of Physics: Condensed Matter

20 (10) (2008) 104231/1 - 6

Neov, D. ; Ohms, C. ; Wimpyry, R.C. ; Youtsos, A.G.

**Residual stress analyses by neutron diffraction in irradiated double-V butt welded steel plates**

Materials Science Forum

571-572 (2008) 381 - 386

O'Dowd, N. P. ; Nikbin, K. M. ; Wimpyry, R.C. ; Biglari, F. R. ; O'Donnell, M.P.

**Computational and experimental studies of high temperature crack initiation in the presence of residual stress**

Journal of Pressure Vessel Technology

130 (2008) 041403/1 - 7

Ohms, C. ; Martins, R.V. ; Uca, O. ; Youtsos, A.G. ; Bouchard, P.J. ; Smith, M. ; Keavey, M. ; Bate, S.K. ; Gilles, P. ; Wimpyry, R.C. ; Edwards, L.

**The European Network on Neutron Techniques Standardization for Structural Integrity - NeT**

In: Proceedings of PVP2008 ASME Pressure Vessels and Piping Division Conference July 27-31, 2008, Chicago, Illinois, USA [Ausg. auf CD]

2008, 1 - 13

Ortore, M.G. ; Sinibaldi, R. ; Spinozzi, F. ; Carsughi, F. ; Clemens, D. ; Bonincontro, A. ; Mariani, P.  
**New insights into urea action on proteins: A SANS study of the lysozyme case**  
Journal of Physical Chemistry B  
112 (2008) 12881 - 12887

Papaefthimiou, V. ; Steitz, R. ; Findenegg, G.H.  
**Schaltbare Oberfläche. Responsive Polymerschichten**  
Chemie in unserer Zeit  
42 (2008) 102 - 115

Podlesnyak, A. ; Russina, M. ; Furrer, A. ; Alfonsov, A. ; Vavilova, E. ; Kataev, V. ; Büchner, B. ; Strässle, Th. ; Pomjakushina, E. ; Conder, K. ; Khomskii, D.I.  
**Spin-state polarons in lightly-hole-doped LaCoO<sub>3</sub>**  
Physical Review Letters  
101 (2008) 247603/1 - 4

Remhof, A. ; Friedrichs, O. ; Buchter, F. ; Mauron, Ph. ; Züttel, A. ; Wallacher, D.  
**Solid-state synthesis of LiBD<sub>4</sub> observed by in situ neutron diffraction**  
Physical Chemistry Chemical Physics  
10 (38) (2008) 5859 - 5862

Robinson, J.S. ; Truman, C.E. ; Hossain, S. ; Wimpory, R.  
**Residual stress and microstructural variations in thick aluminium alloy forgings**  
Materials Science Forum  
571-572 (2008) 45 - 50

Ruegg, C; Kiefer, K; Thielemann, B; McMorrow, DF; Zapf, V; Normand, B; Zvonarev, MB; Bouillot, P; Kollath, C; Giamarchi, T; Capponi, S; Poilblanc, D; Biner, D; Kramer, KW  
**Thermodynamics of the Spin Luttinger Liquid in a Model Ladder Material**  
Physical Review Letters  
101 (2008) 247202

Salak A.N.; Vyshatko N.P.; Khalyavin D.D.; Prokhnenco O.; Ferreira V.M.  
**Low-temperature structural and dielectric phenomena in La<sub>1/3</sub>NbO<sub>3</sub> and La<sub>1/3</sub>TaO<sub>3</sub>: Comparative study**  
Applied Physics Letters  
93 (16) (2008) 162903/1 - 3

Senff, D. ; Schumann, O. ; Benomar, M. ; Kriener, M. ; Lorenz, T. ; Sidis, Y. ; Habicht, K. ; Link, P. ; Braden, M.  
**Melting of magnetic correlations in charge-orbital ordered La<sub>1/2</sub>Sr<sub>3/2</sub>MnO<sub>4</sub> : Competition of ferromagnetic and antiferromagnetic states**  
Physical Review B  
77 (2008) 184413/1 - 14

Turski, M. ; Wimpory, R..C. ; O'Dowd, N. P. ; Withers, P.J. ; Nikbin, K.M.  
**A comparison of measurement and modelling of plastically induced residual stresses in a 316H and a weld 347 stainless steel**  
In: Proceedings of the ASME Pressure Vessels and Piping Conference - 2007. Vol. 9: 8th International Conference on Creep and Fatigue at Elevated Temperatures : CREEP 8, eds. Jaske, C.E. ASME, New York, 2008, 89 - 98

Venter, A.M. ; van der Watt, M.W. ; Wimpory, R.C. ; Schneider, R. ; McGrath, P.J. ; Topic, M.  
**Neutron strain investigations of laser bent samples**  
Materials Science Forum  
571-572 (2008) 63 - 68

*Wimpory, R.C. ; Mikula, P. ; Saroun, J. ; Poeste, T. ; Li. J. ; Hofmann, M. ; Schneider, R.*  
**Efficiency boost of the materials science diffractometer E3 at BENSC: One order of magnitude due to a horizontally and vertically focusing monochromator**  
 Neutron News  
 19 (1) (2008) 16 - 19

*Wimpory, R.C. ; Ohms, C. ; Hofmann, M. ; Schneider, R. ; Youtsos, A.G.*  
**Problems in the averaging of neutron diffraction stress data from round-robin campaigns**  
 Materials Science Forum  
 571-572 (2008) 283 - 288

*Wolff, M. ; Steitz, R. ; Gutfreund, P. ; Voss, N. ; Gerth, S. ; Walz, M. ; Magerl, A. ; Zabel, H.*  
**Shear induced relaxation of polymer micelles at the solid - liquid interface**  
 Langmuir  
 24 (2008) 11331 - 11333

## SF2.BENSC

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*Baldelli Bombelli, F. ; Berti, D. ; Milani, S. ; Lagi, M. ; Barbaro, P. ; Karlsson, G. ; Brandt, A. ; Baglioni, P.*  
**Collective headgroup conformational transition in twisted micellar superstructures**  
 Soft Matter  
 4 (2008) 1102 - 1113

*Baranov, N.V. ; Michor, H. ; Hilscher, G. ; Proshkin, A. ; Podlesnyak, A.*  
**Extra T-linear specific heat contribution induced by the f-d-exchange in Gd-Ni binary compounds**  
 Journal of Physics: Condensed Matter  
 20 (2008) 325233/1 - 7

*Bastjan M. ; Singer S.G. ; Neuber G. ; Eller S. ; Aliouane N. ; Argyriou D.N. ; Cooper S.L. ; Rüthausen M.*  
**Magneto-optical study of the spin-polarized electronic states in multiferroic TbMnO<sub>3</sub>**  
 Physical Review B  
 77 (2008) 193105/1 - 3

*Biehl, R. ; Hoffmann, B. ; Monkenbusch, M. ; Falus, P. ; Preost, S. ; Merkel, R. ; Richter, D.*  
**Direct observation of correlated interdomain motion in alcohol dehydrogenase**  
 Physical Review Letters  
 101 (2008) 138102/1 - 4

*Bogach, A. ; Bogomolov, L. ; Glushkov, V. ; Demishev, S. ; Sluchanko, D. ; Sluchanko, N. ; Shitsevalova, N. ; Levchenko, A. ; Filipov, V. ; Flachbart, K. ; Siemensmeyer, K.*  
**Bulk and local magnetic susceptibility of ErB<sub>12</sub>**  
 Acta Physica Polonica A  
 113 (2008) 271 - 274

*Bonini, M. ; Lenz, S. ; Falletta, E. ; Ridi, F. ; Carretti, E. ; Fratini, E. ; Wiedenmann, A. ; Baglioni, P.*  
**Acrylamide-based magnetic nanosponges: A new smart nanocomposite material**  
 Langmuir  
 24 (2008) 12644 - 12650

*Dante, S. ; Hauß, Th. ; Brandt, A. ; Dencher, N.A.*  
**Membrane fusogenic activity of the Alzheimer's peptide Aβ(1-42) demonstrated by small-angle neutron scattering**  
 Journal of Molecular Biology  
 376 (2008) 393 - 404

*De Lisi, R. ; Gradzielski, M. ; Lazzara, G. ; Milioto, S. ; Muratore, N. ; Prevost, S.*  
**Aqueous Laponite Clay Dispersions in the Presence of Poly(ethylene oxide) or Poly(propylene oxide) Oligomers and their Triblock Copolymers**  
 Journal of Physical Chemistry B  
 112 (31) (2008) 9328 - 9336

Dyakonov, V. ; Bukhanko, F.N. ; Kamenev, V.I. ; Zubov, E.E. ; Arciszewska, M. ; Dobrowolski, W. ; Mikhaylov, V. ; Puzniak, R. ; Wisniewski, A. ; Piotrowski, K. ; Varyukhin, V. ; Szymczak, H. ; Szytula, A. ; Duraj, R. ; Stüsser, N. ; Arulraj, A. ; Baran, S. ; Penc, B. ; Jaworska-Golab, T.

**Lattice distortion effect on structure and on spin ordering of Mn ions in La<sub>1-x</sub>NdxMnO<sub>3+delta</sub> manganites**

Physical Review B  
77 (2008) 214428/1 - 12

Efimova, E. ; Efimov, V. ; Karpinsky, D. ; Kuzmin, A. ; Purans, J. ; Sikolenko, V. ; Tiutiunnikov, S. ; Troyanchuk, I. ; Welter, E. ; Zajac, D. ; Simkin, V. ; Sazonov, A.

**Short- and long-range order in La<sub>1-x</sub>Sr<sub>x</sub>CoO<sub>3</sub> and La<sub>1-x</sub>Ba<sub>x</sub>CoO<sub>3</sub>**

Journal of Physics and Chemistry of Solids  
69 (2008) 2187 - 2190

Gabani, S. ; Matas, S. ; Priputen, P. ; Flachbart, K. ; Siemensmeyer, K. ; Wulf, E. ; Evdokimova, A. ; Shitsevalova, N.

**Magnetic structure and phase diagram of TmB<sub>4</sub>**

Acta Physica Polonica A  
113 (2008) 227 - 230

Gamari-Seale, H. ; Troyanchuk, I.O. ; Sazonov, A.P. ; Stefanopoulos, K.L. ; Toebbens, D.M.

**Structure and magnetic order in La<sub>0.7</sub>Ca<sub>0.3</sub>Nn<sub>0.5</sub>Co<sub>0.5</sub>O<sub>3</sub> and La<sub>0.8</sub>Sr<sub>0.2</sub>Mn<sub>0.5</sub>Co<sub>0.5</sub>O<sub>3</sub> perovskites**

Physica B  
403 (2008) 2924 - 2929

Glavatskyy, I. ; Glavatska, N. ; Urubkov, I. ; Hoffman, J.-U. ; Bourdarot, F.

**Crystal and magnetic structure temperature evolution in Ni-Mn-Ga magnetic shape memory martensite**

Materials Science and Engineering A  
481-482 (2008) 298 - 301

Glushkov, V. ; Demishev, S. ; Ignatov, M. ; Khayrullin, E. ; Sluchanko, N. ; Shitsevalova, N. ; Levchenko, A. ; Filipov, V. ; Flachbart, K. ; Siemensmeyer, K.

**Phonon Drag and Magnetic Anomalies of Thermopower in RB12 (R= Ho, Er, Tm, Lu)**

Acta Physica Polonica A  
113 (2008) 275 - 278

Gondek, L. ; Arulray, A. ; Baran, S. ; Nenkov, K. ; Penc, B. ; Szytula, A. ; Tomala, K.

**Magnetic properties of Ho<sub>3-x</sub>Y<sub>x</sub>Cu<sub>4</sub>Sn<sub>4</sub> (x=0, 1, 2)**

Journal of Physics: Condensed Matter  
20 (2008) 295205/1 - 6

Gondek, L. ; Szytula, A. ; Prokhnenko, O.

**Complex magnetic behaviour of Ho<sub>3</sub>Cu<sub>4</sub>X<sub>4</sub> compounds (X = Si and Sn)**

Acta Physica Polonica A  
113 (4) (2008) 1179 - 1184

Gournis, D. ; Lappas, A. ; Karakassides, M.A. ; Többens, D. ; Moukarika, A.

**A neutron diffraction study of alkali cation migration in montmorillonites**

Physics and Chemistry of Minerals  
35 (2008) 49 - 58

Habel, D. ; Goerke, O. ; Tovar, M. ; Kondratenko, E. ; Schubert, H.

**Phase Relations in the System TiO<sub>2</sub>-V<sub>2</sub>O<sub>x</sub> under Oxidizing and Reducing Conditions**

Journal of Phase Equilibria and Diffusion  
29 (2008) 482 - 487

Jesche, A. ; Caroca-Canales, N. ; Rosner, H. ; Borrman, H. ; Ormeci, A. ; Kasinathan, D. ; Klauss, H.H. ; Luetkens, H. ; Khasanov, R. ; Amato, A. ; Hoser, A. ; Kaneko, K. ; Krellner, C. ; Geibel, C.

**Strong coupling between magnetic and structural order parameters in SrFe<sub>2</sub>As<sub>2</sub>**

Physical Review B

78 (2008) 180504/1 - 4

Kaneko, K. ; Hoser, A. ; Caroca-Canales, N. ; Jesche, A. ; Krellner, C. ; Stockert, O. ; Geibel C.

**Columnar magnetic structure coupled with orthorhombic distortion in the antiferromagnetic iron arsenide SrFe<sub>2</sub>As<sub>2</sub>**

Physical Review B

78 (2008) 212502/1 - 4

Keiderling, U. ; Wiedenmann, A. ; Rupp, A. ; Klenke, J. ; Heil, W.

**SANS polarizatin analysis at V4 SANS instrument of HMI Berlin**

Measurement Science and Technology

19 (2008) 034009/1 - 8

Kessner, D. ; Kiselev, M. ; Dante, S. ; Hauß, T. ; Lersch, P. ; Wartewig, S. ; Neubert, R.H.H.

**Arrangement of ceramide [EOS] in a stratum corneum lipid model matrix: new aspects revealed by neutron diffraction studies**

European Biophysics Journal

37 (2008) 989 - 999

Kessner, D. ; Kiselev, M.A. ; Hauß, T. ; Dante, S. ; Wartewig, S. ; Neubert, R.H.H.

**Localisation of partially deuterated cholesterol in quaternary SC lipid model membranes: a neutron diffraction study**

European Biophysics Journal

37 (2008) 1051 - 1057

Khalyavin, D.D. ; Argyriou, D.N. ; Amann, U. ; Yaremchenko, A.A. ; Kharton, V.V.

**Low-temperature behavior of YBaCo<sub>2</sub>O<sub>5.5</sub>: Coexistence of two spin-state ordered phases**

Physical Review B

77 (6) (2008) 064419/1 - 6

Khalyavin, D.D. ; Prokhnenko, O. ; Stuüber, N. ; Sikolenko, V. ; Efimov, V. ; Salak, A.N. ; Yaremchenko, A.A. ; Kharton, V.V.

**Crystal and magnetic structures of NdBaCo<sub>2</sub>O<sub>5+delta</sub> (delta similar to 0.75): A neutron diffraction study**

Physical Review B

77 (2008) 174417/1 - 8

Kiselev, M.A. ; Zemlyanaya, E.V. ; Ryabova, N.Y. ; Hauss, T. ; Dante, S. ; Lombardo, D.

**Water distribution function across the curved lipid bilayer: SANS study**

Chemical Physics

345 (2008) 185 - 190

Kusmin, A. ; Lechner, R.E. ; Kammel, M. ; Saenger, W.

**Native and methylated cyclodextrins with positive and negative solubility coefficients in water studied by SAXS and SANS**

Journal of Physical Chemistry B

112 (2008) 12888 - 12898

Milani, S. ; Baldelli Bombelli, F. ; Berti, D. ; Dante, S. ; Hauß, T. ; Baglioni, P.

**Nucleolipid membranes: structure and molecular recognition**

Journal of Physics: Condensed Matter

20 (2008) 104212/1 - 8

- Mukherji, D. ; Del Genovese, D. ; Strunz, P. ; Gilles, R. ; Wiedenmann, A. ; Rösler, J.*  
**Microstructural characterisation of a Ni-Fe-based superalloy by in situ small-angle neutron scattering measurements**  
Journal of Physics: Condensed Matter  
20 (2008) 104220/1 - 9
- Nakajima, T.; Mitsuda, S.; Inami, T.; Terada, N.; Ohsumi, H.; Prokes, K.; Podlesnyak, A.*  
**Identification of microscopic spin-polarization coupling in the ferroelectric phase of magnetoelectric multiferroic CuFe<sub>1-x</sub>Al<sub>x</sub>O<sub>2</sub>**  
Physical Review B  
78 (2) (2008) 024106/1 - 10
- Nyam-Ochir, L. ; Ehrenberg, H. ; Buchsteiner, A. ; Senyshyn, A. ; Fuess, H. ; Sangaa, D.*  
**The magnetic structures of double tungstates, NaM(WO<sub>4</sub>)<sub>2</sub>, M = Fe, Cr: Examples for superexchange couplings mediated by [NaQ]-octahedra**  
Journal of Magnetism and Magnetic Materials  
320 (2008) 3251 - 3255
- Paul-Boncour, V. ; Hoser, A. ; Hense, K. ; Gratz, E. ; Rotter, M. ; Stüber, N.*  
**Magnetic phase diagram of Ho-Ag**  
Journal of Physics: Condensed Matter  
20 (2008) 104225/1 - 5
- Pieper, J. ; Hauß, T. ; Buchsteiner, A. ; Renger, G.*  
**The effect of hydration on protein flexibility in photosystem II of green plants studied by quasielastic neutron scattering**  
European Biophysics Journal  
37 (2008) 657 - 663
- Prokes, K. ; Prchal, J. ; Sechovsky, V. ; Andreev, A.V.*  
**Magnetic structure in UIrAl**  
Acta Physica Polonica A  
113 (2008) 339 - 342
- Rajamathi, J.T. ; Arulraj, A. ; Ravishankar, N. ; Arulraj, J. ; Rajamathi, M.*  
**Delamination of surfactant-intercalated brucite-like hydroxy salts of cobalt and copper and solvothermal decomposition of the resultant colloidal dispersions**  
Langmuir  
24 (19) (2008) 11164 - 11168
- Reehuis, M. ; Ulrich, C. ; Pattison, P. ; Miyasaka, M. ; Tokura, Y. ; Keimer, B.*  
**Crystal and magnetic structure of CeVO<sub>3</sub>**  
European Physical Journal B  
64 (2008) 27 - 34
- Ruettinger, A. ; Kiselev, M.A. ; Hauss, T. ; Dante, S. ; Balagurov, A.M. ; Neubert, R.H.H.*  
**Fatty acid interdigitation in stratum corneum model membranes: a neutron diffraction study**  
European Biophysics Journal  
37 (2008) 759 - 771
- Salak, A.N. ; Prokhnenko O. ; Ferreira V.M.*  
**Temperature evolution of the crystal structures in La(Mg<sub>1/2</sub>Ti<sub>1/2</sub>)O<sub>3</sub> perovskite: relation to the microwave dielectric properties**  
Journal of Physics: Condensed Matter  
20 (8) (2008) 085210/1 - 9

Smirnov, L.S. ; Wozniak, K. ; Dominiak, P. ; Loose, A. ; Natkaniec, I. ; Frontasyeva, M.V. ; Pomyakushina, E.V. ; Baranov, A.I. ; Dolbinina, V.V.

**Refinement of the crystal structure of  $[Rb_x(NH_4)_{1-x}]_3H(SO_4)_2$  ( $x=0.11$ ) by sincyle-crystal X-ray and neutron diffraction: I. phase II at 300 K**

Crystallography Reports  
53 (3) (2008) 418 - 427

Szytula, A. ; Arulraj, A. ; Baran, S. ; Kaczrowski, D. ; Penc, B. ; Stüsser, N.  
**Magnetic properties of the compounds  $R_2CuIn_3$  ( $R = Tb, Dy, Ho, Er$ )**

Solid State Commun.  
147 (1Feb) (2008) 61 - 64

Szytula, A. ; Kaczorowski, D. ; Gondek, L. ; Arulraj, A. ; Baran, S. ; Penc, B.  
**Magnetic structure of  $PrRh_2Si_2$**

Solid State Communications  
146 (2008) 61 - 64

Szytula, A. ; Penc, B. ; Kaczorowski, D. ; Arulraj, A. ; Baran, S. ; Stüsser, N. ; Tomala, K.  
**Magnetic and electronic properties of  $RCo_xGe_2$  ( $R = Pr, Nd$ ) compounds**

Journal of Alloys and Compounds  
460 (1Feb) (2008) 120 - 124

Süllow, S. ; Otop, A. ; Loose, A. ; Klenke, J. ; Prokhnenko, O. ; Feyerherm, R. ; Hendrikx, R.W.A. ; Mydosh, J.A. ; Amitsuka, H.

**Electronic localization and two-dimensional metallic state in  $UPt_2Si_2$**

Journal of the Physical Society of Japan  
77 (2008) 024708/1 - 5

Teixeira, S.C.M. ; Zaccai, G.; Ankner, J.; Bellissent-Funel, M.C.; Bewley, R.; Blakeley, M.P.; Coates, L.; Dahint, R.; Dalglish, R.; Dencher, N.A.; Dhont, J.; Fischer, P.; Forsyth, V.T.; Fragneto, G.; Frick, B.; Geue, T.; Gilles, R.; Gutberlet, T.; Haertlein, M.; Hauß, T.; Häußler, W.; Heller, T.W.; Herwig, K.; Holderer, O.; Juranyi, F.; Kampmann, R.; Knott, R.; Krueger, S.; Langan, P.; Lechner, R.E.; Lynn, G.; Majkrzak, C.; May, R.P.; Meilleur, F.; Mo, Y.; Mortensen, K. ...

**New sources and instrumentation for neutrons in biology**

Chemical Physics  
345 (2008) 133 - 151

Tolinski, T. ; Kaczorowski, D. ; Kowalczyk, A. ; Hoser, A. ; Stüber, N. ; Talik, E. ; Klimczak, L.M.  
**Neutron diffraction and magnetization measurements on  $CeNi_{4.2}Mn_{0.8}$  and  $Y_{0.7}Ni_{4.2}Mn_{0.8}$**

Physica Status Solidi B  
245 (2008) 1202 - 1205

Tripadus, V. ; Aranghel, D. ; Statescu, M. ; Buchsteiner, A.

**Molecular dynamics in DTGS ( $ND_3$ ) by quasielastic and inelastic neutron scattering**

Chemical Physics  
353 (2008) 59 - 65

Troyanchuk, I.O. ; Karpinsky, D.V. ; Yokaichiya, F.

**Magnetic and crystal structures of iron-ion-doped  $TbBaCo_2O_{5+\gamma}$**

JETP Letters  
87 (2008) 541 - 544

Troyanchuk, I.O. ; Karpinsky, D.V. ; Yokaichiya, F.

**Effect of iron doping on the magnetic structure of  $TbBaCo_2O_{5.5}$  layered perovskite**

Journal of Physics: Condensed Matter  
20 (2008) 335228/1 - 6

Vakhrushev, S.B. ; Golosovsky, I. V.; Koroleva, E. Yu. ; Naberezhnov, A. A. ; Okuneva, N. M. ; Smirnov, O. P. ; Fokin, A.V. ; Tovar, M. ; Glazman, M.

**Structure and dielectric response of Na<sub>1-x</sub>K<sub>x</sub>NO<sub>2</sub> nanocomposite solid solutions**

Physics of the Solid State  
50 (8) (2008) 1548 - 1554

Weissbach, T. ; Leisegang, T. ; Kreyssig, A. ; Frontzek, M. ; Hoffmann, J.-U. ; Souptel, D. ; Köhler, A. ; Behr, G. ; Paufler, P. ; Meyer, D. C.

**Intergrowth of several solid phases from the Y-Ni-B-C system in a large YNi<sub>2</sub>B<sub>2</sub>C crystal**

Journal of Applied Crystallography  
41 (2008) 738 - 746

Wiedenmann, A. ; Keiderling, U. ; Meissner, M. ; Wallacher, D. ; Gähler, R. ; May, R.P. ; Prévost, S. ; Klokkenburg, M. ; Erné, B.H. ; Kohlbrecher, J.

**Low-temperature dynamics of magnetic colloids studied by time-resolved small-angle neutron scattering**

Physical Review B  
77 (2008) 184417/1 - 11

Zaharko, O.; Mesot, J.; Salguero, L. A.; Valenti, R.; Zbiri, M.; Johnson, M.; Filinchuk, Y.; Klemke, B.; Kiefer, K.; Mys'kiv, M.; Straessle, Th.; Mutka, H.

**Tetrahedra system Cu(4)OCl(6)daca(4): High-temperature manifold of molecular configurations governing low-temperature properties**

Physical Review B  
77 (22) (2008) 224408/1 - 11

de la Rosa-Fox, N. ; Morales-Flórez, V. ; Toledo-Fernández, J.A. ; Piñero, M. ; Esquivias, L. ; Keiderling, U.

**SANS study of hybrid silica aerogels under "in situ" uniaxial compression**

Journal of Sol-Gel Science and Technology  
45 (2008) 245 - 250

---

**SF3.BENSC**

---

Bergner, F. ; Ulbricht, A. ; Hein, H. ; Kammel, M.

**Flux dependence of cluster formation in neutron irradiated weld material**

Journal of Physics: Condensed Matter  
20 (2008) 104262/1 - 6

Hartnig, Ch. ; Manke, I. ; Kardjilov, N. ; Hilger, A. ; Grünerbel, M. ; Kaczerowski, J. ; Banhart, J. ; Lehnert, W. **Combined neutron radiography and locally resolved current density measurements of operating PEM fuel cells**

Journal of Power Sources  
176 (2008) 452 - 459

Kardjilov, N. ; Hilger, A. ; Manke, I. ; Benfante, V. ; Lo Celso, F. ; Triolo, R. ; Ruffo, I. ; Tusa, S.

**Neutron tomography in modern archaeology**

Notiziario Neutroni e Luce di Sincrotrone  
13 (2008) 6 - 9

Kardjilov, N. ; Manke, I. ; Hilger, A. ; Dawson, M. ; Banhart, J.

**Imaging with magnetic neutrons**

Advanced Materials & Processes  
166 (2008) 43 - 44

Kardjilov, N. ; Manke, I. ; Strobl, M. ; Hilger, A. ; Treimer, W. ; Meissner, M. ; Krist, T. ; Banhart, J.

**Three-dimensional imaging of magnetic fields with polarized neutrons**

Nature Physics  
4 (2008) 399 - 403

*Kim, T.-J. ; Kardjilov, N. ; Sim, C.-M.; Kim, M.-H.*

**The investigation of water discharge characteristics at PEMFC by using neutron imaging technique at CONRAD, HMI**

In: Neutron radiography (8) : proceedings of the 8th world conference, Gaithersburg, Md., USA October 16-19, 2006. WCNR-8.., eds. Arif, M. [u.a.]

Destech Publ., Lancaster, 2008, 425 - 431

*Manescu, A. ; Fiori, F. ; Giuliani, A. ; Kardjilov, N. ; Kasztovszky, Z. ; Rustichelli, F. ; Straumal, B.*

**Non-destructive compositional analysis of historic organ reed pipes**

Journal of Physics: Condensed Matter

20 (2008) 104250/1 - 5

*Manke, I. ; Hartnig, Ch.; Kardjilov, N. ; Hilger, A. ; Lehnert, W. ; Banhart, J.*

**Neutronen-Radiographie und -Tomographie in der Brennstoffzellenforschung**

ZfP-Zeitung

Ausgabe 109 (2008) 35 - 39

*Manke, I. ; Kardjilov, N. ; Strobl, M. ; Hilger, A. ; Banhart, J.*

**Investigation of the skin effect in the bulk of electrical conductors with spin-polarized neutron radiography**

Journal of Applied Physics

104 (7) (2008) 076109/1 - 3

*Matsushima, U. ; Kardjilov, N. ; Hilger, A. ; Ueno, M. ; Kawamitsu, Y. ; Nishizawa, T. ; Herppich, W.B.*

**Visualization of water flow in tomato seedlings using neutron imaging**

In: Neutron radiography (8) : proceedings of the 8th world conference, Gaithersburg, Md., USA October 16-19, 2006. WCNR-8.., eds. Arif, M. [u.a.]

Destech Publ., Lancaster, 2008, 358 - 362

*Mueller, J; Wuttke, M; Kardjilov, N; Hilger, A*

**A BURROWING, LACERTID-LIKE SQUAMATE FROM THE EOCENE OF MESSEL, GERMANY**

Journal of Vertebrate Paleontology

28 [Suppl.] (2008) 119A

*Zrnik, J. ; Strunz, P. ; Maldini, M. ; Wiedenmann, A. ; Davydov, V.*

**Small-angle neutron scattering investigatin of gamma' precipitate morphology evolution in creep-exposed single-crystal Ni-base superalloy CMSX-4**

Journal of Physics: Condensed Matter

20 (2008) 104261/1 - 7

**SF - BENSC**

**Addenda to 2007**

**SF2.BENSC**

*Tolinski, T. ; Chelkowska, G. ; Hoser, A. ; Kowalczyk, A.*

**Neutron diffraction and X-ray photoemission studies of the RNi<sub>4</sub>Cu compounds (R=Ce, Pr, Nd)**

Journal of Alloys and Compounds

442 (2007) 286 - 288

**PT**

*Stolterfoht, N. ; Hellhammer, R. ; Bundesmann, J. ; Fink, D.*

**Scaling laws for guiding of highly charged ions through nanocapillaries in an insulating polymer**

Physical Review A

77 (2008) 032905/1 - 8

**ISL.User**

*Denker, A. ; Opitz-Coutureau, J. ; Griesser, M. ; Denk, R. ; Winter, H.*  
**Zerstörungsfreie Analyse mittelalterlicher Wiener Pfennige mit hochenergetischen Protonen**  
Berliner Beiträge zur Archäometrie  
21 (2008) 133 - 142

*Herms, M. ; Zeimer, U. ; Sonia, G. ; Brunner, F. ; Richter, E. ; Weyers, M. ; Tränkle, G. ; Behm, T. ; Irmer, G. ; Pensl, G. ; Denker, A. ; Opitz-Coutureau, J.*  
**Study of in-depth strain variation in ion-irradiated GaN**  
Journal of Materials Science: Materials in Electronics  
19 (2008) S68 - S72

*Neitzert, H.-C. ; Ferrara, M. ; Kunst, M. ; Denker, A. ; Kertész, Z. ; Limata, B. ; Gialanella, L. ; Romano, M.*  
**Electroluminescence efficiency degradation of crystalline silicon solar cells after irradiation with protons in the energy range between 0.8 MeV and 65 MeV**  
Physica Status Solidi B  
245 (2008) 1877 - 1883

*Sonia, G. ; Richter, E. ; Brunner, F. ; Denker, A. ; Lossy, R. ; Mai, M. ; Lenk, F. ; Opitz-Coutureau, J. ; Pensl, G. ; Schmidt, J. ; Zeimer, U. ; Wang, L. ; Baskar, K. ; Weyers, M. ; Würfl, J. ; Tränkle, G.*  
**Irradiation effects on AlGaN HFET devices and GaN layers**  
Journal of Materials Science: Materials in Electronics  
19 (2008) S64 - S67

*Sonia, G. ; Richter, E. ; Brunner, F. ; Denker, A. ; Lossy, R. ; Mai, M. ; Lenk, F. ; Bundesmann, J. ; Pensl, G. ; Schmidt, J. ; Zeimer, U. ; Wang, L. ; Baskar, K. ; Weyers, M. ; Würfl, J. ; Tränkle, G.*  
**2 MeV ion irradiation effects on AlGaN/GaN HFET devices**  
Solid State Electronics  
52 (2008) 1011 - 1017

*Toledano-Luque, M. ; Martinez, F.L. ; San Andres, E. ; del Prado, A. ; Martil, I. ; Gonzales-Diaz, G. ; Bohne, W. ; Röhrich, J. ; Strub, E.*  
**Physical properties of high pressure reactively sputtered hafnium oxide**  
Vacuum  
82 (2008) 1391 - 1394

**PT****Addenda to 2007**

*Denker, A. ; Arndt, P. ; Busse, W. ; Homeyer, H. ; Pelzer, W. ; Rethfeldt, C. ; Röhrich, J.*  
**Status of ISL: Converting a multi-purpose accelerator to a dedicated proton therapy facility**  
In: Cyclotrons and their applications 2007 : eighteenth international conference. October 1-5, 2007. Giardini Naxos, Italy  
2007, 116 - 118

**SF - BESSY****SF2.BESSY**

*Bohnenbuck, B. ; Zegkinoglou, I. ; Strempfer, J. ; Schüßler-Langeheine, C. ; Nelson, C.S. ; Leininger, Ph. ; Wu, H.-H. ; Schierle, E. ; Lang, J.C. ; Srager, G. ; Ikeda, S.I. ; Yoshida, Y. ; Iwata, K. ; Katano, S. ; Kikugawa, N. ; Keimer, B.*

**Magnetic structure and orbital state of Ca<sub>3</sub>Ru<sub>2</sub>O<sub>7</sub> investigated by resonant x-ray diffraction**  
Physical Review B  
77 (2008) 224412/1 - 5

Cserháti, C. ; Balogh, Z. ; Csik, A. ; Langer, G.A. ; Erdélyi, Z. ; Glodán, Gy. ; Katona, G.L. ; Beke, D.L. ; Zizak, I. ; Darowski, N. ; Dudzik, E. ; Feyerherm, R.

**Linear growth kinetics of nanometric silicides in Co/amorphous-Si and Co/CoSi/amorphous-Si thin films**

Journal of Applied Physics  
104 (2008) 024311/1 - 6

Gruyters, M. ; Schmitz, D.

**Microscopic nature of ferro- and antiferromagnetic interface coupling of uncompensated magnetic moments in exchange bias systems**

Physical Review Letters  
100 (2008) 077205/1 - 4

Klobes, B. ; Staab, T.E.M. ; Dudzik, E.

**Early stages of decomposition in Al alloys investigated by X-ray absorption**

Physica Status Solidi - Rapid Research Letters  
2 (2008) 182 - 184

Rajput, P. ; Gupta, A. ; Meneghini, C. ; Avasthi, D.K. ; Darowski, N. ; Zizak, I. ; Erko, A.

**Depth resolved structural study of heavy ion induced phase formation in Si/Fe/Si trilayer**

Hyperfine Interactions  
185 (1 Mar) (2008) 9 - 15

---

### SF3.BESSY

---

Denks, I.A. ; Genzel, Ch.

**Improvements in energy dispersive diffraction in respect of residual stress analysis**

Materials Science Forum  
571-572 (2008) 189 - 195

Eichelbaum, M. ; Rademann, K. ; Hoell, A. ; Tatchev, D.M. ; Weigel, W. ; Stößer, R. ; Pacchioni, G.

**Photoluminescence of atomic gold and silver particles in soda-lime silicate glasses**

Nanotechnology  
19 (2008) 135701/1 - 9

Gibmeier, J. ; Klaus, M. ; Scholtes, B.

**In-situ investigation of the deformation behaviour of the wrought Mg base alloy AZ31 using energy dispersive synchrotron diffraction**

Materials Science Forum  
571-572 (2008) 195 - 200

Gibmeier, J. ; Scholtes, B.

**Instrumented indentation testing on uniaxially prestressed steel samples**

Materials Science Forum  
571-572 (2008) 83 - 88

Haas, S. ; Hoell, A. ; Zehl, G. ; Dorbandt, I. ; Bogdanoff, P. ; Fiechter, S.

**Structural investigation of carbon supported Ru-Se based catalysts using anomalous small angle X-ray scattering**

ECS Transactions  
6 (2008) 127 - 138

Kiselev, MA; Gutberlet, T; Hoell, A; Aksenov, VL; Lombardo, D

**Orientation of the DMPC unilamellar vesicle system in the magnetic field: SANS study**

Chemical Physics  
345 (2008) 181 - 184

Klaus, M. ; Genzel, Ch. ; Holzschuh, H.

**Residual stress depth profiling in complex hard coating systems by X-ray diffraction**

Thin Solid Films

517 (2008) 1172 - 1176

Knabe, C. ; Koch, C. ; Rack, A. ; Stiller, M.

**Effect of beta-tricalcium phosphate particles with varying porosity on osteogenesis after sinus floor augmentation in humans**

Biomaterials

29 (2008) 2249 - 2258

Rack, A. ; Zabler, S. ; Müller, B.R. ; Riesemeier, H. ; Weidemann, G. ; Lange, A. ; Goebbel, J. ; Hentschel, M. ; Görner, W.

**High resolution synchrotron-based radiography and tomography using hard X-rays at the BAMline (BESSY II)**

Nuclear Instruments and Methods in Physics Research A

586 (2008) 327 - 344

Rack, A; Helfen, L; Baumbach, T; Kirste, S; Banhart, J; Schladitz, K; Ohser, J  
**Analysis of spatial cross-correlations in multi-constituent volume data**

Journal of Microscopy-Oxford

232 (2008) 282 - 292

## SF1 - Methods and Instruments

### SF.N1

Kim, J.-H. ; Ji, S.; Lee, S.-H. ; Lake, B.; Yildirim, T. ; Nojiri, H. ; Kikuchi, H. ; Habicht, K. ; Qiu, Y. ; Kiefer, K.

**External magnetic field effects on a distorted kagome antiferromagnet**

Physical Review Letters

101 (2008) 107201/1 - 4

### SF1.Dynamics

Börner, H.G. ; Smarsly, B.M. ; Hentschel, J. ; Rank, A. ; Schubert, R. ; Geng, Y. ; Discher, D.E. ; Hellweg, T. ; Brandt, A.

**Organization of self-assembled peptide - polymer nanofibers in solution**

Macromolecules

41 (2008) 1430 - 1437

Lefmann, K. ; Schober, H. ; Mezei, F.

**Simulation of a multiple-wavelength time-of-flight neutron spectrometer for a long-pulsed spallation source**

Measurement Science and Technology

19 (2008) 034025/1 - 12

Pieper, J. ; Buchsteiner, A. ; Dencher, N.A. ; Lechner, R.E. ; Hauß, T.

**Transient protein softening during the working cycle of a molecular machine**

Physical Review Letters

100 (2008) 228103/1 - 4

Triolo, A; Russina, O; Fazio, B; Triolo, R; Di Cola, E

**Morphology of 1-alkyl-3-methylimidazolium hexafluorophosphate room temperature ionic liquids**

Chemical Physics Letters

457 (2008) 362 - 365

---

## SF1.Methods

---

*Aynajian, P. ; Keller, T. ; Boeri, L. ; Shapiro, S.M. ; Habicht, K. ; Keimer, B.*  
**Energy gaps and Kohn anomalies in elemental superconductors**  
 Science  
 319 (2008) 1509 - 1512

*Bouwman, W. G. ; Plomp, J. ; de Haan, V.O. ; Kraan, W.H. ; van Well, A.A. ; Keller, T. ; Habicht, K. ; Rekveldt, M.T.*

**Real-space neutron scattering methods**  
 Nuclear Instruments and Methods in Physics Research A  
 586 (2008) 9 - 14

*Danilyan, GV; Wilpert, T; Granz, P; Krakhotin, VA; Mezei, F; Novitsky, VV; Pavlov, VS; Russina, MV; Shatalov, PB*

**Angular correlations in emission of precession neutrons from U-235 fission induced by slow polarized neutrons**  
 Physics of Atomic Nuclei  
 71 (2008) 2003 - 2006

*Erko, A. ; Idir, M. ; Krist, Th. ; Michette, A. [Eds.]*  
**Modern developments in X-ray and neutron optics**  
 (Springer series in optical sciences ; 137)  
 Springer, Berlin, 2008

*Jauch, W. ; Reehuis, M.*  
**Electron density distribution in ferromagnetic nickel: A gamma-ray diffraction study**  
 Physical Review B  
 78 (2008) 235113/1 - 8

*Kipping, D. ; Gähler, R. ; Habicht, K.*  
**Small angle neutron scattering at very high time resolution: Principle and simulations of 'TISANE'**  
 Physics Letters A  
 372 (2008) 1541 - 1546

*Kovacs-Mezei, R. ; Krist, Th. ; Revay, Zs.*  
**Non-magnetic supermirrors produced at Mirrotron Ltd**  
 Nuclear Instruments and Methods in Physics Research A  
 586 (2008) 51 - 54

*Krist, T. ; Teichert, A. ; Kovacs-Mezei, R. ; Rosta, L.*  
**Neutron supermirror development**  
 In: Modern developments in X-ray and neutron optics, eds. Erko, A. [u.a.]  
 Springer, Berlin, 2008, 355 - 370

*Pappas, C. ; Lelievre-Berna, E. ; Bentley, P. ; Bourgeat-Lami, E. ; Moskvin, E. ; Thomas, M. ; Grigoriev, S. ; Dyadkin, V.*  
**Polarimetric neutron spin echo: Feasibility and first results**  
 Nuclear Instrument and Methods in Physics Research, A  
 592 (2008) 420 - 427

*Paul, A; Buchmeier, M; Burgler, DE; Rucker, U; Schneider, CM*  
**Twisted magnetization state at the interface of an antiferromagnetically coupled Fe/Si multilayer as probed by specular and off-specular polarized neutron scattering**  
 Physical Review B  
 77 (2008) 184409

*Strobl, M. ; Staack, K. ; Treimer, W. ; Hilger, A.*  
**Quantitative neutron phase contrast tomography**  
 Measurement Science and Technology  
 19 (2008) 034020/1 - 4

Troyanchuk, IO; Bushinsky, MV; Karpinskii, DV; Mantytskaya, OS; Fedotova, VV; Prokhnenko, OI

**Structural phase transitions in the Bi<sub>1-x</sub>LaxFeO<sub>3</sub> system**

JETP Letters

87 (2008) 641 - 644

Wheldon, C. ; Kokalova, Tz. ; von Oertzen, W. ; Gebauer, B. ; Bohlen, H.G. ; Schulz, Ch. ; Thummerer, S. ; Efimov, G. ; Beck, C. ; Curien, D. ; Papka, P.

**Particle-? coincidences and coplanarity in the <sup>32</sup>S + <sup>24</sup>Mg binary reaction**

Nuclear Physics A

811 (2008) 276 - 290

---

## SF1.Others

---

Bohlen, H.G. ; von Oertzen, W. ; Kalpakchieva, R. ; Massey, T.N. ; Dorsch, T. ; Milin, M. ; Schulz, Ch. ; Kokalova, Tz. ; Wheldon, C.

**Band structures in light neutron-rich nuclei**

Journal of Physics: Conference Series

111 (2008) 012021/1 - 5

Bohlen, H.G. ; von Oertzen, W. ; Kokalova, Tz. ; Schulz, Ch. ; Kalpakchieva, R. ; Massey, T.N. ; Milin, M.

**Band structures in <sup>12</sup>Be: experimental results**

International Journal of Modern Physics E

17 (2008) 2067 - 2070

Chmielus, M. ; Carpenter, D. ; Geleyne, A. ; Hagler, M. ; Schneider, R. ; Müllner, P.

**Numerical simulation of twin-twin interaction in magnetic shape-memory alloys**

In: Materials Structures - The Nabarro Legacy, eds. Müllner, P. [u.a.]

MRS, Warrendale, 2008, 1090-Z05-26

Chmielus, M. ; Chernenko, V.A. ; Knowlton, W.B. ; Kostorz, G. ; Müllner, P.

**Training, constraints, and high-cycle magneto-mechanical properties of Ni-Mn-Ga magnetic shape-memory alloys**

European Physical Journal - Special Topics

158 (2008) 79 – 85

Curtis, N. ; Achouri, N.L. ; Ashwood, N.I. ; Bohlen, H.G. ; Catford, W.N. ; Clarke, N.M. ; Freer, M. ; Haigh, P.J. ; Laurent, B. ; Orr, N.A. ; Patterson, N.P. ; Soic, N. ; Thomas, J.S. ; Ziman, V.

**Breakup reaction study of the Brunnian nucleus <sup>10</sup>C**

Physical Review C

77 (2008) 021301(R)/1 - 5

Curtis, N. ; Achouri, N.L. ; Ashwood, N.I. ; Bohlen, H.G. ; Catford, W.N. ; Clarke, N.M. ; Freer, M. ; Haigh, P.J. ; Laurent, B. ; Orr, N.A. ; Patterson, N.P. ; Soic, N. ; Thomas, J.S. ; Ziman, V.

**Structure of the Brunnian nucleus <sup>10</sup>C**

Journal of Physics: Conference Series

111 (2008) 012022/1 – 5

Dorsch, T. ; Bohlen, H.G. ; von Oertzen, W. ; Krücken, R. ; Faestermann, Th. ; Mahgoub, M. ; Kokalova, Tz. ; Wheldon, C. ; Milin, M. ; Wirth, H. ; Hertenberger, R.

**Cluster structures of <sup>18</sup>O and <sup>20</sup>O up to 20 MeV excitation energy from the (<sup>7</sup>Li,p)-reaction**

Journal of Physics: Conference Series

111 (2008) 012039/1 – 5

Haigh, P. ; Ashwood, N.I. ; Bloxham, T. ; Curtis, N. ; Freer, M. ; Price, D. ; Ziman, V. ; Bohlen, H.G. ; Kokalova, Tz. ; Schulz, Ch. ; von Oertzen, W. ; Wheldon, C. ; Catford, W. ; Harlin, C.

**Decay width measurements of excited states in <sup>14</sup>C**

Journal of Physics: Conference Series

111 (2008) 012020/1 - 6

*Haigh, P.J. ; Ashwood, N.I. ; Bloxham, T. ; Curtis, N. ; Freer, M. ; McEwan, P. ; Price, D. ; Ziman, V. ; Bohlen, H.G. ; Kokalova, Tz. ; Schulz, Ch. ; Torabi, R. ; von Oertzen, W. ; Wheldon, C. ; Catford, W. ; Harlin, C. ; Kalpakchieva, R. ; Massey, T.N.*

**Measurement of  $\alpha$  and neutron decay widths of excited states of  $^{14}\text{C}$**

Physical Review C 78  
78 (2008) 014319/1 – 14

*Khoa, D.T. ; von Oertzen, W. ; Bohlen, H.G.*

**Probing the equation of state of nuclear matter in the nuclear rainbow scattering**

International Journal of Modern Physics B  
22 (2008) 4684 - 4696

*Mullner, P. ; Geleynse, A.S. ; Carpenter, D.R. ; Hagler, M.S. ; Chmielus, M.*

**Modeling magnetoelasticity and magnetoplasticity with disconnections and disclinations**

In: Magnetic Shape Memory Alloys, eds. Quandt, E. [u.a.]  
MRS, Warrendale, 2008, 1050-BB02-01

*Schober, H. ; Farhi, E. ; Mezei, F. ; Allenspach, P. ; Andersen, K. ; Bentley, P.M. ; Christiansen, P. ; Cubitt, B. ; Heenan, R.K. ; Kulda, J. ; Langan, P. ; Lefmann, K. ; Lieutenant, K. ; Monkenbusch, M. ; Willendrup, P. ; Saroun, J. ; Tindemanns, P. ; Zsigmond, G.*

**Tailored instrumentation for long-pulse neutron spallation sources**

Nuclear Instruments and Methods in Physics Research A  
589 (2008) 34 - 46

*Strobl, M. ; Treimer, W. ; Kardjilov, N. ; Hilger, A. ; Zabler, S.*

**On neutron phase contrast imaging**

Nuclear Instruments and Methods in Physics Research B  
266 (2008) 181 - 186

*Takahashi, N. ; Shibata, K. ; Sato, T.J. ; Arai, M. ; Mezei, F.*

**A novel time-spatial-focusing momentum-correction analyzer for the near-backscattering spectrometer DIANA at J-PARC**

Nuclear Instruments and Methods in Physics Research A  
587 (2008) 350 - 362

*Voets, I.K. ; de Vos, W.M. ; Hofs, B. ; de Keizer, A. ; Cohen Stuart, M. A. ; Steitz, R. ; Lott, D.*

**Internal structure of a thin film of mixed polymeric micelles on a solid/liquid interface**

Journal of Physical Chemistry B  
112 (2008) 6937 - 6945

*Von Oertzen, W*

**ALPHA-CLUSTERS IN N=Z NUCLEI AND COHERENT EMISSION OF 2 alpha- and 3 alpha-CLUSTERS FROM EXCITED COMPOUND NUCLEI**

International Journal of Modern Physics E-Nuclear Physics  
17 (2008) 2129 – 2135

*von Oertzen, W. ; Gebauer, B. ; Efimov, G. ; Zherebchevsky, V. ; Kokalova, Tz. ; Thummerer, S. ; Schulz, Ch. ; Bohlen, H.G. ; Kamanin, D. ; Beck, C. ; Curien, D. ; Papka, P. ; Rousseau, M. ; Royer, G. ; de Angelis, G.*

**Fission and ternary cluster decay of hyper-deformed  $^{56}\text{Ni}$**

European Physical Journal A  
36 (2008) 279 - 288

*von Oertzen, W. ; Zherebchevsky, V. ; Efimov, G. ; Gebauer, B. ; Thummerer, S. ; Kokalova, Tz. ; Schulz, Ch. ; Bohlen, H.G. ; Kamanin, D. ; Beck, C. ; Curien, D. ; Rousseau, M. ; Papka, P. ; Royer, G. ; de Angelis, G.*

**Coplanar ternary cluster decay of hyper-deformed  $^{56}\text{Ni}$  and  $^{60}\text{Zn}$  at high angular momentum**

Journal of Physics: Conference Series  
111 (2008) 012051/1 - 6

*von Oertzen, W; Zherebchevsky, V; Gebauer, B; Schulz, C; Thummerer, S; Kamanin, D; Royer, G; Wilpert, T*  
**Fission decay of N=Z nuclei at high angular momentum: Zn-60**  
Physical Review C  
78 (2008) 044615

### SF3.Tomo

*Kardjilov, N. ; Hilger, A. ; Manke, I. ; Strobl, M. ; Treimer, W. ; Banhart, J.*  
**Multifunctional tomography instrument with cold neutrons at HMI**  
In: Neutron radiography (8) : proceedings of the 8th world conference, Gaithersburg, Md., USA October 16-19, 2006. WCNR-8, eds. Arif, M. [u.a.]  
Destech Publ., Lancaster, 2008, 28 - 33

*Manke, I. ; Hartnig, C. ; Kardjilov, N. ; Messerschmidt, M. ; Hilger, A. ; Strobl, M. ; Lehnert, W. ; Banhart, J.*  
**Characterization of water exchange and two-phase flow in porous gas diffusion materials by hydrogen-deuterium contrast neutron radiography**  
Applied Physics Letters  
92 (2008) 244101/1 - 3

*Manke, I. ; Kardjilov, N. ; Hilger, A. ; Strobl, M. ; Dawson, M. ; Banhart, J.*  
**Visualisierung dreidimensionaler magnetischer Feldverteilungen mit spin-polarisierten Neutronen**  
MP materials testing : materials and components, technology and application  
50 (2008) 572 - 579

*Strobl, M. ; Grünzweig, C. ; Hilger, A. ; Manke, I. ; Kardjilov, N. ; David, C. ; Pfeiffer, F.*  
**Neutron dark-field tomography**  
Physical Review Letters  
101 (2008) 123902/1 - 4

*Strobl, M. ; Hilger, A. ; Kardjilov, N. ; Manke, I. ; Treimer, W. ; Riemke, M.*  
**Time-of-flight spectrum measurements at the neutron imaging facility CONRAD at the Hahn-Meitner-Institute**  
In: Neutron radiography (8) : proceedings of the 8th world conference, Gaithersburg, Md., USA October 16-19, 2006. WCNR-8, eds. Arif, M. [u.a.]  
Destech Publ., Lancaster, 2008, 11 - 17

### SF2 - Magnetism

#### SF.N1

*Ohira-Kawamura, S. ; Shishido, H. ; Kawano-Furukawa, H. ; Lake, B. ; Wiedenmann, A. ; Kiefer, K. ; Shibauchi, T. ; Matsuda, Y.*  
**Anomalous flux line lattice in CeCoIn<sub>5</sub>**  
Journal of the Physical Society of Japan  
77 (2) (2008) 023702/1 - 4

#### SF2.Novel Mat.

*Aliouane, N. ; Prokhanenko, O. ; Feyerherm, R. ; Mostovoy, M. ; Strempfer, J. ; Habicht, K. ; Rule, K.C. ; Dudzik, E. ; Wolter, A.U.B. ; Maljuk, A. ; Argyriou, D.N.*  
**Magnetic order and ferroelectricity in RMnO<sub>3</sub> multiferroic manganites: coupling between R- and Mn-spins**  
Journal of Physics: Condensed Matter  
20 (2008) 434215/1 - 12

Barath, H. ; Kim, M. ; Cooper, S.L. ; Abbamonte, P. ; Fradkin, E. ; Mahns, I. ; Rübhause, M. ; Aliouane, N. ; Argyriou, D.N.

**Domain fluctuations near the field-induced incommensurate-commensurate phase transition of TbMnO<sub>3</sub>**

Physical Review B  
78 (2008) 134407/1 - 7

Chernyshov, D. ; Dmitriev, V. ; Pomjakushina, E. ; Conder, K. ; Stingaciu, M. ; Pomjakushin, V. ; Podlesnyak, A. ; Taskin, A.A. ; Ando, Y.

**Superstructure formation at the metal-insulator transition in RBaCo<sub>2</sub>O<sub>5.5</sub> (R=Nd,Tb) as seen from reciprocal space mapping**

Physical Review B  
78 (2008) 024105/1 - 7

Goldman, A.I. ; Argyriou, D.N. ; Ouladdiaf, B. ; Chatterji, T. ; Kreyssig, A. ; Nandi, S. ; Ni, N. ; Bud'ko, S.L. ; Canfield, P.C. ; McQueeney, R.J.

**Lattice and magnetic instabilities in CaFe<sub>2</sub>As<sub>2</sub>: A single-crystal neutron diffraction study**

Physical Review B  
78 (2008) 100506/1 - 4

Jalarvo, N. ; Bordallo, H. ; Aliouane, N. ; Adams, M.A. ; Pieper, J. ; Argyriou, D.N.

**Dynamics of water in Na<sub>x</sub>CoO<sub>2-y</sub>H<sub>2</sub>O**

Journal of Physical Chemistry B  
112 (2008) 703 - 709

Kimber, S.A.J. ; Argyriou, D.N. ; Yokaichiya, F. ; Habicht, K. ; Gerischer, S. ; Hansen, T. ; Chatterji, T. ; Klingeler, R. ; Hess, C. ; Behr, G. ; Kondrat, A. ; Büchner, B.

**Magnetic ordering and negative thermal expansion in PrFeAsO**

Physical Review B  
78 (2008) 140503/1 - 4

Kreyssig, A. ; Green, M.A. ; Lee, Y. ; Samolyuk, G.D. ; Zajdel, P. ; Lynn, J. W. ; Bud'ko, S. L. ; Torikachvili, M. S. ; Ni, N. ; Nandi, S. ; Leao, J. B. ; Poulton, S. J. ; Argyriou, D.N. ; Harmon, B. N. ; McQueeney, R. J. ; Canfield, P. C. ; Goldman, A. I.

**Pressure-induced volume-collapsed tetragonal phase of CaFe<sub>2</sub>As<sub>2</sub> as seen via neutron scattering**

Physical Review B  
78 (2008) 184517/1 - 6

Senff, D. ; Aliouane, N. ; Argyriou, D.N. ; Hiess, A. ; Regnault, L.P. ; Link, P. ; Hradil, K. ; Sidis, Y. ; Braden, M.

**Magnetic excitations in a cycloidal magnet: the magnon spectrum of multiferroic TbMnO<sub>3</sub>**

Journal of Physics: Condensed Matter  
20 (2008) 434212/1 - 13

Senff, D. ; Link, P. ; Aliouane, N. ; Argyriou, D.N. ; Braden, M.

**Field dependence of magnetic correlations through the polarization flop transition in multiferroic TbMnO<sub>3</sub>: Evidence for a magnetic memory effect**

Physical Review B  
77 (17) (2008) 174419/1 - 6

Strempfer, J. ; Bohnenbuck, B. ; Zegkinoglou, I. ; Aliouane, N. ; Landsgesell, S. ; Zimmermann, M. v. ; Argyriou, D.N.

**Magnetic-field-induced transitions in multiferroic TbMnO<sub>3</sub> probed by resonant and nonresonant x-ray diffraction**

Physical Review B  
78 (2) (2008) 024429/1 - 11

Szytula, A. ; Arulraj, A. ; Baran, S. ; Jaworska-Golab, T. ; Penc, B. ; Stüsser, N.; Tyvanchuk, Yu.; Zarzycki, A.  
**Magnetic structure of RCuIn (R= Nd, Tb, Ho, Er)**  
Acta Physica Polonica A  
113 (2008) 1185 - 1192

Troyanchuk, I.O. ; Karpinsky, D.V. ; Efimov, V.V. ; Efimova, E. ; Sikolenko, V. ; Yusupov, R.  
**Crystal structure and the magnetic state of  $\text{Pr}_{0.5}\text{Sr}_{0.5}\text{Co}_{0.5}\text{Fe}_{0.5}\text{O}_3$**   
JETP Letters  
87 (2008) 306 - 310

Veira, J.R. ; Argyriou, D.N. ; Kiefer, K. ; Wolter, A.U.B. ; Alber, D. ; Meissner, M. ; Almairac, R. ; Reehuis, M. ;  
Bordallo, H.N.  
**Structural and magnetic properties of the ferroelectric magnet  $\text{BaMn}_{1-x}\text{Zn}_x\text{F}_4$ , a site diluted square-lattice two-dimensional Heisenberg antiferromagnet with  $S=5/2$**   
Physical Review B  
78 (2008) 054104/1 – 6

Beck, C; Zafra, ASI; Papka, P; Thummerer, S; Azaiez, F; Bednarczyk, P; Courtin, S; Curien, D; Dorvaux, O; Lebhardt, D; Nourreddine, A; Robin, J; Rousseau, M; Von Oertzen, W; Gebauer, B; Kokalova, T; Wheldon, C; De Angelis, G; Gadea, A; Lenzi, S; Szilner, S; Napoli, DR; Catford, WN; Jenkins, DG; Royer, G  
**ALPHA-CLUSTER STATES POPULATED IN Mg-24+C-12**  
International Journal of Modern Physics E-Nuclear Physics  
17 (2008) 2049 - 2054

## SF2.Others

Wolska, A. ; Lawniczak-Jablonska, K. ; Klepka, M.T. ; Jakiela, R. ; Sadowski, J. ; Demchenko, I.N. ; Holub-Krappe, E. ; Persson, A. ; Arvanitis, D.  
**XANES studies of Mn K and L<sub>3,2</sub> edges in the (Ga, Mn)As layers modified by high temperature annealing**  
Acta Physica Polonica A  
114 (2008) 357 - 366

## SF2.Quantum Phenomena

Boiko, V. ; Matas, S. ; Siemensmeyer, K.  
**Preparation and orientation of solid  $^3\text{He}$  crystals for neutron diffraction investigations**  
Journal of Physics: Condensed Matter  
20 (2008) 104246/1 - 6

Huberman, T. ; Tennant, D.A. ; Cowley, R.A. ; Coldea, R. ; Frost, C.D.  
**A study of the quantum classical crossover in the spin dynamics of the 2D S=5/2 antiferromagnet Rb<sub>2</sub>MnF<sub>4</sub>: neutron scattering, computer simulations and analytic theories**  
Journal of Statistical Mechanics: Theory and Experiment  
(2008) P05017

Prokes, K.  
**Uranium intermetallics in high magnetic fields: Neutron diffraction experiments**  
Acta Physica Polonica A  
113 (2008) 209 - 214

Prokes, K. ; Muñoz-Sandoval, E. ; Chinchure, A.D. ; Mydosh, J.A.  
**Competing magnetic structures and magnetic transitions in  $\text{Er}_2\text{Ni}_2\text{Pb}$ : Powder neutron diffraction measurements**  
Physical Review B  
78 (2008) 014425/1 - 11

Prokes, K. ; Sechovsky, V. ; de Boer, F.R. ; Andreev, A.V.

**The field-induced magnetic structure in UIrGe**

Journal of Physics: Condensed Matter

20 (2008) 104221/1 - 3

Prokes, K. ; Wand, Th. ; Andreev, A.V. ; Meissner, M. ; Honda, F. ; Sechovský, V.

**Magnetic specific heat and magnetoresistance of URhSi**

Journal of Alloys and Compounds

460 (2008) 47 - 53

Rule, K. ; Wolter, A.U.B. ; Süllow, S. ; Tennant, D.A. ; Brühl, A. ; Köhler, S. ; Wolf, B. ; Lang, M. ; Schreuer, J.

**Nature of the spin dynamics and 1/3 magnetization plateau in azurite**

Physical Review Letters

100 (2008) 117202/1 - 4

Siemensmeyer, K. ; Wulf, E. ; Mikeska, H. -J. ; Flachbart, K. ; Gabani, S. ; Mat'as, S. ; Priputen, P. ; Efrosimova, A. ; Shitsevalova, N.

**Fractional magnetization plateaus and magnetic order in the Shastry-Sutherland magnet TmB<sub>4</sub>**

Physical Review Letters

101 (17) (2008) 177201/1 - 4

## SF2.Thin films

---

Imperia, P. ; Kandulski, W. ; Kosiorek, A. ; Glaczynska, H. ; Maletta, H. ; Giersig, M.

**Magnetic anisotropy study of triangular-shaped Co nanostructures**

Journal of Magnetism and Magnetic Materials

320 (2008) 2682 - 2687

Lawniczak-Jablonska, K. ; Wolska, A. ; Libera, J. ; Klepka, M.T. ; Sadowski, J. ; Holub-Krappe, E. ; Persson, A. ; Arvanitis, D.

**Ga interstitial site occupation by Mn atoms in GaAs: EXAFS and XANES evidence**

Bulletin of the Polish Synchrotron Radiation Society

7 (2008) 152 - 153

Sakamaki, M. ; Andersson, C. ; Konishi, T. ; Fujikawa, T. ; Holub-Krappe, E. ; Rossner, H. ; Krappe, H. ; Karis, O. ; Persson, A. ; Arvanitis, D.:

**Co L-edge EXAFS analysis of Au/Co/Au magnetic thin films**

In: Proceedings of the 11th Meeting of the Japanese XAFS Society, Egret Himeji, Japan, 6-9 August 2008  
2008, 45 - 46

Schierle, E; Weschke, E; Gottberg, A; Sollinger, W; Heiss, W; Springholz, G; Kaindl, G

**Antiferromagnetic Order with Atomic Layer Resolution In EuTe(111) Films**

Physical Review Letters

101 (2008) 267202

Valencia, S; Gaupp, A; Gudat, W; Abad, L; Balcells, L; Martinez, B

**X-ray magnetic circular dichroism in reflection geometry: A tool for investigating surface magnetism in thin films**

Journal of Applied Physics

104 (2008) 023903

Wolska, A. ; Lawniczak-Jablonska, K. ; Klepka, M.T. ; Sadowski, J. ; Holub-Krappe, E. ; Persson, A. ; Arvanitis, D.

**X-ray absorption and magnetic circular dichroism on MnSb layers grown by MBE**

Bulletin of the Polish Synchrotron Radiation Society

7 (2008) 140 - 141

Wolska, A. ; Lawniczak-Jablonska, K. ; Sadowski, J. ; Holub-Krappe, E. ; Persson, A. ; Arvanitis, D.  
**Towards MnAs nano-clusters in (GaMnAs): L-edge XANES upon post growth annealing**  
In: MAX-Lab Activity Report 2007, eds. Johansson, U. [u.a.]  
Lund, 2008, 400 - 401

## SF6.Others

---

Bordallo, H.N. ; Aldridge, L.P. ; Churchman, G.J. ; Gates, W.P. ; Telling, M.T.F. ; Kiefer, K. ; Fouquet, P. ; Seydel, T. ; Kimber, S.A.J.  
**Quasi-elastic neutron scattering studies on clay interlayer-space highlighting the effect of the cation in confined water dynamics**  
Journal of Physical Chemistry C  
112 (2008) 13982 - 13991

Nunes Bordallo, H.  
**Structure et Dynamique à l'échelle Microscopique des Systèmes Incommensurables, des Oxydes à Magnéto-Résistance Géantes et des Systèmes Biologiques**  
Montpellier, Univ., Habil.-Schr., 2008

## SF8.Dynamics

---

Zizak, I. ; Darowski, N. ; Klaumünzer, S. ; Schumacher, G. ; Gerlach, J.W. ; Assmann, W.  
**Ion-beam-induced collective rotation of nanocrystals**  
Physical Review Letters  
101 (2008) 065503/1 - 4

## SF3 - Materials

---

### SE1.Cells

---

Friedrich, F. ; Sieber, I. ; Klaus, M. ; Genzel, Ch. ; Nickel, N.H.  
**Pulsed-laser deposition of ZnO thin-films on MgO substrates**  
Physica Status Solidi C  
5 (2008) 3288 - 3292

### SE3.Control

---

Abou-Ras, D. ; Gibmeier, J. ; Nolze, G. ; Gholinia, A. ; Konijnenberg, P.  
**On the capability of revealing the pseudosymmetry of the chalcopyrite-type crystal structure**  
Crystal Research and Technology  
43 (2008) 234 - 239

### SF3.Light weight mat.

---

Babcsán, N. ; Horváth, A. ; Várhegyi, Z.S. ; Korniyik, M. ; Filep, Z.S. ; Dianiska, B. ; Vincze, M. ; Garcia-Moreno, F.  
**CaCO<sub>3</sub> blown aluminium foam and equipment for future low gravity tests**  
In: Porous metals and metallic foams : Metfoam 2007 ; proceedings of the Fifth International Conference on ... , September 5 - 7, 2007, Montreal, Canada, eds. Lefebvre, L.P. [u.a.]  
DEStech Publ., Lancaster, Pa, 2008, 115 - 118

Babcsán, N. ; Vinod Kumar, G.S. ; Murty, B.S. ; Garcia-Moreno, F. ; Banhart, J.

**New foam stabilizing additive for aluminium**

In: Porous metals and metallic foams : Metfoam 2007 ; proceedings of the Fifth International Conference on ... , September 5 - 7, 2007, Montreal, Canada., eds. Lefebvre, L.P. [u.a.]  
DEStech Publ., Lancaster, Pa., 2008, 27 - 30

Banhart, J.

**Gold and gold alloy foams**

Gold Bulletin  
41 (2008) 251 - 256

Banhart, J. ; Seeliger, H.-W.

**Aluminium foam sandwich panels: manufacture, metallurgy and applications**

Advanced Engineering Materials  
10 (2008) 793 - 802

Dudka, A. ; Garcia-Moreno, F. ; Wanderka, N. ; Banhart, J.

**Structure and distribution of oxides in aluminium foam**

Acta Materialia  
56 (2008) 3990 - 4001

Garcia-Moreno, F. ; Rack, A. ; Helfen, L. ; Baumbach, T. ; Zabler, S. ; Babcsán, N. ; Banhart, J. ; Martin, T. ; Ponchut, C. ; Di Michiel, M.

**Fast processes in liquid metal foams investigated by high-speed synchrotron x-ray microradioscopy**

Applied Physics Letters  
92 (2008) 134104/1 - 3

Haesche, M. ; Weise, J. ; Garcia-Moreno, F. ; Banhart, J.

**Influence of particle additions on the foaming behaviour of AlSi11/TiH<sub>2</sub> composites made by semi-solid processing**

Material Science and Engineering A  
480 (2008) 283 - 288

Jiménez, C. ; Garcia-Moreno, F. ; Banhart, J. ; Zehl, G.

**Effect of relative humidity on pressure-induced foaming (PIF) of aluminium-based precursors**

In: Porous metals and metallic foams : Metfoam 2007 ; proceedings of the Fifth International Conference on ... , September 5 - 7, 2007, Montreal, Canada, eds. Lefebvre, L.P. [u.a.]  
DEStech Publ., Lancaster, Pa., 2008, 59 - 62

Kadoi, K. ; Babcsán, N. ; Nakae, H. ; Garcia-Moreno, F. ; Banhart, J.

**Methodology for the in-situ observation of Alporas foams using X-ray radioscropy**

In: Porous metals and metallic foams : Metfoam 2007 ; proceedings of the Fifth International Conference on ... , September 5 - 7, 2007, Montreal, Canada, eds. Lefebvre, L.P. [u.a.]  
DEStech Publ., Lancaster, Pa., 2008, 111 - 114

Kolluri, M. ; Mukherjee, M. ; Garcia-Moreno, F. ; Banhart, J. ; Ramamurty, U.

**Fatigue of a laterally constrained closed cell aluminum foam**

Acta Materialia  
56 (2008) 1114 - 1125

Lefebvre, L.-P. ; Banhart, J. ; Dunand, D.C.

**Porous metals and metallic foams: Current status and recent developments**

Advanced Engineering Materials  
10 (2008) 775 - 787

Mukherjee, M. ; Kolluri, M. ; Garcia-Moreno, F. ; Banhart, J. ; Ramamurty, U.

**Deformation mechanisms in constrained monotonic and cyclic compressive loading of Al foam**

In: Porous metals and metallic foams : Metfoam 2007 ; proceedings of the Fifth International Conference on ... , September 5 - 7, 2007, Montreal, Canada, eds. Lefebvre, L.P. [u.a.]  
DEStech Publ., Lancaster, Pa., 2008, 347 - 350

*Rodriguez-Rerez, M.A. ; Solorzano, E. ; Garcia-Moreno, F. ; de Saja, J.A.*

**The time-uncoupled aluminium free expansion: intrinsic anisotropy by foaming under conventional conditions**

In: Porous metals and metallic foams : Metfoam 2007 ; proceedings of the Fifth International Conference on ... , September 5 - 7, 2007, Montreal, Canada, eds. Lefebvre, L.P. [u.a.]  
DEStech Publ., Lancaster, Pa., 2008

*Solorzano, E. ; Garcia-Moreno, F. ; Babscán, N. ; Rodriguez-Perez, M.A. ; Banhart, J.*

**Aluminium foaming monitored by far-infrared thermography: temperature gradients and bubble rupture**

In: Porous metals and metallic foams : Metfoam 2007 ; proceedings of the Fifth International Conference on ... , September 5 - 7, 2007, Montreal, Canada, eds. Lefebvre, L.P. [u.a.]  
DEStech Publ., Lancaster, Pa., 2008, 79 - 82

*Vinod Kumar, G.S. ; Babscán, N. ; Garcia-Moreno, F. ; Murty, B.S. ; Banhart, J.*

**Aluminium based metallic films**

In: Porous metals and metallic foams : Metfoam 2007 ; proceedings of the Fifth International Conference on ... , September 5 - 7, 2007, Montreal, Canada, eds. Lefebvre, L.P. [u.a.]  
DEStech Publ., Lancaster, Pa., 2008, 71 - 74

### **SF3.Microstructure**

---

*Kasyutich, O.I. ; Sarua, A. ; Figueiredo, W. ; Tatchev, D. ; Hoell, A. ; Haas, S. ; Schwarzacher*

**Three-dimensional nanoparticle arrays produced by protein crystallization**

In: Nanoscale phenomena and structures, eds. Kashchiev, D.  
Drinov, Sofia, 2008, 237 - 244

*Kindrachuk, V. ; Wanderka, N. ; Banhart, J. ; Mukherji, D. ; Del Genovese, D. ; Rösler, J.*

**Effect of rhenium addition on the microstructure of the superalloy Inconel 706**

Acta Materialia  
56 (2008) 1609 - 1618

*Lazarev, N. ; Abromeit, C. , Schäublin, R. ; Gotthardt, R.*

**Atomic-scale simulation of martensitic phase transformations in NiAl**

Materials Science and Engineering A  
481-482 (2008) 205 - 208

*Miglierini, M. ; Kanuch, T. ; Pavuk, M. ; Svec, P. ; Schumacher, G. ; Zizak, I. ; Jiraskova, Y.*

**Structural transformations in NANOPERM-type alloys studied by Mössbauer spectrometry and diffraction of synchrotron radiation**

Hyperfine Interactions  
183 (2008) 31 - 35

*Mukherji, D. ; Lackner, J. ; Wanderka, N. ; Kardjilov, N. ; Näth, O. ; Jäger, S. ; Schmitz, F. ; Rösler, J.*

**Coating of meso-porous metallic membranes with oriented channel-like fine pores by pulsed laser deposition**

Nanotechnology  
19 (2008) 065706/1 - 8

*Pavlovic, M. ; Miglierini, M. ; Hinca, R. ; Stancek, S. ; Mustafin, E. ; Fertman, A. ; Golubev, A. ; Strasik, I. ; Schumacher, G.*

**Stu research activities in accelerator physics**

In: Proceedings / 16th Conference of Slovak Physicists, 10. - 13.9.2007, University of Zilina, Zilina, eds.

Reiffers, M.

Kosice, 2008, 43 - 44

*Petrusenko, Y; Bakai, A; Neklyudov, I; Borysenko, V; Barankov, D; Astakhov, O; Macht, MP*

**Recovery kinetics and ordering in irradiated bulk metallic glasses**

Problems of Atomic Science and Technology  
(2) (2008) 62 - 65

*Radiguet, B. ; Blavette, D. ; Wanderka, N. ; Banhart, J. ; Sahoo, K.L.*  
**Segregation-controlled nanocrystallization of Al-Ni-La metallic glass**  
Applied Physics Letters  
92 (2008) 103126/1 - 3

*Sasaki, T.T. ; Hono, K. ; Vierke, J. ; Wollgarten, M. ; Banhart, J.*  
**Bulk nanocrystalline Al<sub>85</sub>Ni<sub>10</sub>La<sub>5</sub> alloy fabricated by spark plasma sintering of atomized amorphous powders**  
Materials Science and Engineering A  
490 (2008) 343 - 350

### SF3.Scattering

---

*Tatchev, D.*  
**Structure analysis of multiphase systems by anomalous small-angle X-ray scattering**  
Philosophical Magazine  
88 (12) (2008) 1751 - 1772

### SF3.Tomo

---

*Hartnig, C. ; Manke, I. ; Kuhn, R. ; Kardjilov, N. ; Banhart, J. ; Lehnert, W.*  
**Cross-sectional insight in the water evolution and transport in polymer electrolyte fuel cells**  
Applied Physics Letters  
92 (2008) 134106/1 - 3

*Hartnig, Ch. ; Kuhn, R. ; Krüger, P. ; Manke, I. ; Kardjilov, N. ; Goebbels, J. ; Müller, B.R. ; Riesemeier, H.*  
**Wassermanagement in Brennstoffzellen - die Bedeutung von hochauflösenden zerstörungsfreien Untersuchungsmethoden**  
MP materials testing : materials and components, technology and application  
50 (2008) 609 - 613

*Kardjilov, N. ; Hilger, A. ; Manke, I. ; Garcia-Moreno, F. ; Banhart, J.*  
**Bragg-edge imaging with neutrons**  
MP materials testing : materials and components, technology and application  
50 (2008) 569 - 571

*Kardjilov, N. ; Hilger, A. ; Manke, I. ; Strobl, M. ; Treimer, W. ; Banhart, J.*  
**Multifunctional tomography instrument with cold neutrons at HMI**  
In: Neutron radiography (8) : proceedings of the 8th world conference, Gaithersburg, Md., USA October 16-19, 2006. WCNR-8, eds. Arif, M. [u.a.]  
Destech Publ., Lancaster, 2008, 28 - 33

*Manke, I. ; Hartnig, C. ; Kardjilov, N. ; Messerschmidt, M. ; Hilger, A. ; Strobl, M. ; Lehnert, W. ; Banhart, J.*  
**Characterization of water exchange and two-phase flow in porous gas diffusion materials by hydrogen-deuterium contrast neutron radiography**  
Applied Physics Letters  
92 (2008) 244101/1 - 3

*Manke, I. ; Kardjilov, N. ; Hilger, A. ; Strobl, M. ; Dawson, M. ; Banhart, J.*  
**Visualisierung dreidimensionaler magnetischer Feldverteilungen mit spin-polarisierten Neutronen**  
MP materials testing : materials and components, technology and application  
50 (2008) 572 - 579

*Matsushima, U. ; Kardjilov, N. ; Hilger, A. ; Graf, W. ; Herppich, W.B.*  
**Application potential of cold neutron radiography in plant science research**  
Journal of Applied Botany and Food Quality  
82 (2008) 90 - 98

*Strobl, M. ; Grünzweig, C. ; Hilger, A. ; Manke, I. ; Kardjilov, N. ; David, C. ; Pfeiffer, F.*

**Neutron dark-field tomography**

Physical Review Letters  
101 (2008) 123902/1 - 4

*Strobl, M. ; Hilger, A. ; Kardjilov, N. ; Manke, I. ; Treimer, W. ; Riemke, M.*

**Time-of-flight spectrum measurements at the neutron imaging facility CONRAD at the Hahn-Meitner-Institute**

In: Neutron radiography (8) : proceedings of the 8th world conference, Gaithersburg, Md., USA October 16-19, 2006. WCNR-8, eds. Arif, M. [u.a.]  
Destech Publ., Lancaster, 2008, 11 - 17

*Witzmann, F. ; Asbach, P. ; Remes, K. ; Hampe, O. ; Hilger, A. ; Paulke, A.*

**Vertebral pathology in an ornithopod dinosaur: A hemivertebra in Dysalotosaurus lettowvorbecki from the Jurassic of Tanzania**

The Anatomical Record  
291 (2008) 1149 - 1155

*Zabler, S. ; Rack, A. ; Manke, I. ; Thermann, K. ; Tiedemann, J. ; Harthill, N. ; Riesemeier, H.*

**High-resolution tomography of cracks, voids and micro-structure in greywacke and limestone**

Journal of Structural Geology  
30 (2008) 876 - 887

---

## SF8.Dynamics

---

Poklonski, NA; Gorbachuk, NI; Shpakovski, SV; Petrov, AV; Lastovskii, SB; Fink, D; Wieck, A  
**Electrical properties of silicon diodes with p(+n) junctions irradiated with Au-197(+26) swift heavy ions**

Nuclear Instruments & Methods in Physics Research B  
266 (2008) 5007 - 5012

---

## SF8.Structures

---

Koteski, V. ; Mahnke, H.-E. ; Belosevic-Cavor, J. ; Cekic, B. ; Schumacher, G.  
**Experimental and theoretical study of lattice relaxation around refractory atoms in nickel**  
Acta Materialia  
56 (2008) 4601 - 4607

---

### SF3 - Materials

#### Addenda to 2007

---

### SF3.Light weight mat.

---

Garcia-Moreno, F. ; Holm, P. ; Banhart, J.

**Metallic foam experiments under microgravity**

In: 18th ESA Symposium on European Rocket and Balloon Programmes and Related Research : 3 - 7 June 2007, Visby, Sweden, eds. Conroy, L.  
ESA Communication Production Off., Noordwijk, 2007, 389 - 392

Mukherjee, M. ; Garcia-Moreno, F. ; Banhart, J.

**Anomalous behaviour of aluminium foams during solidification**

Transactions of the Indian Institute of Metals  
60 (2007) 133 - 136

### SF3.Microstructure

Griesche, A. ; Macht, M.-P. ; Frohberg, G.

**Diffusion in metallic melts**

Defect and Diffusion Forum

266 (2007) 101 - 108

Sahoo, K.L. ; Wollgarten, M. ; Banhart, J.

**Effect of solidification rate and composition on microstructure and crystallization in Al-Ni-La metallic glasses**

Transactions of the Indian Institute of Metals

60 (2007) 349 - 354

### SF5 - Theoretical Physics

#### SF5.Biosystems

Enculescu, M. ; Gholami, A. ; Falcke, M.

**Dynamic regimes and bifurcations in a model of actin-based motility**

Physical Review E

78 (2008) 031915/1 - 10

Gholami, A. ; Falcke, M. ; Frey, E.

**Velocity oscillations in actin-based motility**

New Journal of Physics

10 (2008) 033022/1 - 12

Leonhardt, H. ; Zaks, M.A. ; Falcke, M. ; Schimansky-Geier, L.

**Stochastic hierarchical systems: excitable dynamics**

Journal of Biological Physics

34 (2008) 521 - 538

Schipke, C.G. ; Heidemann, A. ; Skupin, A. ; Peters, O. ; Falcke, M. ; Kettenmann, H.

**Temperature and nitric oxide control spontaneous calcium transients in astrocytes**

Cell Calcium

43 (2008) 285 - 295

### SF6 - Trace Elements

#### SF2.Novel Mat.

Jalarvo, N. ; Bordallo, H. ; Aliouane, N. ; Adams, M.A. ; Pieper, J. ; Argyriou, D.N.

**Dynamics of water in  $\text{Na}_x\text{CoO}_{2-y}\text{H}_2\text{O}$**

Journal of Physical Chemistry B

112 (2008) 703 - 709

Veira, J.R. ; Argyriou, D.N. ; Kiefer, K. ; Wolter, A.U.B. ; Alber, D. ; Meissner, M. ; Almairac, R. ; Reehuis, M. ; Bordallo, H.N.

**Structural and magnetic properties of the ferroelectric magnet  $\text{BaMn}_{1-x}\text{Zn}_x\text{F}_4$ , a site diluted square-lattice two-dimensional Heisenberg antiferromagnet with  $S=5/2$**

Physical Review B

78 (2008) 054104/1 - 6

## SF6.Analysis

---

Bartz, T. ; Wolf, C. ; Alber, D. ; Bartel, J. ; Kyriakopoulos, A.

**Comparison of different analytical methods for the detection of selenium in the stomach of the rat**

In: Metallobiolomics : Analysis, Function, Clinical Trials ; Proceedings of the European Conference on ... ;

HMI, Berlin, Germany, December 06 and 07, 2007, eds. Kyriakopoulos, A. [u.a.]

Utz, München, 2008, 53 - 61

Bartz, T; Bartel, J; Soete, A; Charkiewicz, E; Kyriakopoulos, A

**EXPRESSION PATTERN OF THE UBIQUITIN C-TERMINAL HYDROLASE IN RAT COLON AND THE HUMAN COLON CARCINOMA CELL LINE HT-29**

Anticancer Research

28 (2008) 3207

Bertelsmann, H. ; Bollwein, H. ; Sieme, H. ; Kyriakopoulos, A.

**Iron in equine semen, seminal plasma and spermatozoa**

Animal Reproduction Science

107 (2008) 308 - 309

Grbavac, I. ; Wolf, C. ; Bartel, J. ; Kyriakopoulos, A.

**Comparison of trace element-containing proteins in the cytosol of the rat prostate with trace element-containing proteins in the cytosol of the human prostate carcinoma cell line Du145**

In: Metallobiolomics : Analysis, Function, Clinical Trials ; Proceedings of the European Conference on ... ;

HMI, Berlin, Germany, December 06 and 07, 2007, eds. Kyriakopoulos, A. [u.a.]

Utz, München, 2008, 39 - 45

Lesnyak, V. ; Plotnikov, A. ; Gaponik, N. ; Eychmüller, A.

**Toward efficient blue-emitting thiol-capped Zn<sub>1-x</sub>Cd<sub>x</sub>Se nanocrystals**

Journal of Materials Chemistry

18 (2008) 5142 - 5146

Plotnikov, A. ; Vogt, C. ; Wetzig, K. ; Kyriakopoulos, A.

**A theoretical approach to the interpretation of the transient data in scanning laser ablation inductively coupled plasma mass spectrometry: Consideration of the geometry of the scanning area**

Spectrochimica Acta B

63 (2008) 474 - 483

Schwarm, A. ; Ortmann, S. ; Wolf, C. ; Kühne, R. ; Spretke, T. ; Rietschel, W. ; Osmann, C. ; Clauss, M.

**Fluid and particle retention time in captive pygmy hippopotamus and giant red kangaroo compared to banteng cattle**

In: Metallobiolomics : Analysis, Function, Clinical Trials ; Proceedings of the European Conference on ... ;

HMI, Berlin, Germany, December 06 and 07, 2007, eds. Kyriakopoulos, A. [u.a.]

Utz, München, 2008, 74 - 75

Schwarm, A. ; Ortmann, S. ; Wolf, C. ; Streich, W.J. ; Clauss, M.

**Excretion patterns of fluid and different sized particle passage markers in banteng (*Bos javanicus*) and pygmy hippopotamus (*Hexaprotodon liberiensis*): Two functionally different foregut fermenters**

Comparative Biochemistry and Physiology, Part A

150 (2008) 32 - 39

Strenziolk, R; Hinz, S; Wolf, C; Conrad, T; Krause, H; Lingnau, A; Lein, M; Miller, K; Schrader, M

**Serum proteomic profiling by surface-enhanced laser desorption/ionization time-of-flight mass spectrometry in testicular germ cell cancer patients**

European Urology Supplements

7 (2008) 83

Wolf, C. ; Strenziok, R. ; Kyriakopoulos, A.

**Determination of cadmium in small amounts of urine by inductively coupled plasma mass spectrometry**

In: Metallobiomics : Analysis, Function, Clinical Trials ; Proceedings of the European Conference on ... ; HMI, Berlin, Germany, December 06 and 07, 2007, eds. Kyriakopoulos, A. [u.a.]  
Utz, München, 2008, 76 - 82

---

### SF6.Clinical app.

---

Wolf, C. ; Strenziok, R. ; Kyriakopoulos, A.

**Elevated metallothionein-bound cadmium concentrations in urine from bladder carcinoma patients, investigated by size exclusion chromatography - inductively coupled plasma mass spectrometry**

Analytica Chimica Acta

631 (2008) 218 - 222

---

### SF6.Others

---

Bordallo, H.N. ; Aldridge, L.P. ; Churchman, G.J. ; Gates, W.P. ; Telling, M.T.F. ; Kiefer, K. ; Fouquet, P. ; Seydel, T. ; Kimber, S.A.J.

**Quasi-elastic neutron scattering studies on clay interlayer-space highlighting the effect of the cation in confined water dynamics**

Journal of Physical Chemistry C

112 (2008) 13982 - 13991

Nunes Bordallo, H.

**Structure et Dynamique à l'échelle Microscopique des Systèmes Incommensurables, des Oxydes à Magnéto-Résistance Géantes et des Systèmes Biologiques**

Montpellier, Univ., Habil.-Schr., 2008

---

### SF6.Proteins

---

Bartel, J. ; Plotnikov, A. ; Charkiewicz, E. ; Söte, A. ; Kyriakopoulos, A.

**Distribution of selenium and selenoproteins in the adrenal gland of the rat**

In: Metallobiomics : Analysis, Function, Clinical Trials ; Proceedings of the European Conference on ... ; HMI, Berlin, Germany, December 06 and 07, 2007, eds. Kyriakopoulos, A. [u.a.]  
Utz, München, 2008, 46 - 52

Bertelsmann, H.; Behne, D.; Kühbacher, M.; Weseloh, G. ; Wolf, C.; Alber, D.; Bukalis, G. ; Kyriakopoulos, A.

**Functions of selenium-containing proteins in the male reproductive system**

In: Metallobiomics : Analysis, Function, Clinical Trials ; Proceedings of the European Conference on ... ; HMI, Berlin, Germany, December 06 and 07, 2007, eds. Kyriakopoulos, A. [u.a.]  
Utz, München, 2008, 87 - 92

Charkiewicz, E. ; Bartel, J. ; Söte, A. ; Kyriakopoulos, A.

**Determination of the total antioxidant status in the rat liver and comparison with GPx activity**

In: Metallobiomics : Analysis, Function, Clinical Trials ; Proceedings of the European Conference on ... ; HMI, Berlin, Germany, December 06 and 07, 2007, eds. Kyriakopoulos, A. [u.a.]  
Utz, München, 2008, 62 - 67

Graebert, A. ; Bräuer, A.U. ; Savaskan, N.E. ; Kyriakopoulos, A.

**Selenocysteine lyase - effect of overexpression at selenium tolerance and selenoprotein expression in HepG2**

In: Metallobiomics : Analysis, Function, Clinical Trials ; Proceedings of the European Conference on ... ; HMI, Berlin, Germany, December 06 and 07, 2007, eds. Kyriakopoulos, A. [u.a.]  
Utz, München, 2008, 128 - 132

Hoppe, B; Brauer, AU; Kuhbacher, M; Savaskan, NE; Behne, D; Kyriakopoulos, A  
**Biochemical analysis of selenoprotein expression in brain cell lines and in distinct brain regions**  
Cell and Tissue Research  
332 (2008) 403 - 414

Kyriakopoulos, A. ; Bartel, J. ; Wolf, C. ; Kühbacher, M. ; Alber, D. ; Behne, D.  
**Localization of a new membrane-bound selenoprotein in eukaryotic cells**  
In: Metallobiomics : Analysis, Function, Clinical Trials ; Proceedings of the European Conference on ... ;  
HMI, Berlin, Germany, December 06 and 07, 2007, eds. Kyriakopoulos, A. [u.a.]  
Utz, München, 2008, 144 - 150

Plotnikov, A. ; Bartel, J. ; Wolf, C. ; Kyriakopoulos, A.  
**Identification of trace element bound proteins after electrophoretic separation under native and denaturing conditions in gels and blot membranes by laser ablation inductively coupled plasma mass spectrometry**  
In: Metallobiomics : Analysis, Function, Clinical Trials ; Proceedings of the European Conference on ... ;  
HMI, Berlin, Germany, December 06 and 07, 2007, eds. Kyriakopoulos, A. [u.a.]  
Utz, München, 2008, 68 - 73

## SF8 - Structure and Dynamics

### SF8-Others

Saroch, M; Srivastava, S; Fink, D; Chandra, A  
**TEMPOS devices as humidity sensors**  
Radiation Effects and Defects in Solids  
163 (2008) 645 - 653

### SF8.Dynamics

Dhamodaran, S; Saad, A; Fink, D  
**Application of network theory for the description of nanocluster distributions in ion track electronics**  
Radiation Effects and Defects in Solids  
163 (2008) 749 - 759

Fadanelli, R.C. ; Grande, P.L. ; Schiwietz, G.  
**Impact-parameter dependence of the energy loss of fast molecular clusters in hydrogen**  
Physical Review A  
77 (2008) 032902/1 - 10

Fink, D; Chandra, A; Fahrner, WR; Hoppe, K; Winkelmann, H; Saad, A; Alegaonkar, P; Berdinsky, A;  
Grasser, D; Lorenz, R  
**Ion track-based electronic elements**  
VACUUM  
82 (2008) 900 - 905

Fink, D; Saad, A; Dhamodaran, S; Chandra, A; Fahrner, WR; Hoppe, K; Chadderton, LT  
**Multiparametric electronic devices based on nuclear tracks**  
Radiation Measurements  
43 [Suppl.1] (2008) S546 - S551

Grande, P.L. ; Nagamine, L.C.C.M. ; Morais, J. ; Alves, M.C.M. ; Schiwietz, G. ; Roth, M. ; Schattat, B. ;  
Baggio-Saitovitch, E.  
**High-energy ion beam irradiation of Co/NiFe/Co/Cu multilayers: Effects on the structural, transport and magnetic properties**  
Thin Solid Films  
516 (2008) 2087 - 2093

Hazama, M. ; Kitsudo, Y. ; Nishimura, T. ; Hoshino, Y. ; Grande, P.L. ; Schiwietz, G. ; Kido, Y.

**Asymmetric line shapes for medium energy H and He ions undergoing a large-angle collision**

Physical Review B

78 (2008) 193402/1 - 4

Hodoroaba, V.-D. ; Klemm, D. ; Reinholz, U. ; Strub, E. ; Röhrich, J. ; Bohne, W. ; Hoffmann, V. ; Wetzig, K.

**Potential candidates of certified reference material for determination of hydrogen concentration with glow discharge optical emission Spectrometry (GD-OES) --- a feasibility study**

Journal of Analytical Atomic Spectrometry

(2008) (1 - 7)

Hoppe, K; Fahrner, WR; Fink, D; Dhamodaran, S; Petrov, A; Chandra, A; Saad, A; Faupel, F; Chakravadhanula, VSK; Zaporotchenko, V

**An ion track based approach to nano- and micro-electronics**

Nuclear Instruments & Methods in Physics Research B

266 (2008) 1642 - 1646

Hoppe, K. ; Fink, D. ; Fahrner, W.R.

**Metalized nuclear tracks in quasi metal oxide semiconductor structures for electronic devices**

Journal of the Electrochemical Society

155 (2008) P7 - P11

Mahnke, H.-E. ; Zizak, I. ; Schubert-Bischoff, P. ; Koteski, V.

**Ion-beam induced nano-sized Ag-metal clusters in glass**

Materials Science and Engineering B

149 (2008) 200 - 203

Neidhardt, J. ; Mraz, St. ; Schneider, J.M. ; Strub, E. ; Bohne, W. ; Liedke, B. ; Möller, W. ; Mitterer, Ch.

**Experiment and simulation of the compositional evolution of Ti-B thin films deposited by sputtering of a compound target**

Journal of Applied Physics

104 (2008) 063304/1 - 10

Papaléo, R.M. ; Silva, M.R. ; Leal, R. ; Grande, P.L. ; Roth, M. ; Schattat, B. ; Schiwietz, G.

**Direct evidence for projectile charge-state dependent crater formation due to fast ions**

Physical Review Letters

101 (2008) 167601/1 - 4

Pezzi, R.P. ; Krug, C. ; Grande, P.L. ; da Rosa, E.B.O. ; Schiwietz, G. ; Baumvol, I.J.R.

**Analytical energy loss distribution for accurate high resolution depth profiling using medium energy ion scattering**

Applied Physics Letters

92 (2008) 164102/1 - 3

Saroch, M; Srivastava, S; Fink, D; Chandra, A

**Room Temperature Ammonia Gas Sensing Using Mixed Conductor based TEMPOS Structures**

SENSORS

8 (2008) 6355 - 6370

Schiwietz, G. ; Czerski, K. ; Hellhammer, R. ; Roth, M. ; Staufenbiel, F. ; Fadanelli, R.C. ; Grande, P.L.

**Search for short-time phase effects in the electronic damage evolution - A case study with silicon**

Nuclear Instruments and Methods in Physics Research B

266 (2008) 1287 - 1293

Zizak, I. ; Darowski, N. ; Klaumünzer, S. ; Schumacher, G. ; Gerlach, J.W. ; Assmann, W.

**Ion-beam-induced collective rotation of nanocrystals**

Physical Review Letters

101 (2008) 065503/1 - 4

**SF8.Structures**

Bharuth-Ram, K; Gunnlaugsson, HP; Mantovan, R; Naicker, VV; Naidoo, D; Sielemann, R; Weyer, G; Aigne, T

**Mossbauer study of Fe in 3C-SiC following Mn-57 implantation**

Hyperfine Interactions

184 (2008) 207 - 211

Koteski, V. ; Mahnke, H.-E. ; Belosevic-Cavor, J. ; Cekic, B. ; Schumacher, G.

**Experimental and theoretical study of lattice relaxation around refractory atoms in nickel**

Acta Materialia

56 (2008) 4601 - 4607

Sielemann, R; Kobayashi, Y; Yoshida, Y; Gunnlaugsson, HP; Weyer, G

**Magnetism at single isolated iron atoms implanted in graphite**

Physical Review Letters

101 (2008) 137206

Zeitz, W.-D. ; Dogra, R. ; Byrne, A.P. ; Shrestha, S.K. ; Edge, A.V.J., ; Timmers, H.

**Magnetism of isolated cadmium atoms in vacancy-associated sites in nickel**

Physical Review B

78 (2008) 014406/1 - 7

**SFN1 - Magnetism and Superconductivity of Quantum Materials****SF.N1**

Kim, J.-H. ; Ji, S.; Lee, S.-H. ; Lake, B.; Yildirim, T. ; Nojiri, H. ; Kikuchi, H. ; Habicht, K. ; Qiu, Y. ; Kiefer, K.

**External magnetic field effects on a distorted kagome antiferromagnet**

Physical Review Letters

101 (2008) 107201/1 - 4

Ohira-Kawamura, S. ; Shishido, H. ; Kawano-Furukawa, H. ; Lake, B. ; Wiedenmann, A. ; Kiefer, K. ; Shibauchi, T. ; Matsuda, Y.

**Anomalous flux line lattice in CeCoIn<sub>5</sub>**

Journal of the Physical Society of Japan

77 (2) (2008) 023702/1 - 4

## SE - Solar Energy Research

### SE1 - Silicon Photovoltaics

#### SE1.Cells

Angermann, H. ; Rappich, J. ; Korte, L. ; Sieber, I. ; Conrad, E. ; Schmidt, M. ; Hübener, K. ; Polte, J. ; Hauschild, J.

**Wet-chemical passivation of atomically flat and structured silicon substrates for solar cell application**

Applied Surface Science

254 (2008) 3615 - 3625

Becker, C. ; Dogan P. ; Gorka, B. ; Ruske, F. ; Hänel, T. ; Behrends, J. ; Fenske, F. ; Lips, K. ; Gall, S. ; Rech, B.

**Polycrystalline silicon thin-film solar cells on ZnO:Al coated glass**

In: Amorphous and Polycrystalline Thin-Film Silicon Science and Technology, eds. Flewitt, A. [u.a.] Materials Research Society, Warrendale, Pa., 2008, 1066-A06-01

Becker, C. ; Dogan, P. ; Ruske, F. ; Gorka, B. ; Sánchez-Vicens, A. ; Conrad, E. ; Gall, S. ; Rech, B. ; Hüpkes, J.

**SOLID PHASE CRYSTALLIZED SILICON THIN-FILM SOLAR CELLS ON TEMPERATURE-STABLE ZNO:AL CONTACT LAYERS**

In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot, D. [u.a.]

WIP Renewable Energies, München, 2008, 2045 - 2048

Behrends, J. ; Schnegg, A. ; Boehme, C. ; Haas, S. ; Stiebig, H. ; Finger, F. ; Rech, B. ; Lips, K.

**Recombination and transport in microcrystalline pin solar cells studied with pulsed electrically detected magnetic resonance**

Journal of Non-Crystalline Solids

354 (2008) 2411 - 2415

Berginski, M. ; Hüpkes, J. ; Reetz, W. ; Rech, B. ; Wuttig, M

**Recent development on surface-textured ZnO:Al films prepared by sputtering for thin-film solar cell application**

Thin Solid Films

516 (2008) 5836 - 5841

Berginski, M; Hupkes, J; Gordijn, A; Reetz, W; Watjen, T; Rech, B; Wuttig, M

**Experimental studies and limitations of the light trapping and optical losses in microcrystalline silicon solar cells**

Solar Energy Materials and Solar Cells

92 (2008) 1037 - 1042

Dogan, P; Rudigier, E; Fenske, F; Lee, KY; Gorka, B; Rau, B; Conrad, E; Gall, S

**Structural and electrical properties of epitaxial Si layers prepared by E-beam evaporation**

Thin Solid Films

516 (2008) 6989 - 6993

Ellmer, K. ; Klein, A. ; Rech, B. [Eds.]

**Transparent Conductive Zinc Oxide : Basics and Applications in Thin Film Solar Cells**

(Springer Series in Materials Science ; 104)

Springer, Berlin, 2008

Fenske, F. ; Schulze, S. ; Hietschold, M. ; Schmidbauer, M.

**Structural investigations of homoepitaxial Si films grown at low temperature by pulsed magnetron sputtering on Si(111) substrates**

Thin Solid Films

516 (2008) 4777 - 4783

Friedrich, F. ; Sieber, I. ; Klaus, M. ; Genzel, Ch.; Nickel, N.H.

**Pulsed-laser deposition of ZnO thin-films on MgO substrates**

Physica Status Solidi C

5 (2008) 3288 - 3292

Fuhs, W.

**Recombination and transport through localized states in hydrogenated amorphous and microcrystalline silicon**

Journal of Non-Crystalline Solids

354 (2008) 2067 - 2078

Gliesche, A. ; Michel, C. ; Rajevac, V. ; Lips, K. ; Baranovskii, S.D. ; Gebhard, F. ; Boehme, C.

**Effect of exchange coupling on coherently controlled spin-dependent transition rates**

Physical Review B

77 (2008) 245206/1 - 7

Hüpkes, J. ; Müller, J. ; Rech, B.

**Texture etched ZnO: Al for silicon thin film solar cells**

In: Transparent Conductive Zinc Oxide : Basics and Applications in Thin Film Solar Cells, eds. Ellmer, K.[u.a.] Springer, Berlin, 2008, 359 - 413

Kilper, T. ; van den Donker, M.N. ; Carius, R. ; Rech, B. ; Bräuer, G. ; Repmann, T.

**Process control of high rate microcrystalline silicon based solar cell deposition by optical emission spectroscopy**

Thin Solid Films

516 (2008) 4633 - 4638

Lee, K.Y. ; Dogan, P. ; Ruske, F. ; Gorka, B. ; Gall, S. ; Rech, B. ; Hüpkes, J.

**The properties of poly-Si films grown on ZnO:Al coated borofloat glass by aluminium-induced layer exchange (ALILE) process**

In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot, D. [u.a.]

WIP Renewable Energies, München, 2008, 2261 - 2264

Lee, K.Y. ; Muske, M. ; Gordon, I. ; Berginski, M. ; D'Haen, J. ; Hüpkes, J. ; Gall, S. ; Rech, B.

**Large-grained poly-Si films on ZnO:Al coated glass substrates**

Thin Solid Films

516 (2008) 6869 - 6872

Nickel, N.H. ; von Maydell, K.

**Influence of laser crystallization on hydrogen bonding in poly-Si**

Physica Status Solidi C

5 (2008) 3243 - 3247

Saleh, R; Nickel, NH

**The influence of Fermi energy on structural and electrical properties of laser crystallized P-doped amorphous silicon**

Applied Surface Science

254 (2008) 3324 - 3330

Schaefer, S. ; Huebener, K. ; Harneit, W. ; Boehme, C. ; Fostiropoulos, K. ; Angermann, H. ; Rappich, J. ; Behrends, J. ; Lips, K.

**Thin film engineering for N@C<sub>60</sub> quantum computers: Spin detection and device patterning approaches**

Solid State Sciences

10 (2008) 1314 - 1321

Schaefer, S. ; Saremi, S. ; Fostiropoulos, K. ; Behrends, J. ; Lips, K. ; Harneit, W.

**Electrical detection of coherent spin pair oscillations in ZnPc devices**

Physica Status Solidi B

245 (2008) 2120 - 2123

Secouard, C. ; Ducros, C. ; Roca i Cabarrocas, P. ; Duffar, T. ; Gorka, B. ; Focsa, A. ; Sanchez, F.  
**Solid phase crystallized silicon thin films deposited by high rate electron beam evaporation: improved structural and electrical properties**

In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot, D. [u.a.]  
WIP Renewable Energies, München, 2008, 2236 - 2241

Weizman, M. ; Nickel, N.H. ; Sieber, I. ; Yan, B.  
**Laser-induced self-organization in silicon-germanium thin films**  
Journal of Applied Physics  
103 (2008) 093536/1 - 10

## SE1.Hetero

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Amkreutz, D. ; Groth, C. ; Ong, K. ; Müller, J. ; Didschuns, I. ; Klamm, C. ; Schmidt, M.  
**Electron beam crystallised thin film silicon solar cell on floatglass**

In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot D. [u.a.]  
WIP Renewable Energies, München, 2008, 2250 - 2253

Angermann, H.  
**Passivation of structured p-type silicon interfaces: Effect of surface morphology and wet-chemical pre-treatment**  
Applied Surface Science  
254 (2008) 8067 - 8074

Angermann, H. ; Korte, L. ; Rappich, J. ; Conrad, E. ; Sieber, I. ; Schmidt, M. ; Hübener, K. ; Hauschild, J.  
**Optimisation of electronic interface properties of a-Si:H/c-Si hetero-junction solar cells by wet-chemical surface pre-treatment**  
Thin Solid Films  
516 (2008) 6775 - 6781

Angermann, H. ; Rappich, J. ; Sieber, I. ; Hübener, K. ; Hauschild, J.  
**Smoothing and passivation of special Si(111) substrates: studied by SPV, PL, AFM and SEM measurements**  
Analytical and Bioanalytical Chemistry  
390 (2008) 1463 - 1470

Angermann, H. ; Schulze, T.F. ; Conrad, E. ; Rappich, J. ; Korte, L. ; Schmidt, M.  
**Cleaning and passivation of structured n-type Si substrates: preparation and interface properties of a-Si:H/c-Si hetero solar cells**  
In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot, D. [u.a.]  
WIP Renewable Energies, München, 2008, 1422 - 1426

Angermann, H. ; Rappich, J.  
**Surface states and recombination loss on wet-chemically passivated Si studied by Surface Photovoltage (SPV) and Photoluminescence (PL)**  
Solid State Phenomena  
134 (2008) 41 - 44

Haschke, J. ; Stangl, R. ; Bivour, M. ; Conrad, E. ; Korte, L. ; Schmidt, M. ; Lips, K. ; Rech, B.  
**New rear contacted amorphous/crystalline silicon heterojunction solar cells**  
In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot, D. [u.a.]  
WIP Renewable Energies, München, 2008, 1652 - 1656

Hinrichs, K. ; Roodenko, K. ; Rappich, J.

**In situ monitoring of the etching of thin silicon oxide films in diluted NH<sub>4</sub>F by IR ellipsometry**

Electrochemistry Communications

10 (2008) 315 - 318

Intelmann, C.M. ; Hinrichs, K. ; Syritski, V. ; Yang, F. ; Rappich, J.

**Recombination behaviour at the ultrathin polypyrrole film/silicon interface investigated by in-situ pulsed photoluminescence**

Japanese Journal of Applied Physics

47 (2008) 554 - 557

Intelmann, C.M. ; Syritski, V. ; Tsankov, D. ; Hinrichs, K. ; Rappich, J.

**Ultrathin polypyrrole films on silicon substrates**

Electrochimica Acta

53 (2008) 4046 - 4050

Korte, L. ; Bastide, S. ; Lévy-Clément, C.

**Measurements of effective optical reflectivity using a conventional flatbed scanner - Fast assessment of optical layer properties**

Solar Energy Materials and Solar Cells

92 (2008) 844 - 850

Korte, L. ; Bastide, S. ; Lévy-Clément, C.

**Fast measurements of effective optical reflectivity using a conventional flatbed scanner**

In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot, D. [u.a.]

WIP Renewable Energies, München, 2008, 1431 - 1436

Korte, L. ; Schmidt, M.

**Investigation of gap states in phosphorous-doped ultra-thin a-Si:H by near-UV photoelectron spectroscopy**

Journal of Non-Crystalline Solids

354 (2008) 2138 - 2143

Röller, R. ; Berghoff, B. ; Bätzner, D. ; Spangenberg, B. ; Kurz, H. ; Schmidt, M. ; Stegemann, B.

**Si/SiO<sub>2</sub> multiple quantum wells for all silicon tandem cells: Conductivity and photocurrent measurements**

Thin Solid Films

516 (2008) 6763 - 6766

Roodenko, K. ; Rappich, J. ; Gensch, M. ; Esser, N. ; Hinrichs, K.

**Studies of electrochemically grafted thin organic layers on inorganic surfaces with infrared spectroscopic ellipsometry**

Applied Physics A

90 (2008) 175 - 178

Sievert, W. ; Zimmermann, K.-U. ; Hartmann, B. ; Klimm, C. ; Jacob, K. ; Angermann, H.

**Surface texturization and interface passivation of mono-crystalline silicon substrates by wet chemical treatments**

In: Ultra clean processing of semiconductor surfaces : UCPSS 2008. 9th International Symposium on...

Abstract Book. September 21-24, 2008, Bruges, Belgium

2008, 156 - 157

Stangl, R. ; Haschke, J. ; Bivour, M. ; Schmidt, M. ; Lips, K. ; Rech, B.

**Planar rear emitter back contact amorphous/crystalline silicon heterojunction solar cells (RECASH / PRECASH)**

In: 33rd IEEE Photovoltaic Specialists Conference, San Diego, CA, USA, May 11-16, 2008

2008

*Stegemann, B. ; Schoepke, A. ; Schmidt, M.*

**Structure and photoelectrical properties of SiO<sub>2</sub>/Si/SiO<sub>2</sub> single quantum wells prepared under ultrahigh vacuum conditions**

Journal of Non-Crystalline Solids  
354 (2008) 2100 - 2104

*Stegemann, B. ; Sixtensson, D. ; Lußky, T. ; Schoepke, A. ; Didschuns, I. ; Rech, B. ; Schmidt, M.*

**Ultrathin SiO<sub>2</sub> layers on Si(111): preparation, interface gap states and the influence of passivation**

Nanotechnology  
19 (2008) 424020/1 - 8

*Stegemann, B. ; Sixtensson, D. ; Lussky, T. ; Schoepke, A. ; Schmidt, M.*

**Si/SiO<sub>2</sub> quantum well and quantum dot structures: atomic-scale preparation and characterization with respect to photovoltaic application**

In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot, D. [u.a.]  
WIP Renewable Energies, München, 2008, 62 - 65

*Stegemann, B. ; Sixtensson, D. ; Schmidt, M.*

**Electronic properties and gap state defect passivation of Si/SiO<sub>2</sub> nanostructures**

In: Proceedings of the 20th Workshop on Quantum Solar Energy Conversion. Quantsol 2008  
2008

*Stegemann, B. ; Lussky, T. ; Schoepke, A. ; Schmidt, M.*

**Photoconductivity in Si/SiO<sub>2</sub> single quantum wells and quantum dot layers**

Solar Energy: New Materials and Nanostructured Devices for High Efficiency [electronic resource]. Within:  
Optical Society of America (OSA) - Optics InfoBase Optical Society of America (OSA)  
(2008) SWC3

*Suwito, D. ; Roth, T. ; Pysch, D. ; Korte, L. ; Richter, A. ; Janz, S. ; Glunz, S.W.*

**Detailed study on the passivation mechanism of a-Si<sub>x</sub>C<sub>1-x</sub> for the solar cell rear side**

In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot, D. [u.a.]  
WIP Renewable Energies, München, 2008, 1023 - 1028

## SE1.Others

*Birdwell, A.G. ; Littler, C.L. ; Glosser, R. ; Rebien, M. ; Henrion, W. ; Stauß, P. ; Behr, G.*

**Evidence for an indirect gap in β-FeSi<sub>2</sub> epilayers by photoreflectance spectroscopy**

Applied Physics Letters  
92 (2008) 211901/1 - 3

*Firkowska, I. ; Godehardt, E. ; Giersig, M*

**Interaction Between Human Osteoblast Cells and Inorganic Two-Dimensional Scaffolds Based on Multiwalled Carbon Nanotubes: A Quantitative AFM Study**

Advanced Functional Materials  
18 (2008) 3765 - 3771

*Gluba, M.A. ; Friedrich, F. ; Lips, K. ; Nickel, N.H.*

**ESR investigations on hydrogen-induced hyperfine splitting features in ZnO**

Superlattices and Microstructures  
43 (2008) 24 - 27

*Hinrichs, K. ; Röseler, A. ; Roodenko, K. ; Rappich, J.*

**Surface-enhanced infrared absorption: Infrared ellipsometry of Au evaporated ultrathin organic films**

Applied Spectroscopy  
62 (2008) 121 - 124

Okaufji, A. ; Schnegg, A. ; Schleicher, E. ; Möbius, K. ; Weber, S.

**G-tensors of the flavin adenine dinucleotide radicals in glucose oxidase: A comparative multifrequency electron paramagnetic resonance and electron-nuclear double resonance study**

Journal of Physical Chemistry B

112 (2008) 3568 - 3574

Polovyanenko, D.N. ; Bagryanskaya, E.G. ; Schnegg , A. ; Möbius, K. ; Coleman, A.W. ; Ananchenko, G.S. ; Udachin, K.A. ; Ripmeester, J.A.

**Inclusion of 4-methoxy-2,2,6,6-tetramethylpiperidine-N-oxyl in a calixarene nanocapsule in the solid state**

Physical Chemistry Chemical Physics

10 (2008) 1 - 9

Ruske, F. ; Pflug, A. ; Sittinger, V. ; Werner, W. ; Szyszka, B. ; Christie, D.J.

**Reactive deposition of aluminium-doped zinc oxide thin films using high power pulsed magnetron sputtering**

Thin Solid Films

516 (2008) 4472 - 4477

Schulze, TF; Bruhwiler, M; Hafliger, PS; Kazakov, SM; Niedermayer, C; Mattenberger, K; Karpinski, J; Batlogg, B

**Spin fluctuations, magnetic long-range order, and Fermi surface gapping in  $\text{Na}_x\text{CoO}_2$**

Physical Review B

78 (2008) 205101

Singh, J.; Baessler, H.; Kugler, S.

**A direct approach to study radiative emission from triplet excitations in molecular semiconductors and conjugated polymers**

The Journal of Chemical Physics

129 (2008) 041103/1 - 4

Stegemann, B.

**Nanotribologie: Grundlagen von Reibung und Verschleiß**

Galvanotechnik

(11) (2008) 2706 - 2713

Tribollet, J. ; Behrends, J. ; Lips, K.

**Ultra long spin coherence time for  $\text{Fe}^{3+}$  in  $\text{ZnO}$ : A new spin qubit**

Europhysics Letters

84 (2008) 20009/p1 - p5

Weizman, M; Nickel, NH; Sieber, I; Yan, B; Fostopoulos, K

**Laser-induced self organization of silicon-germanium hillocks for field emission displays**

Physica Status Solidi C - Current Topics in Solid State Physics

5 (2008) 3239 - 3242

---

## SE2.Concepts

---

Mwabora, J.M. ; Ellmer, K. ; Belaidi, A. ; Rappich, J. ; Bohne, W. ; Röhrich, J. ; Dittrich, Th.

**Reactively sputtered  $\text{TiO}_2$  layers on  $\text{SnO}_2:\text{F}$  substrates: A Raman and surface photovoltaic study**

Thin Solid Films

516 (2008) 3841 - 3846

## SE2.Contacts

---

*Powalla, M. ; Breyer, W. ; Lux-Steiner, M. ; Rech, B.*

**Von der Grundlagenforschung zur Produktion - Entwicklungspotenziale der Dünnschichtphotovoltaik an Beispielen aus der Si- und CIS-Technologie**

In: Produktionstechnologien für die Solarenergie. Jahrestagung des Forschungsverbunds Sonnenenergie...

26. - 27. September 2007, Leibniz Universität Hannover, eds. Stadermann, G.

Forschungsverbund Sonnenenergie, Berlin, 2008, 89 - 95

## SE3.Control

---

*Abou-Ras, D. ; Kaufmann, C.A. ; Schöpke, A. ; Eicke, A. ; Döbeli, M. ; Gade, B. ; Nunney, T.*

**Elemental distribution profiles across Cu(In,Ga)Se<sub>2</sub> solar-cell absorbers acquired by various techniques**

In: EMC 2008 : 14th European Microscopy Congress, 1 - 5 September 2008, Aachen, Germany. Vol. 1:

Instrumentation and methods, eds. Luysberg. M. [u.a.]

Springer, Berlin, 2008, 741

## SE2 - Heterogeneous Materials Systems

### SE1.Cells

---

*Schaefer, S. ; Saremi, S. ; Fostiropoulos, K. ; Behrends, J. ; Lips, K. ; Harneit, W.*

**Electrical detection of coherent spin pair oscillations in ZnPc devices**

Physica Status Solidi B

245 (2008) 2120 - 2123

### SE1.Others

---

*Aé, L. ; Chen, J. ; Lux-Steiner, M.Ch.*

**Hybrid flexible vertical nanoscale diodes prepared at low temperature in large area**

Nanotechnology

19 (2008) 475201/1 - 4

*Weizman, M; Nickel, NH; Sieber, I; Yan, B; Fostiropoulos, K*

**Laser-induced self organization of silicon-germanium hillocks for field emission displays**

Physica Status Solidi C - Current Topics in Solid State Physics

5 (2008) 3239 - 3242

### SE2.Analytics

---

*Dittrich, T. ; Kieven, D. ; Rusu, M. ; Belaidi, A. ; Tornow, J. ; Schwarzbürg, K. ; Lux-Steiner, M.*

**Current-voltage characteristics and transport mechanism of solar cells based on ZnO-nanorods/In<sub>2</sub>S<sub>3</sub>/CuSCN**

Applied Physics Letters

93 (2008) 053113/1 - 3

*Dittrich, Th. ; Bönisch, S. ; Zabel, P. ; Dube, S.*

**High precision differential measurement of surface photovoltage transients on ultrathin CdS layers**

Review of Scientific Instruments

79 (2008) 113903/1 - 6

*Fuentes Marrón, D. ; Lehmann, S. ; Lux-Steiner, M.Ch.*

**Growth of isolated and embedded Cu-containing chalcopyrite clusters and nanocrystals by dry processing**

Physical Review B

77 (2008) 085315/1 - 10

Glatzel, Th. ; Rusu, M. ; Sadewasser, S. ; Lux-Steiner, M.Ch.

**Surface photovoltage analysis of thin CdS layers on polycrystalline chalcopyrite absorber layers by Kelvin probe force microscopy**

Nanotechnology

19 (2008) 145705/1 - 7

Mönig, H. ; Lauermann, I. ; Grimm, A. ; Camus, C. ; Kaufmann, C.A. ; Pistor, P. ; Jung, Ch. ; Kropp, T. ; Lux-Steiner, M.C. ; Fischer, Ch.-H.

**Controlled variation of the information depth by angle dependent soft X-ray emission spectroscopy: A study on polycrystalline Cu(In,Ga)Se<sub>2</sub>**

Applied Surface Science

255 (2008) 2474 - 2477

Sadewasser, S. ; Bremsteller, W. ; Plake, T. ; Kaufmann, C.A. ; Pettenkofer, Ch.

**Microscopic investigation of the CdS buffer layer growth on Cu(In,Ga)Se<sub>2</sub> absorbers**

Journal of Vacuum Science and Technology B

26 (2008) 901 - 903

---

## SE2.Chemistry

---

Camus, C. ; Allsop, N.A. ; Gledhill, S.E. ; Bohne, W. ; Röhricht, J. ; Lauermann, I. ; Lux-Steiner, M. C. ; Fischer, Ch.-H.

**Properties of Spray ILGAR CuInS<sub>2</sub> thin films**

Thin Solid Films

516 (2008) 7026 - 7030

Sáez-Araoz R. ; Ennaoui, A. ; Kropp, T. ; Veryaeva, E. ; Niesen, T.P. ; Lux-Steiner, M.Ch.

**Use of different Zn precursors for the deposition of Zn(S,O) buffer layers by chemical bath for chalcopyrite based Cd-free thin-film solar cells**

Physica Status Solidi A

205 (2008) 2330 - 2334

Sáez-Araoz R. ; Ennaoui, A. ; Niesen, T.P. ; Neisser, A. ; Wilhelmi, K. ; Lux-Steiner, M.Ch.

**High performance thin film Cu-chalcopyrite pv-devices with a Zn(S,O) buffer layer**

In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot, D. [u.a.]

WIP Renewable Energies, München, 2008, 2133 - 2136

---

## SE2.Concepts

---

Anta, JA; Mora-Sero, I; Dittrich, T; Bisquert, J

**Interpretation of diffusion coefficients in nanostructured materials from random walk numerical simulation**

Physical Chemistry Chemical Physics

10 (2008) 4478 - 4485

Bär, M. ; Rusu, M. ; Lehmann, S. ; Schedel-Niedrig, Th. ; Lauermann, I. ; Lux-Steiner, M.C.

**The chemical and electronic surface and interface structure of CuGaSe<sub>2</sub> thin-film solar cell absorbers**

Applied Physics Letters

93 (2008) 232104/1 - 3

Belaidi, A. ; Dittrich, Th. ; Kieven, D. ; Tornow, J. ; Schwarzburg, K. ; Lux-Steiner, M.

**Influence of the local absorber layer thickness on the performance of ZnO nanorod solar cells**

Physica Status Solisi (RRL)

2 (2008) 172 - 174

Dittrich, Th. ; Zabel, P. ; Lenzmann, F. ; Morales, G. ; Otero, L.

**The TiO<sub>2</sub>/Ru(dcbpyH<sub>2</sub>)<sub>2</sub>(NCS)<sub>2</sub>/Au Schottky junction**

Thin Solid Films

516 (2008) 7234 - 7236

Dor, S. ; Dittrich, Th. ; Ofir, A. ; Grinis, L. ; Zaban, A.

**Postpressing dependence of the effective electron diffusion coefficient in electrophoretically prepared nanoporous ZnO and TiO<sub>2</sub> films**

Journal of Materials Research

23 (2008) 975 - 980

Gavrilov, S. ; Dittrich, Th. ; Lim, B. ; Belaidi, A. ; Lux-Steiner, M.

**Ultra-thin charge selective systems based on MeS<sub>x</sub>H<sub>y</sub> (Me = In, Cu, Pb)**

Thin Solid Films

516 (2008) 7051 - 7054

Huebener, K; Schoenfeld, RS; Kniepert, J; Oelmueller, C; Harneit, W

**ODMR of NV centers in nano-diamonds covered with N@C-60**

Physica Status Solidi B-Basic Solid State Physics

245 (2008) 2013 - 2017

Johnev, B; Fostirooulos, K

**Zinc-phthalocyaninetetraphosphonic acid as a novel transparent-conducting-oxide passivation for organic photovoltaic devices**

Solar Energy Materials and Solar Cells

92 (2008) 393 - 396

Kieven, D. ; Dittrich, T. ; Belaidi, A. ; Tornow, J. ; Schwarzburg, K. ; Allsop, N. ; Lux-Steiner, M.

**Effect of internal surface area on the performance of ZnO/In<sub>2</sub>S<sub>3</sub>/CuSCN solar cells with extremely thin absorber**

Applied Physics Letters

92 (2008) 153107/1 - 3

Mora-Seró, I. ; Dittrich, Th. ; Susha, A.S. ; Rogach, A.L. ; Bisquert, J.

**Large improvement of electron extraction from CdSe quantum dots into a TiO<sub>2</sub> thin layer by N3 dye coabsorption**

Thin Solid Films

516 (2008) 6994 - 6998

Musembi, R.J. ; Rusu, M. ; Mwabora, J.M. ; Aduda, B.O. ; Fostiroopoulos, K. ; Lux-Steiner, M.Ch.

**Intensity and temperature dependent characterization of eta solar cell**

Physica Status Solidi A

205 (7) (2008) 1713 - 1718

Mwabora, J.M. ; Ellmer, K. ; Belaidi, A. ; Rappich, J. ; Bohne, W. ; Röhrich, J. ; Dittrich, Th.

**Reactively sputtered TiO<sub>2</sub> layers on SnO<sub>2</sub>:F substrates: A Raman and surface photovoltage study**

Thin Solid Films

516 (2008) 3841 - 3846

Ofir, A. ; Dor, S. ; Grinis, L. ; Zaban, A. ; Dittrich, Th. ; Bisquert, J.

**Porosity dependence of electron percolation in nanoporous TiO<sub>2</sub> layers**

Journal of Chemical Physics

128 (2008) 064703/1 - 9

Rusu, M. ; Gasiorowski, J. ; Wiesner, S. ; Meyer, N. ; Heuken, M. ; Fostiroopoulos, K. ; Lux-Steiner, M.Ch.

**Fine tailored interpenetrating donor-acceptor morphology by OVPD for organic solar cells**

Thin Solid Films

516 (2008) 7160 - 7166

Rusu, M. ; Wiesner, S. ; Mete, T. ; Blei, H. ; Meyer, N. ; Heuken, M. ; Lux-Steiner, M.Ch.; Fostiropoulos, K.  
**Organic donor, acceptor and buffer layers of small molecules prepared by OVPD technique for photovoltaics**

Renewable Energy  
33 (2008) 254 - 258

Rusu, M. ; Wiesner, S.; Keiper, D. ; Gasiorowski, J. ; Meyer, N. ; Heuken, M. ; Fostiropoulos, K. ; Lux-Steiner, M.Ch.

**Organic photovoltaic devices with fine-controlled donor and acceptor composition profiles**

In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot, D. [u.a.]  
WIP Renewable Energies, München, 2008, 679 - 681

Zidon, Y. ; Shapira, Y. ; Shaim, H. ; Dittrich, Th.

**Interactions at tetraphenyl-porphyrin / InP interfaces observed by surface photovoltage spectroscopy**

Applied Surface Science  
254 (2008) 3255 - 3261

## SE2.Contacts

Merdes, S; Kinoshita, A; Hadjoub, Z; Sugiyama, M; Nakanishi, H; Ando, S

**Effect of Deposition Conditions on Photoluminescence of CuInSe<sub>2</sub> Thin Films Prepared by Spin Coating Technique**

Japanese Journal of Applied Physics  
47 (2008) 8284 - 8286

Powalla, M. ; Breyer, W. ; Lux-Steiner, M. ; Rech, B.

**Von der Grundlagenforschung zur Produktion - Entwicklungspotenziale der Dünnschichtphotovoltaik an Beispielen aus der Si- und CIS-Technologie**

In: Produktionstechnologien für die Solarenergie. Jahrestagung des Forschungsverbunds Sonnenenergie...  
26. - 27. September 2007, Leibniz Universität Hannover, eds. Stadermann, G.  
Forschungsverbund Sonnenenergie, Berlin, 2008, 89 - 95

Todorov, T. ; Carda, J. ; Escribano, P. ; Grimm, A. ; Klaer, J. ; Klenk, R.

**Electro deposited In<sub>2</sub>S<sub>3</sub> buffer layers for CuInS<sub>2</sub> solar cells**

Solar Energy Materials and Solar Cells  
92 (2008) 1274 - 1278

## SE2.Integration

Gordijn, A. ; Klenk, R. ; Köntges, M. ; Wieder, S. ; Stannowski, B.

**Prozessentwicklung für die industrielle Pilotierung von Dünnschichttechnologien**

In: Produktionstechnologien für die Solarenergie. Jahrestagung des Forschungsverbunds Sonnenenergie...  
26. - 27. September 2007, Leibniz Universität Hannover, eds. Stadermann, G.  
Forschungsverbund Sonnenenergie, Berlin, 2008, 96 - 100

## SE2.Others

Camus, C. ; Rudigier, E. ; Abou-Ras, D. ; Allsop, N.A. ; Unold, T. ; Tomm, Y. ; Schorr, S. ; Gledhill, S.E. ; Köhler, T. ; Klaer, J. ; Lux-Steiner, M.C. ; Fischer, Ch.-H.

**Phonon confinement and strain in CuInS<sub>2</sub>**

Applied Physics Letters  
92 (2008) 101922/1 - 3

Chen, J. ; Aé, L. ; Aichele, Ch. ; Lux-Steiner, M.Ch.

**High internal quantum efficiency ZnO nanorods prepared at low temperature**

Applied Physics Letters  
92 (2008) 161906/1 - 3

Fink, D. ; Kiv, A. ; Golovanov, V. ; Chen, J. ; Chandra, A. ; Ivanovskaya, M. ; Khirunenko, L. ; Fuks, D.

**Tin dioxide on semiconductor as material for new electronics**

Journal of Materials Science: Materials in Electronics

19 (2008) 1222 - 1227

Lux-Steiner, M.Ch. ; Hannappel, Th. [Hrsg.]

**Nanotechnologie für eine nachhaltige Energieversorgung : Symposium 29. - 30.11.2007 in Berlin**

FVS, Berlin, 2008

---

## SE2.Semico

Grossberg, M; Krustok, J; Bodnar, I; Siebentritt, S; Albert, J

**Photoluminescence and Raman spectra of the ordered vacancy compound CuGa<sub>5</sub>Se<sub>8</sub>**

Physica B-Condensed Matter

403 (2008) 184 - 189

Kaigawa, R. ; Wada, T. ; Klenk, R.

**The microstructure of Cu(In,Ga)S<sub>2</sub> solar cell absorber films prepared using three-stage and two-stage evaporation**

Thin Solid Films

516 (2008) 7046 - 7050

Levchenko, S; Syrbu, NN; Tezlevan, VE; Arushanov, E; Merino, JM; Leon, M

**Exciton spectra and energy band structure of CuGaSe<sub>2</sub> single crystals**

Journal of Physics D-Applied Physics

41 (2008) 055403

Merdes, S. ; Kaigawa, R. ; Klaer, J. ; Klenk, R. ; Mainz, R. ; Meeder, A. ; Papathanasiou, N. ; Abou-Ras, D. ; Schmidt, S.

**Increased open circuit voltage in Cu(In,Ga)S<sub>2</sub>based solar cells prepared by rapid thermal processing of metal precursors**

In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot, D. [u.a.]

WIP Renewable Energies, München, 2008, 2588 - 2591

Siebentritt, S; Rissom, T

**Metastable behavior of donors in CuGaSe<sub>2</sub> under illumination**

Applied Physics Letters

92 (2008) 062107

Xu, HY; Papadimitriou, D; Zoumpoulakis, L; Simitzis, J; Lux-Steiner, MC

**Compositional and temperature dependence of the energy band gap of CuxInySe<sub>2</sub> epitaxial layers**

Journal of Physics D-Applied Physics

41 (2008) 165102

---

## SE3.Baseline

Kaufmann, C.A. ; Caballero, R. ; Unold, T. ; Mönig H. ; Hesse, R. ; Klenk, R. ; Schock, H.-W.

**Low temperature growth of Cu(In,Ga)Se<sub>2</sub>**

In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot, D. [u.a.]

WIP Renewable Energies, München, 2008, 2170 - 2174

**SE2 - Heterogeneous Material Systems****Addenda to 2007****SE2.Analytics**

Fischer, Ch.-H.

**Analysis of dyestuffs from the textiles of a Post-Meroitic Burial**

2007, 125 - 128

**SE3 - Technology****SE2.Analytics**

Mönig, H. ; Lauermann, I. ; Grimm, A. ; Camus, C. ; Kaufmann, C.A. ; Pistor, P. ; Jung, Ch. ; Kropp, T. ; Lux-Steiner, M.C. ; Fischer, Ch.-H.

**Controlled variation of the information depth by angle dependent soft X-ray emission spectroscopy:**

**A study on polycrystalline Cu(In,Ga)Se<sub>2</sub>**

Applied Surface Science

255 (2008) 2474 - 2477

**SE2.Contacts**

Todorov, T. ; Carda, J. ; Escribano, P. ; Grimm, A. ; Klaer, J. ; Klenk, R.

**Electro deposited In<sub>2</sub>S<sub>3</sub> buffer layers for CuInS<sub>2</sub> solar cells**

Solar Energy Materials and Solar Cells

92 (2008) 1274 - 1278

**SE3.Baseline**

Abou-Ras, D. ; Caballero, R. ; Kaufmann, C.A. ; Nichterwitz, M. ; Sakurai, K. ; Schorr, S. ; Unold, T. ; Schock, H.-W.

**Impact of the Ga concentration on the microstructure of CuIn<sub>1-x</sub>Ga<sub>x</sub>Se<sub>2</sub>**

Physica Status Solidi (RRL)

2 (2008) 135 - 137

Asenjo, B. ; Chaparro, A.M. ; Gutiérrez, M.T. ; Herrero, J. ; Klaer, J.

**Study of CuInS/ZnS/ZnO solar cells, with chemically deposited ZnS buffer layers from acidic solutions**

Solar Energy Materials and Solar Cells

92 (2008) 302 - 306

Kaufmann, C.A. ; Caballero, R. ; Unold, T. ; Mönig H. ; Hesse, R. ; Klenk, R. ; Schock, H.-W.

**Low temperature growth of Cu(In,Ga)Se<sub>2</sub>**

In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot, D. [u.a.]

WIP Renewable Energies, München, 2008, 2170 - 2174

Scheer, R.

**Diode currents in the limit of interface recombination and their diagnosis**

In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot, D. [u.a.]

WIP Renewable Energies, München, 2008

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### SE3.Control

Abou-Ras, D. ; Gibmeier, J. ; Nolze, G. ; Gholinia, A. ; Konijnenberg, P.

**On the capability of revealing the pseudosymmetry of the chalcopyrite-type crystal structure**

Crystal Research and Technology

43 (2008) 234 - 239

Abou-Ras, D. ; Jahn, U. ; Bundesmann, J. ; Caballero, R. ; Kaufmann, C.A. ; Klaer, J. ; Nichterwitz, M. ; Unold, T. ; Schock, H.-W.

**Scanning electron microscopy techniques for cross-sectional analyses of thin-film solar cells**

In: EMC 2008 : 14th European Microscopy Congress, 1 - 5 September 2008, Aachen, Germany. Vol. 1: Instrumentation and methods, eds. Luysberg, M. [u.a.]

Springer, Berlin, 2008, 523 - 524

Abou-Ras, D. ; Kaufmann, C.A. ; Eicke, A. ; Döbeli, M. ; Gade, B. ; Nunney, T.

**Comparison of elemental distribution profiles across Cu(In,Ga)Se<sub>2</sub> solar-cell absorbers acquired by various techniques**

Microscopy and Microanalysis

14 [Suppl. 2] (2008) 1134 - 1135

Abou-Ras, D. ; Kaufmann, C.A. ; Schöpke, A. ; Eicke, A. ; Döbeli, M. ; Gade, B. ; Nunney, T.

**Elemental distribution profiles across Cu(In,Ga)Se<sub>2</sub> solar-cell absorbers acquired by various techniques**

In: EMC 2008 : 14th European Microscopy Congress, 1 - 5 September 2008, Aachen, Germany. Vol. 1: Instrumentation and methods, eds. Luysberg. M. [u.a.]

Springer, Berlin, 2008, 741

Hesse, R; Alvarez, HR; Mainz, R; Lauche, J; Herdin, P; Abou-Ras, D; Unold, T; Schock, HW

**IN-SITU MONITORING OF RAPID THERMAL PROCESSES (RTP) OF CU(IN,GA)(S,SE)(2) BY OPTICAL METHODS**

In: Photovoltaic Cell and Module Technologies II

2008, 4505

Rodriguez-Alvarez, H; Kotschau, IM; Schock, HW

**Pressure-dependent real-time investigations on the rapid thermal sulfurization of Cu-In thin films**

Journal of Crystal Growth

310 (2008) 3638 - 3644

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### SE3.Others

Graaf, H; Unold, T; Mattheus, C; Schlettwein, D

**Self-organization of crystalline domains in originally amorphous perylene diimide films**

Journal of Physics D-Applied Physics

41 (2008) 105112/1 - 6

Marsen, B; Cole, B; Miller, EL

**Photoelectrolysis of water using thin copper gallium diselenide electrodes**

Solar Energy Materials and Solar Cells

92 (2008) 1054 - 1058

Schorr, S. ; Sheptyakov, D.

**Low-temperature thermal expansion in sphalerite-type and chalcopyrite-type multinary semiconductors**

Journal of Physics: Condensed Matter

20 (2008) 104245/1 - 5

**SE3.advanced**

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Zalewski, W; Bacewicz, R; Antonowicz, J; Schorr, S; Streeck, C; Korzun, B

**Local structure of Mn dopants in CuAlS<sub>2</sub> and CuGaS<sub>2</sub>**

Physica Status Solidi A-Applications and Materials Science

205 (2008) 2428 - 2436

**SE5.Energetics**

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Neumann, B. ; Bierau, F. ; Johnson, B. ; Kaufmann, C.A. ; Ellmer, K. ; Tributsch, H.

**Niobium-doped TiO<sub>2</sub> films as window layer for chalcopyrite solar cells**

Physica Status Solidi B

245 (2008) 1849 - 1857

Tomm, Y. ; Schorr, S. ; Flechter, S.

**Crystal growth of argyrodite-type phases Cu<sub>8-x</sub>GeS<sub>6-x</sub>I<sub>x</sub> and Cu<sub>8-x</sub>GeSe<sub>6-x</sub>I<sub>x</sub> (0 <= x <= 0.8)**

Journal of Crystal Growth

310 (2008) 2215 - 2221

**SE3 - Technology****Addenda to 2007****SE3.Baseline**

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Kötschau, I.M. ; Rodriguez-Alvarez, H. ; Streeck, C. ; Weber, A. ; Klaus, M. ; Denks, I.A. ; Gibmeier, J. Genzel, Ch. ; Schock, H.-W.

**Pressure dependent rapid thermal processing of CuInS<sub>2</sub> thin films investigated by in-situ energy dispersive X-ray diffraction**

In: Thin-film compound semiconductor photovoltaics 2007 : symposium held April 9 - 13, 2007, San Francisco, California, U.S.A., eds. Gessert, T.

Materials Research Soc., Warrendale, Pa., 2007, 503 - 508

**SE4 - Dynamics of Interfacial Reactions****SE2.Analytics**

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Dittrich, T. ; Kieven, D. ; Rusu, M. ; Belaidi, A. ; Tornow, J. ; Schwarzburg, K. ; Lux-Steiner, M.

**Current-voltage characteristics and transport mechanism of solar cells based on ZnO-nanorods/In<sub>2</sub>S<sub>3</sub>/CuSCN**

Applied Physics Letters

93 (2008) 053113/1 - 3

**SE2.Concepts**

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Kieven, D. ; Dittrich, T. ; Belaidi, A. ; Tornow, J. ; Schwarzburg, K. ; Allsop, N. ; Lux-Steiner, M.

**Effect of internal surface area on the performance of ZnO/In<sub>2</sub>S<sub>3</sub>/CuSCN solar cells with extremely thin absorber**

Applied Physics Letters

92 (2008) 153107/1 - 3

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## SE4.Cells

Döschner, H. ; Hannappel, T. ; Kunert, B. ; Beyer, A. ; Volz, K. ; Stolz, W.

### In situ verification of single-domain III-V on Si(100) growth via metal-organic vapor phase epitaxy

Applied Physics Letters

93 (2008) 172110/1 - 3

Sagol, B.E. ; Seidel, U. ; Szabo, N. ; Höhn, C. ; Döschner, H. ; Schwarzburg, K. ; Hannappel, T. ; Bauhuis, G.J. ; Mulder, P.

### Performance of InGaAsP/InGaAs tandem solar cells under GaAs

In: Twenty third European Photovoltaic Solar Energy Conference : proceedings of the international conference held in Valencia, Spain, 1 - 5 September 2008, eds. Lincot, D. [u.a.]

WIP Renewable Energies, München, 2008, 816 - 819

Seidel, U. ; Hannappel, T.

### MOVPE preparation of InGaAs(100) surface reconstructions employing transient in-situ RDS

Journal of Crystal Growth

310 (2008) 2334 - 2338

Seidel, U. ; Sagol, B.E. ; Pettenkofer, C. ; Hannappel, T.

### Electronic surface states on the MOVPE-prepared InGa-terminated InGaAs(100) (4 x 2)/c(8 x 2) surface

Applied Surface Science

255 (2008) 722 - 724

Seidel, U. ; Sagol, B.E. ; Szabo, N. ; Schwarzburg, K. ; Hannappel, T.

### InGaAs/GaAsSb-interface studies in a tunnel junction of a low band gap tandem solar cell

Thin Solid Films

516 (2008) 6723 - 6728

Szabo, N. ; Sagol, B.E. ; Seidel, U. ; Schwarzburg, K. ; Hannappel, T.

### InGaAsP/InGaAs tandem cells for a solar cell configuration with more than three junctions

Physica Status Solidi RRL

2 (2008) 254 - 256

Tornow, J. ; Ellmer, K. ; Szarko, J. ; Schwarzburg, K.

### Voltage bias dependency of the space charge capacitance of wet chemically grown ZnO nanorods employed in a dye sensitized photovoltaic cell

Thin Solid Films

516 (2008) 7139 - 7143

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## SE4.Dynamics

Eichberger, E.

### Forschung für Solarzellen der nächsten Generation

Science Allemagne. Das Informationsblatt der Abteilung für Wissenschaft und Technologie der französischen Botschaft in der Bundesrepublik Deutschland

Okt. (2008) 14 - 16

Szarko, J. ; Socaciu-Siebert, L. ; Neubauer, A. ; Hannappel, T. ; Eichberger, R.

### Electron relaxation dynamics at the In-rich (100) surface of InP

In: Ultrafast phenomena in semiconductors and nanostructure materials XII : 20 - 23 January 2008, San Jose, California, USA, eds. Jin-Joo Song [u.a.]

SPIE, Bellingham, Wash., 2008, 68921M/1 - 10

Szarko, J.M. ; Neubauer, A. ; Bartelt, A. ; Socaciu-Siebert, L. ; Birkner, F. ; Schwarzbburg, K. ; Hannappel, T. ; Eichberger, R.

**The ultrafast temporal and spectral characterization of electron injection from perylene derivatives into ZnO and TiO<sub>2</sub> colloidal films**

Journal of Physical Chemistry C  
112 (2008) 10542 - 10552

## SE4.Others

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Chemseddine, A; Bloeck, U

**How isopolyanions self-assemble and condense into a 2D tungsten oxide crystal: HRTEM imaging of atomic arrangement in an intermediate new hexagonal phase**

Journal of Solid State Chemistry  
181 (2008) 2731 - 2736

Ershov, B.G. ; Janata, E. ; Alam, M.S. ; Gordeev, A.V.

**A pulse radiolysis study of the reactions of the hydrated electron and hydroxyl radical with the oxalate ion in neutral aqueous solution**

High Energy Chemistry  
42 (2008) 1 - 6

Janata, E; Budnick, J; Wittmaack, HJ; Porsinger, J

**Instrumentation of kinetic spectroscopy-22 Circuitry for driving the injector of an electron accelerator**

Radiation Physics and Chemistry  
77 (2008) 757 - 760

Pazos-Perez, N; Baranov, D; Irsen, S; Hilgendorff, M; Liz-Marzan, LA; Giersig, M

**Synthesis of flexible, ultrathin gold nanowires in organic media**

LANGMUIR  
24 (2008) 9855 - 9860

## SE5 - Solar Energy

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### ISL.User

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Neitzert, H.-C. ; Ferrara, M. ; Kunst, M. ; Denker, A. ; Kertész, Z. ; Limata, B. ; Gialanella, L. ; Romano, M.

**Electroluminescence efficiency degradation of crystalline silicon solar cells after irradiation with protons in the energy range between 0.8 MeV and 65 MeV**

Physica Status Solidi B  
245 (2008) 1877 - 1883

## SE1.Cells

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Ellmer, K. ; Klein, A. ; Rech, B. [Eds.]

**Transparent Conductive Zinc Oxide : Basics and Applications in Thin Film Solar Cells**

(Springer Series in Materials Science ; 104)  
Springer, Berlin, 2008

## SE2.Concepts

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Belaïdi, A. ; Dittrich, Th. ; Kieven, D. ; Tornow, J. ; Schwarzbburg, K. ; Lux-Steiner, M.

**Influence of the local absorber layer thickness on the performance of ZnO nanorod solar cells**

Physica Status Solisi (RRL)  
2 (2008) 172 - 174

Mwabora, J.M. ; Ellmer, K. ; Belaidi, A. ; Rappich, J. ; Bohne, W. ; Röhrich, J. ; Dittrich, Th.  
**Reactively sputtered TiO<sub>2</sub> layers on SnO<sub>2</sub>:F substrates: A Raman and surface photovoltage study**  
Thin Solid Films  
516 (2008) 3841 - 3846

## SE5.Energetics

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Barkschat, A. ; Moehl, T. ; Macht, B. ; Tributsch, H.  
**The function of TiO<sub>2</sub> with respect to sensitizer stability in nano-crystalline dye solar cells**  
International Journal of Photoenergy  
(2008) 814951/1 - 13

Brunkens, S. ; Mientus, R. ; Seeger, S. ; Ellmer, K.  
**The mechanism of nickel sulfide induced rapid crystallization of highly textured tungsten disulfide (WS<sub>2</sub>) thin films: An in situ real-time diffraction study**  
Journal of Applied Physics  
103 (2008) 063501/1 - 6

Casteleiro, C; Schwarz, R; Mardolcar, U; Macarico, A; Martins, J; Vieira, M; Wuensch, F; Kunst, M; Morgado, E; Stallinga, P; Gomes, HL  
**Spatially-resolved photocapacitance measurements to study defects in a-Si : H based p-i-n particle detectors**  
Thin Solid Films  
516 (2008) 5118 - 5121

Ellmer, K.  
**Preparation routes based on magnetron sputtering for tungsten disulfide (WS<sub>2</sub>) films for thin-film solar cells**  
Physica Status Solidi B  
245 (2008) 1745 - 1760

Ellmer, K.  
**Magnetron discharges for thin film deposition**  
In: Low Temperature Plasmas : Fundamentals, Technologies and Techniques. Vol. 2, eds. Hippler, R. [u.a.] Wiley-VCH, Weinheim, 2008, 675 - 714

Ellmer, K. ; Mientus, R.  
**Carrier transport in polycrystalline ITO and ZnO:Al II: The Influence of grain barriers and boundaries**  
Thin Solid Films  
516 (2008) 5829 - 5835

Ellmer, K.. ; Mientus, R.  
**Carrier transport in polycrystalline transparent conductive oxides: A comparative study of zinc oxide and indium oxide**  
Thin Solid Films  
516 (2008) 4620 - 4627

Fiechter, S. ; Tomm, Y. ; Kanis, M. ; Scheer, R. ; Kautek, W.  
**On the homogeneity region, growth modes and optoelectronic properties of chalcopyrite-type CuInS<sub>2</sub>**  
Physica Status Solidi B  
245 (2008) 1761 - 1771

Herrmann, I.  
**Innovative Elektrokatalyse: Platinfreie Kathodenkatalysatoren für Brennstoffzellen**  
VDM Verl. Müller, Saarbrücken, 2008

Herrmann, I. ; Koslowski, U.I. ; Radnik, J. ; Fiechter, S. ; Bogdanoff, P.  
**Preparation and structural analysis of heat treated Co-and Fe-porphyrines as cathode catalysts for the oxygen reduction reaction**  
ECS Transactions  
13 (17) (2008) 143 - 160

Klein, D. ; Wuensch, F. ; Kunst, M.  
**The determination of charge-carrier lifetime in silicon**  
Physica Status Solidi B  
245 (2008) 1865 - 1876

Koslowski, U.I. ; Abs-Wurmbach, I. ; Fiechter, S. ; Bogdanoff, P.  
**Nature of the catalytic centers of porphyrin-based electrocatalysts for the ORR: A correlation of kinetic current density with the site density of Fe-N<sub>4</sub> centers**  
Journal of Physical Chemistry C  
112 (2008) 15356 - 15366

Koslowski, U.I. ; Herrmann, I. ; Bogdanoff, P. ; Barkschat, C. ; Fiechter, S. ; Iwata, N. ; Takahashi, H. ; Nishikori, H.  
**Evaluation and analysis of PEM-FC performance using non-platinum cathode catalysts based on pyrolysed Fe- and Co-porphyrins - influence of a secondary heat-treatment**  
ECS Transactions  
13 (17) (2008) 125 - 141

Leem, H.-J. ; Dorbandt, I. ; Rojas-Chapana, J. ; Fiechter, S. ; Tributsch, H.  
**Bio-analogue Amino Acid-Based Proton-Conduction Wires for Fuel Cell Membranes**  
Journal of Physical Chemistry C  
112 (2008) 2756 - 2763

Lewerenz, H.-J.  
**Metal electrodeposition onto (photo)electrochemically prepared nanostructured silicon surfaces: solar applications**  
Transactions of the Institute of Metal Finishing  
86 (2008) 19 - 33

Matsumoto, Y. ; Ortega, M. ; Wünsch, F. ; Yu, Z.  
**Cat-CVD deposited inverted μc-Si:H/c-Si heterojunction solar cell approach**  
In: 5th International Conference on Electrical Engineering, Computing Science and Automatic Control (CCE 2008)  
IEEE, , 2008, 455 - 459

Neumann, B. ; Bierau, F. ; Johnson, B. ; Kaufmann, C.A. ; Ellmer, K. ; Tributsch, H.  
**Niobium-doped TiO<sub>2</sub> films as window layer for chalcopyrite solar cells**  
Physica Status Solidi B  
245 (2008) 1849 - 1857

Szabo, N; Totzke, C; Tributsch, H  
**Total internal reflectance-infrared structural studies on tensile water formation during evaporation from nanopores**  
Journal of Physical Chemistry C  
112 (2008) 6313 - 6318

Tomm, Y. ; Schorr, S. ; Fiechter, S.  
**Crystal growth of argyrodite-type phases Cu<sub>8-x</sub>GeS<sub>6-x</sub>I<sub>x</sub> and Cu<sub>8-x</sub>GeSe<sub>6-x</sub>I<sub>x</sub> (0 <= x <= 0.8)**  
Journal of Crystal Growth  
310 (2008) 2215 - 2221

Tribusch, H. ; Fiechter, S.

**The material strategy of fire-resistant tree barks**

In: High performance structures and materials IV : proceedings of the Fourth International Conference on ..., eds. De Wilde, W. P. [u.a.]

WIT Press, Southampton, 2008, 43 - 52

Tributsch, H.

**Photovoltaic hydrogen generation**

International Journal of Hydrogen Energy

33 (2008) 5911 - 5930

Tributsch, H.

**Kraftwerk Natur: Energiestrategien für die zukünftige Industrie-Zivilisation**

In: Bionik : Vorbild Natur in Leben und Technik, eds. Wienecke-Janz, D. [u.a.]

Wissen Media Verl. GmbH, Gütersloh, 2008, 182 - 189

Tributsch, H. ; Koslowski, U.I. ; Dorbandt, I.

**Experimental and theoretical modeling of Fe-, Co-, Cu-, Mn-based electrocatalysts for oxygen reduction**

Electrochimica Acta

53 (2008) 2198 - 2209

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## SE5.Interfaces

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Grzanna, J. ; Notz, T. ; Lewerenz, H.J.

**Model for current oscillations at the Si/electrolyte contact: Extension to spatial resolution**

ECS Transactions

16 (3) (2008) 173 - 180

Lewerenz, H.J.

**Enzyme-semiconductor Interactions: Routes from fundamental aspects to photoactive devices**

Physica Status Solidi B

245 (2008) 1884 - 1898

Lewerenz, H.J. ; Aggour, M. ; Stempel, T. ; Lublow, M. ; Grzanna, J. ; Skorupska, K.

**Photoactive nanostructure device by electrochemical processing of silicon**

Journal of Electroanalytical Chemistry

619-620 (2008) 137 - 142

Lublow, M. ; Lewerenz, H.J.

**Nanotopography development on silicon electrodes by analysis of Brewster angle real-time spectroscopy**

ECS Transactions

6 (19) (2008) 1 - 10

Lublow, M. ; Lewerenz, H.J.

**Real-time monitoring of SiO<sub>2</sub>/Si(111) interlayer etching by Brewster-angle reflectometry**

Surface Science

602 (2008) 1677 - 1687

Lublow, M. ; Stempel, T. ; Skorupska, K. ; Muñoz, A.G. ; Kanis, M. ; Lewerenz, H.J.

**Morphological and chemical optimization of ex-situ NH<sub>4</sub>F (40%) conditioned Si(111)-(1x1):H**

Applied Physics Letters

93 (2008) 062112/1 - 3

Munoz, A. ; Lewerenz, H.J.

**Platinum Deposition onto Si Single Crystal Surfaces I. Chemical, Electronic, and Morphological Surface Processes under Depletion Conditions**

Journal of The Electrochemical Society

155 (2008) D527 - D533

Munoz, AG; Schiefer, C; Kisker, E

**Anisotropic permeability in ultrasoft electroplated NiFeMo/Cu microwires: The Procopiu effect**

Journal of Applied Physics

103 (2008) 073904

Stempel, T. ; Aggour, M. ; Skorupska, K. ; Munoz, A. ; Lewerenz, H.-J.

**Efficient photoelectrochemical nanoemitter solar cell**

Electrochemistry Communications

10 (2008) 1184 - 1186

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### SF3.BESSY

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Haas, S. ; Hoell, A. ; Zehl, G. ; Dorbandt, I. ; Bogdanoff, P. ; Fiechter, S.

**Structural investigation of carbon supported Ru-Se based catalysts using anomalous small angle X-ray scattering**

ECS Transactions

6 (2008) 127 - 138

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### SE6 - Electronic Structure of Semiconductor Interfaces

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### SE2.Analytics

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Sadewasser, S. ; Bremsteller, W. ; Plake, T. ; Kaufmann, C.A. ; Pettenkofer, Ch.

**Microscopic investigation of the CdS buffer layer growth on Cu(In,Ga)Se<sub>2</sub> absorbers**

Journal of Vacuum Science and Technology B

26 (2008) 901 - 903

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### SE6.BESSY

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Andres, S. ; Pettenkofer, C. ; Speck, F. ; Seyller, T.

**Morphology and electronic properties of metal organic molecular beam epitaxy grown ZnO on hydrogen passivated 6H-SiC(0001)**

Journal of Applied Physics

103 (2008) 103720/1 - 6

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### SE6.Interfaces

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Mroczynski, R; Kwietniewski, N; Cwil, M; Hoffmann, P; Beck, RB; Jakubowski, A

**Improvement of electro-physical properties of ultra-thin PECVD silicon oxynitride layers by high-temperature annealing**

VACUUM

82 (2008) 1013 - 1019

# **Conference Contributions**

## SF - Structural Research

### SF - BENSC

#### BENSC.User

Poster

*Bordallo, H. N.; Boldyreva, E. V.; Buchsteiner, A.; Koza, M. M.; Landsgesell, S.*

**Structure-Property Relationships in the Crystals of the Smallest Amino Acid: An Incoherent Inelastic Neutron Scattering Study of the Glycine Polymorphs**

50 Years of Neutron Science in Berlin

Berlin, Germany 14. Jul - 15. Jul 2008

Invited Talk

*Dalle-Ferrier C.; Eibl S.; Pappas C.; Alba-Simionescu Chr.*

**Temperature dependence of three point correlation functions of viscous liquids: case of glycerol**

7th Liquid Matter Conference

Lund, Schweden 27. Jun - 01. Jul 2008

Oral

*Grzanna, J.; Lewerenz, H. J.*

**Model for Current Oscillations at the Si/Electrolyte Contact: Extension to Spatial Resolution**

Prime Pacific Rim Meeting on Electrochemical and Solid-State Science

Honolulu 12. Oct - 17. Oct 2008

Poster

*Heloisa Bordallo, Elena Boldyreva, Alexandra Buchsteiner, Michael Marek Koza, Sven Landsgesell*

**Structure-Property Relationships in the Crystals of the Smallest Amino Acid: An Inelastic Neutron Scattering Study of the Glycine Polymorphs as a Function of Temperature and Pressure**

Deutsche Neutronenstreutagung 2008

Garching, Germany 15. Sep - 17. Sep 2008

Invited Talk

*Heloisa N. Bordallo, E. V. Boldyreva, B. Kolesov, S. Landsgesell, A. Buchsteiner, F. Juranyi, M. M. Koza, T. Straessle*

**Temperature and pressure effects on the reorientational dynamics of amino acids, a neutron study**

XXI Congress and General Assembly of the

Osaka, Japan 23. Aug - 31. Aug 2008

Invited Talk

*Steiner, M.*

**Perspectives of extreme sample environment in neutron scattering and consequences for instrumentation**

International Symposium on Neutron Scattering (ISNS2008)

Mumbai, India 15. Jan - 18. Jan 2008

#### SF1.BENSC

Oral

*Boin, M.; Kardjilov, N.; Schneider, R.; Edwards, L.*

**Strain and Texture Analysis using Bragg Edge transmission**

NEUWAVE (workshop on NEUtron WAVElength dependent IMAGING)

Garching/München, Deutschland 21. Apr - 24. Apr 2008

Poster

*Chmielus, M.; Carpenter, D.; Geleynse, A.; Hagler, M.; Schneider, R.; Müllner, P.*

**Numerical simulation of twin-twin interaction in magnetic shape-memory alloys**

Materials Research Society, Spring 2008 Meeting, Symposium Z

San Francisco 24. Mar - 28. Mar 2008

Invited Talk

*Davies, C and Wimpory, R.*

**Influence of Crack Growth and Specimen Sectioning on Residual Stresses**

VAMAS TWA31 Annual Meeting

Imperial College London 19. May - 19. May 2008

Invited Talk

*Fery A.; Döñch, I.; Möhwald, H.; Laschewsky, A.; Ott, P.; Köhler, R.; Krastev, R.*

**Micromechanics of polyelectrolyte multilayer**

Kolloquium

Dresden 22. Apr - 23. Apr 2008

Poster

*Kamel, S., Wimpory, R.C., O'Dowd, N., Nikbin K.*

**Constraint effects on fracture under compressive and tensile residual stresses in fracture mechanics specimens**

Deutsche Neutronenstreutagung 2008

TUM, Garching 15. Sep - 17. Sep 2008

Poster

*Kiefer, K.; Klemke, B.*

**In-situ Sample Orientation for Neutron Scattering at Dilution Temperatures**

Deutsche Neutronenstreutagung 2008

München 14. Sep - 17. Sep 2008

Poster

*Kreuzer, M.; Kaltfen, T.; Steitz, R.; Dahint, R.*

**Lubrication in model joints - a study on shear dependence**

Deutsche Neutronenstreutagung 2008

TU München 14. Sep - 17. Sep 2008

Invited Talk

*Rolfs, K.*

**Co-Doping: Tuning Ni-Mn-Ga for Actuator Application?**

Seminar-Vortrag TU München

Munich, Germany 21. Oct - 21. Oct 2008

Oral

*Rolfs, K.; Mecklenburg, A.; Guldbakke, J.-M.; Chmielus, M.; Alliouane, N.; Brown, J.P.; Schneider, R.*

**Co-doping: Tuning Ni-Mn-Ga for Actuator Application?**

CIMTEC 2008

Acireale, Italy 08. Jun - 13. Jun 2008

Oral

*Rolfs, K.; Mecklenburg, A.; Guldbakke, J.-M.; Raatz, A.; Schneider, R.P.*

**Co-doped Ni-Mn-Ga - A new smart material for industry**

IUCr2008

Osaka, Japan 23. Aug - 30. Aug 2008

Invited Talk

*Rule, K.*

**How Frustrating: A look at recent neutron scattering data in the frustrated pyrochlores TbTiO and**

**TbSnO**

Invited talk at LLB, Saclay, France

LLB, Saclay, France 05. Jun - 06. Jun 2009

Invited Talk

*Rule, K.*

**What high magnetic fields and low temperatures have revealed to me?**

ANSTO, Sydney, Australia 18. Jun - 18. Jun 2008

Invited Talk

*Rule, K.*

**How Frustrating! A look at recent neutron scattering results from the frustrated pyrochlores Tb<sub>2</sub>Ti<sub>2</sub>O<sub>7</sub> and Tb<sub>2</sub>Sn<sub>2</sub>O<sub>7</sub>**

University of New South Wales, Sydney Au 17. Jun - 17. Jun 2008

Invited Talk

*Schneider, R.*

**"Neutrons and Photons in Service for Industry: 3D Structure Visualization and Characterization - Strategy to Establish the Reference for NDE and FE-Simulations -"**

Second US-China Workshop on Scientific and Industrial Applications Using Neutrons, Muons and Protons Dongguan, Guandong Province, China 07. Nov - 10. Nov 2008

Oral

*Schneider, R.; Chmielus, M.; Rolfs, K.; Mecklenburg, A.; Guldbakke, J.-M.; Raatz, A.;*

**Neutrons - A Unique and Essential Tool on the Way to the Commercial Use of Novel Smart Materials**

R. Schneider (Sp), M. Chmielus, K. Rolfs, Hahn-Meitner-Institute Berlin (Germany); A. Mecklenburg, J.-M. Guldbakk, Braunschweig University of Technology (Germany)

MSE Nürnberg 2008

Nürnberg 01. Sep - 04. Sep 2008

Invited Talk

*Schneider, R.; Wimpor, R.; Hofmann, M.; Ohms, C.*

**STRAINET: Standardization of Interfaces to Promote International Co-Operation in Neutron**

**Diffraction**

IAEA Expert Meeting

Wien, Österreich 10. Dec - 12. Dec 2008

Oral

*Strobl, M.*

**Linking neutron imaging and scattering: An overview of recent developments in neutron imaging**

Seminar

TU Delft, Holland 05. Mar - 05. Mar 2008

Oral

*Strobl, M., Hilger, A., Kardjilov, N., Manke, I.*

**Monochromatic neutrons and phase contrast from matter and magnetic fields**

neuwave meeting

TUM 21. Apr - 24. Apr 2008

Oral

*Strobl, M., Hilger, A., Kardjilov, N., Manke, I.*

**Nuclear and magnetic phase contrast imaging with neutrons**

ITMNR

Kobe, Japan 15. Sep - 19. Sep 2008

Oral

*Strobl, M., Kardjilov, N., Hilger, A. Manke,I. Treimer, W., Jericha, E., Badurek, G.*

**Imaging with polarised neutrons**

PNCMI 2008

Tokai, Japan 01. Sep - 05. Sep 2008

Oral

*Strobl, M., Steitz, R., Dahint, R., Grunze, M.*

**BioRef - a time-of-flight reflectometer at Hahn-Meitner Institute Berlin**

IUCr 2008

Osaka, Japan 24. Aug - 30. Aug 2008

**Poster**

*Teichert, A.; Steitz, R.; Fleischmann, C.; Temst, K.;*

**PNR reflectometry on Fe/CoO films**

Deutsche Neutronenstreutagung 2008

TU München 14. Sep - 17. Sep 2008

**Invited Talk**

*Wimpory, R.C and Hofmann, M.*

**Net Task group 1, 2 and 4**

13th NeT Steering Committee Meeting at INSA-Lyon

INSA, Lyon, France 09. Jun - 11. Jun 2008

**Poster**

*Wimpory, R.C, Poeste, T., Boin, M., Flemming, S. and Schneider, R.*

**E3: Versatile Strain Scanning and Stress Determination**

50 Years of Neutron Science in Berlin

Berlin 14. Jul - 15. Jul 2008

**Oral**

*Wimpory, R.C.*

**TG4 Stress Relieved Specimen measurements**

14th NeT Steering Committee Meeting and 5th NeT Enlargement & Integration Workshop, Petten,

JRC, Petten, The Netherlands 01. Dec - 03. Dec 2008

**Oral**

*Wimpory, R.C.*

**Using neutrons for non destructive testing at the surface**

14th NeT Steering Committee Meeting and 5th NeT Enlargement & Integration Workshop, Petten

JRC, Petten, The Netherlands 01. Dec - 03. Dec 2008

**Poster**

*Wimpory, R.C., Poeste, T., Boin, M., Flemming, S., Denks I., Genzel, C. and Schneider R.*

**Bridging the gap between synchrotrons and neutrons in non destructive testing at the surface**

Deutsche Neutronenstreutagung 2008

TUM Garching 15. Sep - 17. Sep 2008

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**SF2.BENSC****Oral**

*Buchsteiner, A.; Stüber, N.*

**Optimizations in neutron powder diffraction by using divergent beam geometries in angular dispersive techniques**

11th European Powder Diffraction Conference

Warschau 19. Sep - 22. Sep 2008

**Invited Talk**

*Hauß, T.*

**The application of neutron scattering techniques in membrane biophysics**

2nd European Conference on Metalloproteomics

Berlin / Germany 03. Dec - 04. Dec 2008

**Invited Talk**

*Hauß, T.; Pieper, J.; Buchsteiner, A.; Lechner, R.E.; Dencher, N.A.*

**Observation of transient modulations in protein dynamics during the photocycle of bacteriorhodopsin**

Biological Physics at Large Facilities

Grenoble / France 19. Oct - 23. Oct 2008

Oral

Hauß, T.; Pieper, J.; Buchsteiner, A.; Lechner, R.E.; Dencher, N.A.

**Real-time monitoring of modulations in the protein dynamics during the photocycle of bacteriorhodopsin by quasielastic neutron scattering**

13th International Conference on Retinal Proteins

Barcelona / Spain 15. Jun - 20. Jun 2008

Oral

Keiderling, U, Wiedenmann, A, Rupp, A, Klenke, J, Heil, W, Jullien, D, Petoukhov, A K, Lelievre-Berna, E, Andersen, K H

**Magic Box and Fast Decaying Cell - Two Methods of SANS Polarization Analysis with 3He at the V4 SANS Instrument of Helmholtz Center Berlin**

Polarised Neutrons In Condensed Matter Investigations PNCMI 2008

Tokai, Japan 01. Sep - 05. Sep 2008

Poster

Keiderling, U, Wiedenmann, A, Rupp, A, Klenke, J, Heil, W, Jullien, D, Petoukhov, A K, Lelievre-Berna, E, Andersen, K H

**Magic box and fast decaying cell - two methods of SANS polarization analysis with 3He at the V4 SANS instrument of Helmholtz Center Berlin**

Deutsche Neutronenstreutagung

München 15. Sep - 17. Sep 2008

Oral

Morris, D.J.P.; Roger, M.; Goff, J.; Tennant, D.A.; Gutmann, M.J.; Prabhakaran, D.; Hoffmann, J.-U.; Feyerherm, R.; Dudzik, E.;

**Sodium ordering and the control of electrons in Sodium Cobaltate**

British Crystallography Association annual conference

York University, York, U.K. 08. Apr - 10. Apr 2008

Oral

Morris, D.J.P.; Roger, M.; Tennant, D.A.; Gutmann, M.J.; Goff, J.P.; Prabhakaran, D.; Hoffmann, J.-U.; Feyerherm, R.; Dudzik, E.; Kiefer, K.

**Sodium Ordering Phase Transition in Sodium Cobaltate**

APS March Meeting

New Orleans, USA 10. Mar - 14. Mar 2008

Oral

Rupp, A.

**<sup>3</sup>He-NSF project at HMI**

Final NMI3 General Meeting

Ajaccio, France 25. Jun - 28. Jun 2008

Poster

Soltwisch, V.; Schierle, E.; Weschke, E.; Geck, J.; Hawthorn, D.; Wadati, H.; Wu, H.-H.; Dürr, H.A.; Wizent, N.; Büchner, B.; Ribeiro, P.; Sawatzky, G.A.; Fink, J.

**Doping dependence of charge order in La<sub>1.8-x</sub>Eu<sub>0.2</sub>Sr<sub>x</sub>CuO<sub>4</sub> studied by resonant soft X-Ray diffraction**

Bessy User Meeting

Berlin 04. Dec - 05. Dec 2008

Oral

Uestuenner, K.; Katter, M.; Blank, R.; Benedikt, D.; Bahrdt, J.; Gaupp, A.; Klemke, B.; Grüner, F.; Weingartner, R.

**Sintered (Pr,Nd)-Fe-B Permanent Magnets with (BH)<sub>max</sub> of 520 kJ/m<sup>3</sup> at 85 K for Cryogenic Applications**

20th international Workshop on Rare Earth Permanent Magnets and their Applications  
Crete, Greece 08. Sep - 10. Sep 2008

Oral

*Yokaichiya, F.; Nunes Bordallo, H.; Argyriou, D.N.; Krimmel, A.; Loild, A.; Tsurkan, V.*

**Incommensurate Magnetic Structure of ZnCr<sub>2</sub>Se<sub>4</sub> and ZnCr<sub>2</sub>S<sub>4</sub>**

2008 APS March Meeting

New Orleans, Louisiana, USA 10. Mar - 14. Mar 2008

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## SF3.BENSC

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Oral

*Hilger, A.; Kardjilov, N.; Manke, I.; Strobl, M.; Banhart, J.*

**Investigation of magnetic fields at the neutron radiography station CONRAD at HMI**

Workshop on NEUtron WAVElength dependend IMAGING (NEUWAVE IMAGING)

München, Germany 20. Apr - 24. Apr 2008

Poster

*Jericha, E.; Badurek, G.; Hilger, A.; Kardjilov, N.; Manke, I.; Strobl, M.*

**First experimental test of tensorial neutron tomography**

Deutsche Neutronenstreutagung

Garching, Germany 15. Sep - 17. Sep 2008

Oral

*Kardjilov, N.; Hilger, A.; Manke, I.; Strobl, M., Dawson, M.; Banhart, J.*

**New trends in neutron imaging**

The Sixth International Topical Meeting on Neutron Radiography

Kobe, Japan 14. Sep - 18. Sep 2008

Oral

*Klaus, M., Genzel, Ch.; Holzschuh, H.*

**Residual Stress Depth Profiling in Complex Hard Coating Systems by X-ray Diffraction**

International Conference on Metallurgical Coatings and Thin Films

San Diego, USA 28. Apr - 02. May 2008

Oral

*Matsushima, U.; Graf, W.; Zabler, S.; Kardjilov, N.; Herppich, W.B.*

**Application of cold neutron and synchrotron X-ray imaging to investigate rose bent neck syndrome**

International symposium on postharvest quality of ornamental plants

Aarhus, Denmark 11. Aug - 14. Aug 2008

Oral

*Matsushima, U.; Herppich, W.B.; Kardjilov, N.; Graf, W.; Hilger, A.; Manke, I.*

**Estimation of water flow velocity in small plants using cold neutron imaging with D<sub>2</sub>O tracer**

International Topical Meeting on Neutron Radiography (ITMNR)

Kobe, Japan 14. Sep - 18. Sep 2008

Oral

*Matsushima, U.; Kardjilov, N.; Graf, W.; Hilger, A.; Herppich, W.B.*

**Water distribution analysis in plants using cold neutron radiography - Calculation of D<sub>2</sub>O tracer vectors -**

17th Annual Meeting of Bioimaging Society

Chiba University, Japan 30. Oct - 01. Nov 2008

Oral

*Matsushima, U.; Kardjilov, N.; Hilger, A.; Herppich, W.B.*

**In-situ visualization of water flow in seedling using neutron radiography**

Symposium on Horticulture in Europe (SHE2008)

Vienna, Austria 17. Feb - 20. Feb 2008

**Oral**

Matsushima, U.; Kardjilov, N.; Hilger, A.; Herppich, W.B.

**In-situ Visualization of Water Flow in Seedlings-Application of Cold Neutron Radiography with D2O Tracer and the Influences for Plants**

International Conference on Agricultural Engineering & Industry Exhibititon  
Hersonissos, Greece 23. Jun - 25. Jun 2008

**Oral**

Matsushima, U.; Kardjilov, N.; Hilger, A.; Manke, I.; Shono, H.; Herppich, W.B.

**Visualization of water usage and photosynthetic activity of street trees exposed to 2ppm of SO<sub>2</sub> - a combined evaluation by cold neutron and chlorophyll fluorescence imaging**

International Topical Meeting on Neutron Radiography (ITMNR)  
Kobe, Japan 14. Sep - 18. Sep 2008

**Oral**

Matsushima, U.; Kardjilov, N.; Hilger, A.; Shono, H.; Herppich, W.B.

**An Application of cold Neutron and Chlorophyll Fluorescence Imaging for Studies an Auto-Exhaust Resistance in Street Trees**

International Conference on Agricultural Engineering & Industry Exhibition  
Hersonissos, Greece 23. Jun - 25. Jun 2008

**Oral**

Schröder, A.; Wippermann, K.; Mergel, J.; Lehnert, W.; Sanders, T.; Manke, I.; Hilger, A.; Kardjilov, N.; Petrov, S.; Hartnig, C.

**Investigation of the current and fluid distribution in a direct methanol fuel cell by electrochemical methods and neutron radiography**

Ulm ElectroChemical Talks  
Ulm, 10. Jun - 12. Jun 2008

**PT****Oral**

Denker, A.; Rethfeldt, C.; Röhrich, J.; Weber, A.

**Eye tumour therapy in Berlin: The conversion of a multi-purpose accelerator laboratory into a dedicated proton therapy facility**

European Cyclotron Progress Meeting  
Berlin 15. Oct - 18. Oct 2008

**Poster**

Denker, A.; Cordini, D.; Foerster, M.; Moser, L.; Rethfeldt, C.; Röhrich, J.; Stark, R.; Weber, A.

**Eye tumour therapy in Berlin: Converting a multi-purpose accelerator laboratory into a dedicated proton therapy facility**

Particle Therapy Co-Operative Group PTCOG47  
Jacksonville, Florida 21. May - 25. May 2008

**ISL.User****Poster**

De, U.; Mändle, St.; Röhrich, J.; Bohne, W.; Rauschenbach, B.

**TOF-SIMS and TOF-ERDA Characterization of Cadmium and Magnesium Oxides**

IBMM2008  
Dresden 31. Aug - 05. Sep 2008

**SF - BESSY****SF2.BESSY**

Oral

*Darowski, N.***Reorientation transition in Fe/Pt multilayers studied by means of depth-selective x-ray magnetic dichroism**72ste Frühjahrstagung der Deutschen Physikalischen Gesellschaft  
Berlin 25. Feb - 29. Feb 2008

Invited Talk

*Feyerherm, R.***Interplay between rare earth and manganese magnetism and its effect on ferroelectricity in or-RMnO<sub>3</sub>**Deutsche Neutronenstreuungtagung 2008  
Garching 15. Sep - 17. Sep 2008**SF3.BESSY**

Poster

*Haug, J.; Kruth, H.; Dubiel, M.; Hofmeister, H.; Haas, S.; Tatchev, D.; Hoell, A.***ASAXS study on the formation of core-shell Ag/Au nanoparticles in glasses produced by ion implantation**BESSY User Meeting  
Berlin, Germany 04. Dec - 05. Dec 2008

Invited Talk

*Hoell, A.; Haas, S.; Heinemann, A.; Tatchev, D.; Kranold, R.; Goerigk, G.; Müller, M.; Banhart, J.***Anomalous Small Angle X-ray Scattering and its Application to photochromic Glasses**Fourth Balkan Conference on Glass Science and Technology  
Varna, Bulgarien 27. Sep - 01. Oct 2008

Oral

*Kasyutich, O.; Tatchev, D.; Hoell, A.; Ogrin, F.; Dewhurst, C.; Schwarzacher, W.***Small angle X-ray and neutron scattering study of disordered and 3D-ordered magnetic protein arrays**

53rd MMM Meeting

Austin, Texas, USA 10. Nov - 14. Nov 2008

Invited Talk

*Kasyutich, O.I.; Sarua, A.; Figueiredo, W.; Tatchev, D.; Hoell, A.; Haas, S.; Schwarzacher***3-dimentional nano-particle arrays produced by protein crystallisation**

Nanoscale Phenomena and Structures in Bulk and Surface Phases

Sofia, Bulgaria 26. Feb - 02. Mar 2008

Oral

*Klaus, M.; Reimers, W.; Genzel, Ch.***Application of Energy-Dispersive Diffraction to the Analysis of Highly Inhomogeneous Residual Stress Fields in Thin Film Structures**

8th International Conference on Residual Stresses

Denver, USA 04. Aug - 08. Aug 2008

Oral

*Tatchev, D.; Hoell, A.; Eichelbaum, M.; Rademann, K.***In situ SAXS-Study of the formation of gold nano-particles in soda-lime-silicate glasses**

Fourth Balkan Conference on Glass Science and Technology

Varna, Bulgarien 27. Sep - 01. Oct 2008

## SF1 - Methods and Instruments

### SF1.Dynamics

Invited Talk

*Pappas, C., Cywinski, R.; Pickup, R.; Farago, B.; Fouquet, P.; Falus, P.*

#### **Generalized approach to non-exponential relaxation**

International Symposium on Neutron Scattering

Atomic Research Centre, Mumbai, India 15. Jan - 18. Jan 2008

### SF1.Methods

Invited Talk

*Jauch, W., Reehuis, M.*

#### **Charge density in ferromagnetic iron and nickel from gamma-ray diffraction**

5th European Charge Density Meeting

Gravedona (Italy) 06. Jun - 11. Jun 2008

Poster

*Krist Th.; Pappas C.; Teichert A.; Fehr C.; Clemens D.; Steichele E.; Mezei F.*

#### **New Polarizing Guide for Neutron Wavelengths above 2.5 Å**

Polarized Neutrons in Condensed Matter Investigations

Tokai, Japan 01. Sep - 05. Sep 2008

Invited Talk

*Pappas, C.*

#### **Neutron Properties and Sources**

5th LANCE Neutron School 2008

Los Alamos, New Mexico, USA 23. Jul - 01. Aug 2008

Invited Talk

*Pappas, C.*

#### **Neutron Instrumentation**

5th Los Alamos Neutron School 2008

Los Alamos, New Mexico, USA 23. Jul - 01. Aug 2008

Oral

*Pappas, C. ; Lelievre-Berna, E. ; Bentley, P. ; Moskvin, E. ; Farago B.; Falus P.; Grigoriev, S. ; Dyadkin, V*

#### **Polarimetric Neutron Spin Echo Spectroscopy**

21st Congress of the International Union of Crystallography

Osaka, Japan 23. Aug - 31. Aug 2008

Oral

*Pappas, C., Lelievre-Berna, E., Bentley, P.M., Moskvin, E., Grigoriev, S., Dyadkin, V.*

#### **Polarimetric Neutron Spin Echo Spectroscopy**

Deutsche Neutronenstreutagung 2008

Garching, Deutschland 15. Sep - 17. Sep 2008

Invited Talk

*Pappas, C.; Lelièvre-Berna E.; Bentley P.; Moskvin E.; Farago B.; Falus P.; Krist Th.; Grigoriev S.; Dyadkin V.*

#### **Challenges in Neutron Spin Echo Spectroscopy**

Polarized Neutrons in Condensed Matter Investigations

Tokai, Japan 01. Sep - 05. Sep 2008

Oral

*Pappas, C.; Lelièvre-Berna, E.; Bentley, P.; Moskvin, E.; Farago, B.; Falus, P.; Grigoriev, S.; Dyadkin, V.*

#### **Polarimetric Neutron Spin Echo : Feasibility and first Results**

American Conference on Neutron Scattering

Santa Fe, New Mexico, USA 11. May - 15. May 2008

Oral

Pappas, C.; Lelièvre-Berna, E.; Bentley, P.,; Moskvin, E.; Farago, B.; Falus, P.; Grigoriev, S.; Dyadkin, V.

**Polarimetric Neutron Spin Echo : Feasibility and first Results**

NMI3 General Meeting

Ajaccio, Corsica, France 25. Jun - 27. Jun 2008

Invited Talk

Steitz, R.

**Reflectivity & GISAS**

Workshop zum Thema Streumethoden, SPP 1273 Kolloidverfahrenstechnik

Universität Bayreuth, 29.09.2008

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## SF1.Others

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Poster

Chmielus, M.; Chernenko, V.A.; Hilger, A.; Kostorz, G.; Müllner, P.; Schneider, R.

**MAGNETO&#8208;MECHANICAL PROPERTIES AND FRACTURE OF A MECHANICALLY CONSTRAINED NI&#8208;MN&#8208;GA SINGLE CRYSTAL AFTER EXTENDED MAGNETIC CYCLING**

ICOMAT 2008

Santa Fe, NM, USA 29. Jun - 05. Jul 2008

Oral

Köhler, R., Dösch, I., Ott, P., Laschevsky, A., Krastev, R.

**Swelling of ultra thin polyelectrolyte multilayers of different charge density in water vapour**

DPG Frühjahrskonferenz 2008

Berlin 25. Feb - 29. Feb 2008

Oral

Papaefthimiou, V.; Günther, J.-U.; Helm, C. A.; Förster, S.; Findenegg, G. H., and Steitz, R.;

**Reversible activation of a polyelectrolyte brush**

72st Annual Meeting and DPG-Spring Meeting of the Divison Condensed Matter

Berlin 25. Feb - 29. Feb 2008

Poster

Steitz, R.; Papaefthimiou, V.; Günther, J.-U.; Helm, C. A.; Findenegg, G. H.;

**Reversible activation of a polyelectrolyte brush: Responsive monolayers**

Deutsche Neutronenstreutagung 2008

TU München 14. Sep - 17. Sep 2008

Oral

Steitz, R.; Papaefthimiou, V.; Günther, J.-U.; Helm, C. A.; Förster, S.; Findenegg, G. H.;

**Reversible activation of a polyelectrolyte brush**

AVS 55th International Symposium

Boston, MA, USA 19. Oct - 24. Oct 2008

Poster

Teichert, A.; Krist, T.; Steitz, R.;

**Diffuse scattering from polarizing supermirrors**

Deutsche Neutronenstreutagung 2008

TU München 14. Sep - 17. Sep 2008

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## SF3.Tomo

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Oral

Manke, I.; Kardjilov, N.; Hilger, A.; Strobl, M.; Banhart, J.

**Applications of neutron imaging in science and technology**

Workshop on NEUtron WAVElength dependend IMAGING (NEUWAVE IMAGING)

München, Germany 20. Apr - 24. Apr 2008

## SF2 - Magnetism

### SF2.Novel Mat.

Poster

*Schierle, E.; Soltwisch V.; Schmitz, D.; Feyerherm, R.; Argyriou, D.; Weschke, E.*

**Resonant soft x-ray scattering from DyMnO<sub>3</sub>**

DPG Frühjahrstagung des Arbeitskreises Festkörperphysik

Berlin 25. Feb - 29. Feb 2008

### SF2.Thin films

Oral

*Andersson, C.; Sanyal, B.; Eriksson, O.; Nordström, L.; Karis, O.; Arvanitis, D.; Konishi, T.; Holub-Krappe, E.; Hunter-Dunn, J.:*

**Influence of ligand states on the relationship between orbital moment and magneto-crystalline anisotropy**

72nd Annual Meeting 2008, DPG-Spring Meeting of the Cond. Matter Section

Berlin 25. Feb - 29. Feb 2008

Invited Talk

*Bak-Misiuk, J.; Anna Wolska, A.; Lawniczak-Jablonska, K.; Klepka, M. T.; Sadowski, J.; Holub-Krappe, E.; Persson, A.; Arvanitis, D.; Dynowska, E.; Romanowski, P.; Domagala, J.; Caliebe, W.:*

**Structural and magnetic properties of MBE grown MnSb layers**

XXI Congress of the Int. Union of Crystallography

Osaka, Japan 23. Aug - 31. Aug 2008

Invited Talk

*Holub-Krappe, E.; Andersson, C.; Sakamaki, M.; Konishi, T.; Fujikawa, T.; Rossner, H. H.; Sanyal, B.; Eriksson, O.; Nordstrom, L.; Hunter Dunn, J.; Persson, A.; Karis, O.; Arvanitis, D.:*

**Structural effects and the spin reorientation in Au/Co/Au films**

XXI Congress of the Int. Union of Crystallography, IUCr2008

Osaka, Japan 23. Aug - 31. Aug 2008

Poster

*Lawniczak-Jablonska, K.; A. Wolska, A.; Libera, J.; Klepka, M.T.; Sadowski, J.; Holub-Krappe, E.; Persson, A.; Arvanitis, D.:*

**Ga INTERSTITIAL SITE OCCUPATION BY Mn ATOMS IN GaAs: EXAFS AND XANES EVIDENCE**

9th Int. School and symposium on Synchrotron Radiataion in Natural Science (ISSRNS-9))

Ameliówka, nier Kielce, Poland 15. Jun - 20. Jun 2008

Invited Talk

*Lawniczak-Jablonska, K.; Wolska, A.; Klepka, M. T.; Sadowski, J.; Holub-Krappe, E.; Persson, A.; Arvanitis, D.:*

**Mn atoms in GaAs: first evidence for Ga interstitial site occupation**

XXI Congress of the Int. Union of Crystallography

Osaka, Japan 23. Aug - 31. Aug 2008

Oral

*Sakamaki, M.; Andersson, C.; Konishi, T.; Fujikawa, T.; Holub-Krappe, E.; Rossner, H.; Karis, O.; Persson, A.; Arvanitis, D.:*

**Co L-edge EXAFS analysis of Au/Co/Au/W(110) magnetic thin films**

72nd Annual Meeting 2008, DPG-Spring Meeting of the Condensed Matter Section

Berlin 25. Feb - 29. Feb 2008

**Invited Talk**

Sakamaki, M.; Andersson, C.; Konishi, T.; Fujikawa, T.; Holub-Krappe, E.; Rossner, H.; Krappe, H.; Karis, O.; Persson, A.; Arvanitis, D.:

**Co L-edge EXAFS analysis of Au/Co/Au magnetic thin films**

The 11th meeting of the Japanese XAFS Society

Himeji, Japan 06. Aug - 08. Aug 2008

**Poster**

Schierle, E.; Schmitz, D.; Springholz, G.; Weschke, E.

**Magnetic phase transitions at interfaces studied by resonant magnetic soft x-ray scattering.**

DPG Frühjahrstagung des Arbeitskreises Festkörperphysik

Berlin 25. Feb - 29. Feb 2008

**Poster**

Wolska, A.; Lawniczak-Jablonska, K.; Klepka, M. T.; Sadowski, J.; Holub-Krappe, E.; Persson, A.; Arvanitis, D.:

**X-ray Absorption and Magnetic Circular Dichroism on MnSb Layers grown by MBE**

9th Int. School and symp. on Synchrotron Radiation in Natural Science (ISSRNS 2008)

Ameliówka, near Kielce, Poland 15. Jun - 20. Jun 2008

**Poster**

Wolska, A.; Lawniczak-Jablonska, K.; Sadowski, J.; Holub-Krappe, E.; Persson, A.; Arvanitis, D.:

**X-ray Magnetic Circular Dichroism on MnSb layers grown by MBE**

Workshop on High temporal and spatial resolution of ultrathin magnetic films properties

Augustów, Poland 27. Jun - 02. Jul 2008

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**SF3.Microstructure**

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**Oral**

Zizak, I.; Darowski, N.; Klaumünzer, S.; Schumacher, G.; Gerlach, J.; Assmann, W.

**Grain rotation in nanocrystalline layers under influence of swift heavy ions**

Seventh international symposium on swift heavy ions in matter (SHIM2008)

Lyon, France 02. Jun - 05. Jun 2008

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**SF6.Others**

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**Invited Talk**

H.N. Bordallo

**Natural Soil Environments: The role of cations and superparamagnetic iron oxides**

Deutschen Neutronenstreuungtagung 2008

Garching, Germany 14. Sep - 17. Sep 2008

**Oral**

H.N. Bordallo, J. de Souza, P. de Tarso, D. Argyriou

**Structural Isotopic Effects in the smallest chiral amino acid: Observation of a structural phase transition in fully deuterated alanine.**

2008 APS March Meeting

New Orleans, Louisiana, USA 10. Mar - 14. Mar 2008

## SF3 - Materials

### SE5.Energetics

Oral

*I. Dorbandt, G. Zehl, P. Bogdanoff, K. Wippermann, S. Haas, A. Hoell, M. Wollgarten, S. Fiechter*

**Preparation strategies and structural characterization of selenium modified ruthenium nano-particles as cathode catalyst for PEM fuel cells.**

213th ECS Meeting, Phoenix (AZ) 2008

Phoenix 18. May - 22. May 2008

Poster

*Zehl, G.; Dorbandt, I.; Bogdanoff, P.; Fiechter, S.*

**Selenium-modified ruthenium-nanoparticles as a highly selective electrocatalyst for the oxygen reduction in DMFCs**

F-Cell, 8. Internationales Forum für Produzenten und Anwender

Stuttgart, Germany 28. Sep - 29. Sep 2008

## SF1.Others

Poster

*Chmielus, M.; Chernenko, V.A.; Hilger, A.; Kostorz, G.; Müllner, P.; Schneider, R.*

**MAGNETO & 8208;MECHANICAL PROPERTIES AND FRACTURE OF A MECHANICALLY CONSTRAINED NI & 8208;MN & 8208;GA SINGLE CRYSTAL AFTER EXTENDED MAGNETIC CYCLING**

ICOMAT 2008

Santa Fe, NM, USA 29. Jun - 05. Jul 2008

### SF3.Light weight mat.

Invited Talk

*Garcia-Moreno, F.; Goarke Sanjeeviah, V.K.; Brothers, A.; Banhart, J.*

**Stabilisation of aluminium foam by solid particles**

17th International Symposium on Surfactants in Solution, SIS 2008

Berlin, Germany 18. Aug - 22. Aug 2008

Oral

*Garcia-Moreno, F.; Jiménez, C.; Mukherjee, M.; Holm, P.; Banhart, J.*

**Experiments on metallic foams under gravity and microgravity**

EUFOAM 2008

Noordwijk, The Netherlands 08. Jul - 10. Jul 2008

Oral

*Garcia-Moreno, F.; Raffaele, Nunzio; Banhart, J.*

**Optimisation of Mould Filling during PM Metal Foaming**

Cellular Metals for Structural and Functional Applications (CellMet)

Dresden, Germany 08. Oct - 10. Oct 2008

Oral

*Garcia-Moreno, F.; Seeliger, W.; Mukherjee, M.; Jiménez, C.; Banhart, J.*

**Aluminium Foam Sandwich Technology: Research and Applications**

11th International Conference on Aluminium Alloys

Aachen, Germany 22. Sep - 26. Sep 2008

Poster

*Mukherjee, M.; Ramamurty, U.; Garcia-Moreno, F.; Banhart, J.*

**Influence of Cooling Rate on the Structure of Closed-cell Aluminium Foams**

11th International Conference on Aluminium Alloys

Aachen, Germany 22. Sep - 26. Sep 2008

**SF3.Microstructure**

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Oral

*Chang, C.S.T.; Wanderka, N.; Banhart, J.*

**Investigation of natural aging on precipitation in Al-Mg-Si alloy**

DPG Frühjahrstagung

Berlin 25. Feb - 29. Feb 2008

Oral

*Chang, C.S.T.; Wieler, I.; Wanderka, N.; Banhart, J.*

**Positive and negative effect of natural aging on the precipitation in the Al-Mg-Si alloys**

International Conference of Aluminium Alloys 11

Aachen, Germany 22. Sep - 26. Sep 2008

Oral

*Chang, C.S.T.; Wieler, I.; Wanderka, N.; Banhart, J.*

**Precipitation in Al-Mg-Si Alloys**

IFES 2008

Rouen, France 29. Jun - 04. Jul 2008

Oral

*Höring, S.; Wanderka, N.; Banhart, J.*

**Microchemical investigation of the hardening Phase of Fe-Cr-Ni-Al-(Cu) Model alloys**

51st International Field Emission Symposium

Rouen, Frankreich 29. Jun - 04. Jul 2008

Oral

*Lazarev, N.; Abromeit, C.; Schäublin, R.; Gotthardt, R.*

**Molecular dynamics simulation of track development in a model NiAl alloy**

TAEA Technical Meeting (TM3467)

NSC Kharkov, Ukraine 09. Jun - 13. Jun 2008

Oral

*Matsumura, S.; Hata, S.; Takahashi, T.; Abromeit, C.*

**Time-Evolution of Short-Range and Long-Range Ordering in Ni<sub>4</sub>Mo Alloys during Isothermal Annealing and under Irradiation Studied by Monte-Carlo Simulation**

TMS Conference USA

New Orleans, USA 10. Mar - 10. Mar 2008

Oral

*Mechler, S.; Schumacher, G.; Zizak, I.; Macht, M.-P.; Wanderka, N.*

**Are metallic glasses destabilized, frustrated quasicrystals?**

RQ 13

Dresden, Germany 24. Aug - 29. Aug 2008

Oral

*Radiguet, B.; Wanderka, N.; Sahoo, K.L.; Blavette, D.; Banhart, J.*

**Segregation-controlled nanocrystallization in Al-Ni-La metallic glass**

RQ 13

Dresden, Germany 24. Aug - 29. Aug 2008

Invited Talk

*Schumacher, G.; Mechler, S.; Klaumünzer, S.; Wanderka, N.; Macht, M.-P.; Abromeit, C.*

**Amorphization at Grain Boundaries in Zr-Ti-Ni-Cu Alloys by 300 MeV Kr Ions**

2008 TMS Annual Meeting & Exhibition

New Orleans, LA, USA 09. Mar - 13. Mar 2008

Oral

Scudino, S.; Surreddi, K.B.; Nguyen, H.V.; Sakaliyska, M.; Stoica, M.; Vierke, J.; Wollgarten, M.; Kim, J.S.; Eckert, J.

**Synthesis and mechanical properties of bulk nanocrystalline Al87Ni8La5 prepared by hot extrusion of gas atomized amorphous powders**

Advance Processing for Novel Functional Materials (APNFM)

Dresden 23. Jan - 25. Jan 2008

Oral

Surreddi, K.B.; Nguyen, H.V.; Sakaliyska, M.; Scudino, S.; Stoica, M.; Wollgarten, M.; Kim, J.-S.; Eckert, J.

**Synthesis and mechanical properties of Al-Ni-La alloys prepared by hot extrusion and spark plasma sintering of gas atomized powders**

DPG Frühjahrstagung

Berlin, Germany 25. Feb - 29. Feb 2008

Oral

Surreddi, K.B.; Scudino, S.; Nikolowski, K.; Stoica, M.; Sakaliyska, M.; Nguyen, H.V.; Kim, J.S.; Vierke, J.; Wollgarten, M.; Eckert, J.

**Spark plasma sintering of gas atomized Al87Ni8La5 amorphous powders**

13th Int. Conference on Rapidly Quenched & Metastable Materials

Dresden, Germany 24. Aug - 29. Aug 2008

Oral

Vierke, J.; Schumacher, G.; Denks, I.; Wanderka, N.; Wollgarten, M.; Banhart, J.; Zizak, I.; Pilyugin, V.P.; Balog, M.; Nagy, J.; Simancik, F.

**Strain- and Temperature-induced Glass-to-Crystal Transformations in Al-Ni-La Glass**

DPG Frühjahrstagung 2008

Berlin, Germany 25. Feb - 29. Feb 2008

Oral

Wanderka, N.; Abromeit, C.; Banhart, J.

**Specimen fabrication from thin foil for Atom Probe using FIB/SEM**

IFES 2008

Rouen, France 29. Jun - 04. Jul 2008

Invited Talk

Wollgarten, M.

**Das Anwenderzentrum für Tomographische Methoden in der Werkstoffforschung**

5. Präparatorentreffen Berlin-Brandenburg

Berlin, Germany 24. Apr - 24. Apr 2008

Poster

Wollgarten, M.; Grothausmann, R.; Bogdanoff, P.; Zehl, G.; Dorbandt, I.; Fiechter, S.; Banhart, J.

**Ruthenium deposition CO<sub>2</sub>-treated and untreated carbon black investigation by electron tomography**

14th European Microscopy Congress

Aachen, Germany 01. Sep - 05. Sep 2008

Invited Talk

Wollgarten, M.; Grothausmann, R.; Fischer, A.

**Electron Tomography - Introduction and Applications**

1st ASIA EFTEM Workshop

Singapore 10. Nov - 12. Nov 2008

Oral

Wollgarten, M.; Haas, S.; Tatchev, D.; Hoell, A.; Banhart, J.

**Investigation of the microstructure during devitrification of amorphous Al88Sm12**

13th Int. Conference on Rapidly Quenched & Metastable Materials

Dresden, Germany 24. Aug - 29. Aug 2008

Oral

Zizak, I.; Darowski, N.; Klaumünzer, S.; Schumacher, G.; Gerlach, J.; Assmann, W.

**Grain rotation in nanocrystalline layers under influence of swift heavy ions**

Seventh international symposium on swift heavy ions in matter (SHIM2008)

Lyon, France 02. Jun - 05. Jun 2008

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### SF3.Scattering

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Invited Talk

Denks, I.

**Problems related to near surface residual stress analysis by means of diffraction methods - comparison of angle- and energy-dispersive techniques**

11th European Powder Diffraction Conference (EPDIC )

Warschau, Poland 19. Sep - 22. Sep 2008

Invited Talk

Denks, I.; Manns, T.; Genzel, Ch.; Scholtes, B.

**An experimental approach to the problem of transforming stress distributions from the LAPLACE - into real space**

11 European Powder Diffraction Conference

Warsc 19. Sep - 22. Sep 2008

Invited Talk

Genzel, Ch.

**Messung innerer Spannungen in Werkstoffen und Bauteilen mit Röntgenstrahlen - Stand und Perspektiven**

Industrieforum 2008, DESY

Hamburg, Germany 05. Nov - 05. Nov 2008

Oral

Haas, S.; Heinemann, A.; Kranold, R.; Tatchev, D.; Goerigk, G.; Müller, M.; Hoell, A.

**Nanostructure of silver-free photochromic glasses studied by anomalous small angle X-ray scattering**

IUCr2008 - XXI Congress and General Assembly of the International Union of Crystallography

Osaka, Japan 23. Aug - 31. Aug 2008

Invited Talk

Hoell, A.

**Anomale Röntgenkleinwinkelstreuung und ihre Anwendung auf Glas und Glaskeramik**

Fachausschuss der DGG: Physik und Chemie des Glases innerhalb der Deutschen Glastechnischen Gesellschaft

Würzburg, Germany 13. Mar - 13. Mar 2008

Poster

Hoell, A.; Heinemann, A.; Haas, S.; Tatchev, D.; Kranold, R.; Müller, M.; Goerigk, G.

**Nano-structure and chemical composition of a silver-free photochromic glass analysed by ASAXS**

HASYLAB user's meeting 2008

Hamburg, Germany 25. Jan - 25. Jan 2008

Poster

Hoell, A.; Tatchev, D.; Haas, S.; Banhart, J.

**On the element sensitive analysis of nano-structures by Anomalous Small Angle X-ray Scattering**

Synchrotron Radiation in Material Science 6 (SRMS-6)

Campinas, Brasilien 20. Jul - 23. Jul 2008

Oral

*Klaus, M.; Reimers, W.; Genzel, Ch.*

**Application of Energy-Dispersive Diffraction to the Analysis of Highly Inhomogenous Residual Stress Fields in Thin Film Structures**

The 8th International Conference on Residual Stresses

Denver, USA 06. Aug - 08. Aug 2008

Oral

*Tatchev, D.; Hoell, A.; Eichelbaum, M.; Rademann, K.*

**In situ SAXS-Study of the Formation of Gold Nano-particles in Soda-lime-silicate Glass**

XII.th Research Workshop Nucleation Theory and Application

Dubna, Russia 12. Apr - 20. Apr 2008

Oral

*Tatchev, D.; Hoell, A.; Eichelbaum, M.; Rademann, K.*

**Small angle X-ray scattering study of the formation of gold nanoparticles in glass**

Nanoscale Phenomena and Structures in Bulk and Surface Phases

Sofia, Bulgaria 26. Feb - 02. Mar 2008

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## SF3.Tomo

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Poster

*Dawson, M.; Hilger, A.; Kardjilov, N.; Manke, I.; Strobl, M.; Grünzweig, C.; Pfeiffer, F.; David, C.; Banhart, J.*

**Interferometric imaging with neutrons**

ITMNR-6

Kobe, Japan 14. Sep - 18. Sep 2008

Oral

*Dawson, M.; Kardjilov, N.; Hilger, A.; Manke, I.; Banhart, J.*

**Neutron imaging at HMI**

NeuWave Imaging

Garching, Germany 20. Apr - 24. Apr 2008

Oral

*Grupp, R.; Nöthe, M.; Kieback, B.; Banhart, J.*

**In-situ Investigation of Cooperative Material Transport During the Early Stage of Sintering by Synchrotron X-ray Computed Tomography**

Sintering 2008

La Jolla, CA, USA 16. Nov - 20. Nov 2008

Poster

*Grupp, R.; Nöthe, M.; Kieback, B.; Banhart, J.*

**In-situ Investigation of Particle Rearrangement during Sintering using High-Resolution Synchrotron Tomography**

Virtual Institute Photon and Neutron Research on Advanced Engineering Materials

Berlin, Germany 05. May - 06. May 2008

Invited Talk

*Grupp, R.; Nöthe, M.; Kieback, B.; Banhart, J.*

**Tomographic in-situ analysis of particle rotations during sintering**

Sintering 2008

La Jolla, California, USA 16. Nov - 20. Nov 2008

Oral

*Hartnig, Ch.; Lehnert, W.; Manke, I.; Banhart, J.*

**In situ observation of liquid water evolution and transport in PEM fuel cell**

European Fuel Cell Technology and Applications

Rome, Italy 11. Dec - 14. Dec 2008

Oral

*Kardjilov, N.; Hilger, A.; Manke, I.; Banhart, J.*

**The role of monochromatic beams in neutron imaging techniques**

Workshop on NEUtron WAVElength dependend IMAGING (NEUWAVE IMAGING)

München, Germany 20. Apr - 24. Apr 2008

Oral

*Manke, I.; Hartnig, C.; Kardjilov, N.; Hilger, A.; Petrov, S.; Banhart, J.*

**Detektor-Entwicklung und Bildgebende Verfahren**

1st RunPEM Workshop

Darmstadt, 15. Apr - 15. Apr 2008

Oral

*Manke, I.; Hilger, A.; Kardjilov, N.; Schloesser, J.; Petrov, S.; Hartnig, Ch.; Wippermann, K.; Schröder, A.; Sanders, T.; Krüger, P.; Kuhn, R.; Wanderka, N.; Banhart, J.*

**Entwicklungen am HZB: Detektorentwicklung, Bildanalyse, FIB-Tomographie**

2nd RunPEM Workshop

Berlin 10. Nov - 10. Nov 2008

Oral

*Manke, I.; Kardjilov, N.; Hilger, A.; Strobl, M.; Banhart, J.*

**Applications of neutron imaging in science and technology**

Workshop on NEUtron WAVElength dependend IMAGING (NEUWAVE IMAGING)

München, Germany 20. Apr - 24. Apr 2008

## SF6 - Trace Elements

### SF6.Analysis

Poster

*Falkenberg, G.; Fleissner, G.; Fleissner, G.; Schuchardt, K.; Kühbacher, M.; Chalmin, E.; Janssens, K.*

**High resolution micro-XRF maps and electron microscopy of iron oxides inside sensory dendrites of avian magnetoreceptors**

9th International Conference on X-Ray Microscopy

Zürich 21. Jul - 25. Jul 2008

Poster

*Fleissner, G.; Fleissner, G.; Schuchardt, K.; Kühbacher, M.; Falkenberg, G.*

**High resolution &#956;-XRF topography and electron microscopy of iron oxides inside sensory dendrites of avian magnetoreceptors**

HASYLAB Users? Meeting 2008

Hamburg 25. Jan - 25. Jan 2008

Invited Talk

*Hoffmann, J.U.; Kühbacher, M.; Rethfeldt, C*

**Datenarchivierung - Positionen im Bereich Strukturforschung**

Workshop über die Archivierung von wissenschaftlichen Primärdaten, HZB

Berlin 08. Jul - 09. Jul 2008

Poster

*Kühbacher, M.; Bartel, J.; Felsenberg, J.; Eisenhardt, D.; Grünwald, B.; Herzen, J.; Beckmann, F.; Riesemeier, H.; Zabler, S.; Manke, I.; Kyriakopoulos, A.*

**Novel insights into honeybees with neutrons and photons**

European Conference on Metallobiomics

Berlin 03. Dec - 04. Dec 2008

## Poster

Kühbacher, M.; Bartel, J.; Grbavac, I.; Bukalis, G.; Alber, D.; Behne, D.; Kyriakopoulos, A.

**Berlin's Neutrons: Classical and Modern Tool for the Life Sciences**

Festkolloquium - 50 Jahre Neutronenforschung in Berlin

Berlin 14. Jul - 15. Jul 2008

## Invited Talk

Kühbacher, M.; Bartel, J.; Grbavac, I.; Bukalis, G.; Alber, D.; Falkenberg, G.; Schade, U.; Bohic, S.; Behne, D.; Kyriakopoulos, A.

**Elemental analysis and spectroscopy with coordinates**

European Conference on Metallobiomics

Berlin 03. Dec - 04. Dec 2008

## Poster

Kuehbacher, M.; Gruenewald, B.; Falkenberg, G.; Welter, E.; Herzen, J.; Beckmann, F.; Kyriakopoulos, A.

**Synchrotron based characterisation of insect brains with X-rays**

HASYLAB Users' Meeting 2008

Hamburg 25. Jan - 25. Jan 2008

## Oral

Kyriakopoulos, A.

**Metallo/Metalloidproteine in der pharmazeutischen Analytik**

TFH-Workshop FB II

Berlin 15. May - 15. May 2008

## Oral

Kyriakopoulos, A.

**Ein neues Cu-haltiges Protein**

Vortrag FU Berlin/Radioanalytik

Berlin 24. Apr - 24. Apr 2008

## Poster

Schmidt, F.; Kühbacher, M.; Galanbor, Z.; Zehbe, R.; Bodmeier, R.; Kyriakopoulos, A.; Schubert, H.

**Drug release from biodegradable polymer substrates for chemical stimulation of neural cells**

European Conference on Metallobiomics

Berlin 03. Dec - 04. Dec 2008

## Poster

Schubert, H.; Schmidt, F.; Zehbe, R.; Thormann, F.; Bodmeier, R.; Ghalanbor, Z.; Gross, U.; Kühbacher, M.

**Concept for a Neuronal Regeneration System Based on Micro Structured Film Electrodes with****Integrated Drug-Release-System**

Berlin Brandenburg Center for Regenerative Therapies Retreat

Berlin 06. Nov - 08. Nov 2008

## Poster

Seidel, S.; Kühbacher, M.; Wessel, A.; Hartung, V.; Hilger, A.; Choinka, G.; Manke, I.; Riesemeier, H.

Kyriakopoulos, A.; Hoch, H.

**Tomographic insights in evolution**

27th BESSY Users' Meeting

Berlin 04. Dec - 05. Dec 2008

## Poster

Seidel, S.; Wessel, A.; Kühbacher, M.; Hilger, A.; Hoch, H.

**Comparative morphology of genital structures in Butterfly Bugs (Insecta: Hemiptera: Fulgoridae)**

101. Jahrestagung der Deutschen Zoologischen Gesellschaft

Jena 19. Sep - 22. Sep 2008

Invited Talk

*Wolf, C.*

**Analyse von Cd-Spezies im Urin von Krebspatienten**

Elementspektroskopie Anorganica 2008

Berlin 18. Sep - 18. Sep 2008

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## SF6.NAA

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Poster

*Laades, A.; Lauer, K.; Bähr, M.; Maier, C.; Lawerenz, A.; Alber, D.; Nutsch, J.; Lossen, J.; Koitzsch, C.; Kibizov, R.*

**Impact of iron contamination on CZ silicon solar cells**

23rd European Photovoltaic Solar Energy Conference and Exhibition

Valencia, Spain 01. Sep - 05. Sep 2008

Poster

*Simons, C.; Mans, C.; Hanning, S.; Janßen, A.; Alber, D.; Radke, M; Reinholz, U.; Kreyenschmidt, M.*

**New Polymeric Reference Materials for XRF and LA-ICP-MS - Development and Characterization**

European Conference on X-ray Spectrometry

Cavtat, Croatia 16. Jun - 20. Jun 2008

Poster

*Simons, C.; Mans, C.; Hanning, S.; Janßen, A.; Alber, D.; Radke, M; Reinholz, U.; Kreyenschmidt, M.*

**New Polymeric Reference Materials for XRF and LA-ICP-MS - Development and Characterization**

Analytica

München 01. Apr - 04. Apr 2008

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## SF6.Others

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Invited Talk

*H.N. Bordallo*

**Natural Soil Environments: The role of cations and superparamagnetic iron oxides**

Deutschen Neutronenstreuetagung 2008

Garching, Germany 14. Sep - 17. Sep 2008

Oral

*H.N. Bordallo, JOELMA DE SOUZA, PAULO DE TARSO, DIMITRI ARGYRIOU*

**Structural Isotopic Effects in the smallest chiral amino acid: Observation of a structural phase transition in fully deuterated alanine.**

2008 APS March Meeting

New Orleans, Louisiana, USA 10. Mar - 14. Mar 2008

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## SF6.Proteins

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Poster

*Bartel, J.; Bartz, T.; Charkiewicz, E.; Kyriakopoulos, A.*

**Studies about the Anti-Apoptotic Function of Ubiquitin C-terminal Hydrolase 3 in Combination with Supplemental Selenium**

Apoptosis 2008

Luxemburg 23. Jan - 26. Jan 2008

Poster

*Bartz, T.; Charkiewicz, E.; Bartel, J.; Soete, A.; Kyriakopoulos, A.*

**Molybdenum in Rat Colon and the Human Colon Carcinoma Cell Line HT-29**

24. Jahrestagung der Gesellschaft für Mineralstoffe und Spurenelemente

Berlin 14. Nov - 15. Nov 2008

Oral

*Kyriakopoulos, A.*

**Selenoproteine im oxidativen Stress**

Vortrag bei RINA-Technologien

Berlin 11. Dec - 11. Dec 2008

**SF8 - Structure and Dynamics**

**SF3.Microstructure**

Invited Talk

*Schumacher, G.; Mechler, S.; Klaumünzer, S.; Wanderka, N.; Macht, M.-P.; Abromeit, C.*

**Amorphization at Grain Boundaries in Zr-Ti-Ni-Cu Alloys by 300 MeV Kr Ions**

2008 TMS Annual Meeting & Exhibition

New Orleans, LA, USA 09. Mar - 13. Mar 2008

Oral

*Zizak, I.; Darowski, N.; Klaumünzer, S.; Schumacher, G.; Gerlach, J.; Assmann, W.*

**Grain rotation in nanocrystalline layers under influence of swift heavy ions**

Seventh international symposium on swift heavy ions in matter (SHIM2008)

Lyon, France 02. Jun - 05. Jun 2008

**SF8-Others**

Invited Talk

*Mahnke, H.-E.; Zizak,I.; Koteski, V.*

**SAXS studies of ion-beam induced nano-sized silver metal clusters in glass**

International workshop on Swift Heavy Ions in Matter SHIM 2008

Lyon 02. Jun - 06. Jun 2008

**SF8.Dynamics**

Invited Talk

*Grande, P.L.; Pezzi, R.P.; Hentz, A.; Sortica, M.A.; Schiwietz, G.*

**"Ab-initio and analytical line shape for high resolution ion scattering" (invited talk)**

23rd Internat. Conf. on Atomic Collisions in Solids (ICACS23)

Phalaborwa, South Africa 17. Aug - 22. Aug 2008

Invited Talk

*Grande, P.L.; Schiwietz, G.*

**Convolution approximation for the energy loss, ionization probability and straggling of fast ions (invited talk)**

7th International Symposium on Swift Heavy Ions in Matter (SHIM 2008)

Lyon, France 02. Jun - 05. Jun 2008

Oral

*Papaléo, R.M.; Silva, M.R.; Leal, R.; Barbosa, L.G.; Grande, P.L.; Roth, M.; Schattat, B.; Schiwietz, G.*

**"Cratering produced by swift heavy ions on thin organic films: the role of the projectile charge-state and the layer thickness" (selected oral contribution)**

7th International Symposium on Swift Heavy Ions in Matter (SHIM 2008)

Lyon, France 02. Jun - 05. Jun 2008

**Invited Talk**

Schiwietz, G.; Staufenbiel, F.; Roth, M.; Czerski, K.; Grande, P.L.

**"What can we learn from ion-induced Auger angular distributions?" (invited talk)**

23rd Internat. Conf. on Atomic Collisions in Solids (ICACS23)

Phalaborwa, South Africa 17. Aug - 22. Aug 2008

**Invited Talk**

Schiwietz, G.; Staufenbiel, F.; Roth, M.; Czerski, K.; Grande, P.L.

**"Electronic Energy Dissipation of Fast Charged Particles in Matter" (invited talk)**

2nd International Workshop of the SFB616 'Energy Dissipation at Surfaces'

Bad Honnef, Germany 25. Aug - 28. Aug 2008

**Oral**

Schiwietz, G.; Staufenbiel, F.; Roth, M.; Czerski, K.; Grande, P.L.

**"Auger-electron absorption during ion-track formation at metallic surfaces" (selected post-deadline talk, DPG, Oberflächen)**

72. Jahrestagung der Deutschen Physikalischen Gesellschaft

Berlin, Germany 25. Feb - 29. Feb 2008

**Oral**

Schiwietz, G.; Staufenbiel, F.; Roth, M.; Czerski, K.; Hellhammer, R.; Fadanelli, R.C.; Grande, P.L.

**"Auger angular-distribution effects related to ion-track formation" (selected oral contribution)**

7th International Symposium on Swift Heavy Ions in Matter (SHIM 2008)

Lyon, France 02. Jun - 05. Jun 2008

**SF8.Structures****Poster**

Udayan De; Röhrich, J.; Sternemann, Ch.; Bohne, W.

**Heavy Ion Elastic Recoil Detection Analysis of II-VI electronic materials**

SHIM 2008

Lyon, Frankreich 02. Jun - 04. Jun 2008

**SFN1 - Magnetism and Superconductivity of Quantum Materials****SF.N1****Oral**

Lake, B.

**Neutron Scattering Studies of Strong and Weakly-Coupled Spin-1/2 Spin Ladders.**

American Physical Society March Meeting

New Orleans, USA 10. Mar - 14. Mar 2008

**Oral**

Lake, B.

**Magnetic structure of Frustrated Haldane Chain Compound CaV<sub>2</sub>O<sub>4</sub>**

American Physical Society March Meeting

New Orleans, USA 10. Mar - 14. Mar 2008

**Oral**

Pieper, O.; Lake, B.; Daoud-Aladine, A.; Reehuis, M.; Prokes, K.; Klemke, B.; Kiefer, K.; Yan, J.Q.; Niazi, A.; Johnston, D.C.

**Magnetic structure of the quasi one-dimensional frustrated spin 1 antiferromagnet CaV<sub>2</sub>O<sub>4</sub>**

XXI IUCr Congress

Osaka, Japan 23. Aug - 31. Aug 2008

Poster

Pieper, O.; Lake, B.; Daoud-Aladine, A.; Reehuis, M.; Prokes, K.; Rule, K.; Habicht, K; Klemke, B.; Kiefer, K.; Enderle, M.; Perring, T.G.; Yan, J.Q.; Niazi, A.; Johnston, D.C.

**Canted spin chains in the frustrated S=1 Haldane material CaV<sub>2</sub>O<sub>4</sub>**

50 Jahre Neutronen, Helmholtz-Zentrum Berlin

Berlin 15. Jul - 15. Jul 2008

Poster

Quintero Castro, D.; Girata, D.

**Physical Properties in Powder, Bulk and Thin Films of La<sub>2/3</sub>Cr<sub>x</sub>Mn<sub>1-x</sub>O<sub>3</sub> with Low Doping.**

IEEE International Magnetics Conference

Madrid, Spain 04. May - 08. May 2008

Oral

Wheeler, E.

**Single crystal neutron study of a spin-half square lattice antiferromagnet: CuSb<sub>2</sub>O<sub>6</sub>**

Meeting of the Triple Axis Group, ILL

Rencurel, France 13. Mar - 15. Mar 2008

## SE - Solar Energy Research

### SE1 - Silicon Photovoltaics

#### SE1.Cells

Poster

*Amkreutz, D.; Groth, C.; Ong, K.; Müller; J.; Didschuns, I.; Klimm, C.; Schmidt, M.*

#### **Electron beam crystallised thin film silicon solar cell on floatglass**

23rd European Photovoltaic Solar Energy Conference

Valencia, Spain 01. Sep - 15. Sep 2008

Invited Talk

*Angermann, H.*

#### **Wet-chemical passivation and electronic interface properties of silicon substrates,**

SSSI 2008, 6th International Conference on Solid State Surfaces and Interfaces

Smolenice, Slovakia 24. Nov - 27. Nov 2008

Poster

*Angermann, H.; Klimm, C.*

#### **Textured Silicon Substrates: Preparation and Characterization**

Tag der Chemie

HUB, Berlin Adlershof 23. Apr - 24. Apr 2008

Poster

*Angermann, H.; Rappich; J., Korte; L., Conrad; E., Schmidt; M.*

#### **Passivation of structured substrates for a-Si:H/c-Si hetero-junction solar cells: wet-chemical preparation and electronic interface properties**

E-MRS 2008 Spring meeting,

Strasbourg, France 26. May - 30. May 2008

Poster

*Angermann, H.; Schulze, T.; Conrad, E.; Rappich, J.; L. Korte, L.; Schmidt, M*

#### **Cleaning and passivation of structured Si substrates: wet-chemical preparation and interface properties of a-Si:H/c-Si hetero solar cells**

23 EU PVSEC

Valencia, Spain 01. Sep - 05. Sep 2008

Poster

*Becker, C.; Dogan, P.; Hänel, T.; Gorka, B.; Lee, K.Y.; Ruske, F.; Fenske, F.; Gall, S.; Rech, B.*

#### **Polycrystalline silicon thin-film solar cells on ZnO:Al coated glass**

MRS spring meeting 2008

San Francisco 23. Mar - 28. Mar 2008

Oral

*Becker, C.; Dogan, P.; Ruske, F.; Gorka, B.; Sánchez Vicens, A.; Conrad, E.; Gall, S.; Rech, B.; Hüpkes, J.*

#### **Solid phase crystallized silicon thin-film solar cells on temperature-stable ZnO:Al contact layers**

23rd EUPVSEC, Valencia

Valencia 01. Sep - 05. Sep 2008

Invited Talk

*Behrends, J.*

#### **Electrical Detection of Coherent Phosphorus Spin Quantum States**

4th Workshop on Carbon-based Quantum Computing

Freie Universität Berlin, 14.03.2008

**Oral**

*Behrends, J.; Boehme, C.; Schmidt, M.; Lips, K.*

**Observation of Spin Pair Generation with Pulsed Electrically Detected Magnetic Resonance**

DPG Frühjahrstagung 2008

Berlin 25. Feb - 29. Feb 2008

**Poster**

*Behrends, J.; Schnegg, A.; Haas, S.; Finger, F.; Rech, B.; Lips, K.*

**Spin-dependent Transport and Recombination in Thin-film Solar Cells: A Pulsed Electrically Detected Magnetic Resonance Study**

EUROMAR-2008 Magnetic Resonance Conference

St. Petersburg, Russland 06. Jul - 11. Jul 2008

**Poster**

*Behrends, J.; Schnegg, A.; Thomsen, E.A.; Samuel, I.D.W.; Pandey, A.K.; Lips, K.; Keeble, D.J.*

**Transport in Organic Solar Cells studied with Pulsed Electrically Detected Magnetic Resonance**

DPG Frühjahrstagung 2008

Berlin 25. Feb - 29. Feb 2008

**Oral**

*Dogan, P.; Fenske, F.; Lee, K.; Gorka, B.; Gall, S.; Rech, B.*

**Low Temperature Epitaxy of Si by E-beam Evaporation for Polycrystalline Si Thin Film Solar Cells**

INTERNATIONAL WORKSHOP ON ADVANCED MATERIALS AND DEVICES FOR PHOTOVOLTAIC

APPLICATIONS (NANOMAT 2008)

Metu, Ankara, Turkey 24. Apr - 25. Apr 2008

**Invited Talk**

*Fuhs, W.*

**Recombination in disordered materials**

Intern. Workshop on Advanced Materials for Optoelectronics and Related Physics

Inaoe, Puebla, Mexico 05. Oct - 11. Oct 2008

**Invited Talk**

*Fuhs, W.*

**Recombination in thin-film devices**

Intern. Workshop on Advanced Materials for Optoelectronics and Related Physics

Inaoe, Puebla, Mexico 05. Oct - 11. Oct 2008

**Invited Talk**

*Fuhs, W.*

**Basic concepts of photoconduction**

Intern. Workshop on Advanced Materials for Optoelectronics and Related Physics

Inaoe, Puebla, Mexico 05. Oct - 11. Oct 2008

**Invited Talk**

*Gall, S.*

**Photovoltaics - an overview on the current status**

International Seminar

Istanbul, Turkey 16. Sep - 20. Sep 2008

**Invited Talk**

*Gall, S.*

**Photovoltaik - Anwendungen**

International Seminar

Istanbul, Turkey 16. Sep - 20. Sep 2008

**Invited Talk**

*Gall, S.*

**Photovoltaics - an overview on the current status**

International Seminar "Renewable Energies and Efficient Use of Energy in Mining in Latin America?

Santiago, Chile 03. Apr - 07. Apr 2008

Invited Talk

Gall, S.

**Photovoltaik - Anwendungen**

International Seminar "Renewable Energies and Efficient Use of Energy in Mining in Latin America?  
Santiago, Chile 03. Apr - 07. Apr 2008

Oral

Gestel, D. V.; Dogan, P.; Gordon, I.; Bender, H.; Lee, K. Y.; Beaucarne, G.; Gall, S.; Poortmans, J.

**Investigation of intragrain defects in pc-Si layers obtained by aluminum-induced crystallization:  
comparison of layers made by low and high temperature epitaxy**

EMRS 2008 Spring Conference

Strasbourg, France 26. May - 30. May 2008

Poster

Gluba, M.; Nickel, N.H.

**A density functional theory investigation of manganese in zinc oxide**

5th international Workshop on ZnO and related materials

Ypsilanti, Michigan, USA 21. Sep - 24. Sep 2008

Oral

Gluba, M.A.; Nickel, N.H.

**ZnO:Mn valence configuration from the perspective of density functional theory**

72. Jahrestagung der DPG und DPG Frühjahrstagung des Arbeitskreises Festkörperphysik  
Berlin 25. Feb - 29. Feb 2008

Oral

Gorka, B.; Rau, B.; Dogan, P.; Becker, C.; Ruske, F.; Gall, S.; Rech, B.

**Influence of Hydrogen Plasma on the Defect Passivation of Polycrystalline Si Thin Film Solar Cells**

The Eleventh International Conference on Plasma Surface Engineering

Garmisch-Partenkirchen 15. Sep - 19. Sep 2008

Poster

Lee, K. Y.; Dogan, P.; Ruske, F.; Gorka, B.; Gall, S.; Rech, B.; Hüpkes, J.

**The properties of poly-Si films grown on ZnO:Al coated glass by aluminium-induced layer exchange  
(ALILE) process**

23rd European Photovoltaic Solar Energy Conference

Valencia, Spain 01. Sep - 05. Sep 2008

Invited Talk

Lips, K.

**Silicon Photovoltaics**

European Summer School on Photovoltaics and New Concepts of Quantum Solar Energy Conversion  
Hirschegg, Austria 14. Sep - 21. Sep 2008

Invited Talk

Lips, K.

**Electrical detection of pulsed EPR in silicon**

41st Annual International Meeting of the Electron Spin Resonance Group of the Royal Society of Chemistry,  
University College London, London, England,  
London, England, 06. Apr - 10. Apr 2008

Invited Talk

Lips, K.

**Magnetische Resonanz Spektroskopie mit Thz Strahlung**

Fokusseminar »Terahertz-Technologie und ihre Anwendungen«  
Groß Dölln, 13.11.2008

Invited Talk

*Lips, K.*

**Qubits in Silicon**

International Summer School on Physics at Nanoscale  
Skal, Tschechien 16. Jun - 21. Jun 2008

Invited Talk

*Lips, K.; Behrends, J.; Rech, B.; Brandt, M.; Stutzmann, M.; Astakhov, O.; Finger, F.; Bittl, R.; Holldack, K.; Frysoldt, C.; Neugebauer, J.; Schnegg, A.*

**Light-induced degradation and defects in amorphous and microcrystalline silicon - a new approach to an old problem with novel EPR techniques**

20th workshop on Quantum Solar Energy Conversion (Quantsol) Bad Gastein, Austria, 2.3- 7.3.2008  
Bad Gastein, Österreich 02. Mar - 07. Mar 2008

Oral

*Lips, K.; Behrends, J.; Tribollet, J.*

**Millisecond Spin Coherence for Fe<sup>3+</sup> in ZnO: A Promising Qubit.**

MRS Fall Konferenz  
Boston, USA 01. Nov - 05. Nov 2008

Oral

*Lips, K.; Schnegg, A.; Behrends, J.; Bittl, R.; Holldack, K.*

**Determination of Zero Field Splittings in Single Molecule Magnets: a Synchrotron Based Fourier Transform THz EPR Study.**

MRS Fall Meeting  
Boston, USA 01. Nov - 05. Nov 2008

Invited Talk

*Nickel, N. H.*

**Hydrogen-induced defect passivation and generation in laser crystallized silicon**

E-MRS Spring Meeting  
Strasbourg, France 26. May - 30. May 2008

Oral

*Nickel, N. H.*

**Hydrogen-induced passivation of grain-boundary defects in polycrystalline silicon**

MRS Fall Meeting  
Boston, USA 01. Dec - 05. Dec 2008

Oral

*Nickel, N. H., Scheller, L.-P.; Gluba, M. A.; Weizman, M.*

**Influence of hydrogen on the electrical transport in zinc oxide**

MRS Fall Meeting  
Boston, USA 01. Dec - 05. Dec 2008

Oral

*Nickel, N. H.; Gluba, M. A.; Neugebauer, J.*

**Modification of Si surfaces using CH<sub>3</sub> molecules**

MRS Spring Meeting  
San Francisco, USA 24. Mar - 28. Mar 2008

Poster

*Rau, B.; Weber, T.; Gorka, B.; Dogan, P.; Fenske, F.; Lee, K.Y.; Becker, C.; Gall, S.; Rech, B.*

**Development of a rapid thermal annealing process for polycrystalline silicon thin-film solar cells on glass**

E-MRS Spring Meeting 2008  
Strasbourg, Frankreich 26. May - 30. May 2008

Invited Talk

*Rech, B.*

**Thin film technology perspectives and challenges**

“Solar Summits” - Intern. Conf on Renewable and Efficient Energy Use  
Freiburg i. Breisgau 22. Oct - 24. Oct 2008

Invited Talk

*Rech, B.*

**Current challenges and novel approaches for thin-film silicon solar cells**

Photovoltaics PhD Workshop  
Ascona, Switzerland 16. Nov - 18. Nov 2008

Invited Talk

*Rech, B.*

**Amorphes Silizium, Mikrokristallines Silizium, Tandemzellen, Kristalline Dünnschichtzellen**

4. OTTI-Anwenderforum „Dünnschicht-Photovoltaik: Module, Systeme, Anwendungen“  
Kloster Banz, Bad Staffelstein 11. Feb - 12. Feb 2008

Invited Talk

*Rech, B.*

**Challenges and Perspectives of Thin-Film Photovoltaics**

11th International Conf. on Plasma Surface Engineering - PSE, Garmisch-Partenkirchen  
Garmisch-Partenkirchen 15. Sep - 15. Sep 2008

Invited Talk

*Rech, B. - Schlatmann, R.*

**Aufbau und Entwicklung eines Photovoltaik-Kompetenzzentrums mit Berliner und Brandenburger Institutionen und Unternehmen**

Innovationsgipfel Brandenburg/Berlin  
Potsdam 03. Nov - 03. Nov 2008

Invited Talk

*Rech, B.; Becker, Ch.; Rau, B.; Korte, L.; Gorka, B.; Fenske, F.; Gall, St.*

**Current challenges and novel approaches for thin-film silicon solar cells**

MRS Fall Meeting  
Boston, USA 01. Dec - 05. Dec 2008

Invited Talk

*Rech, B.; Schlatmann, R.*

**Dünnschicht und Nanotechnologie für Silizium - Dünnschichtsolarzellen**

1. NMN (Nano- und Materialinnovation Niedersachsen e.V.) Symposium  
Braunschweig 18. Nov - 18. Nov 2008

Invited Talk

*Ruske, F.*

**Magnetronputtern von TCO-Schichten**

OTTI-Fachtagung „Funktionalisierung von Glasoberflächen durch Beschichtung“  
Regensburg 15. Apr - 16. Apr 2008

Oral

*Ruske, F.; Lee, K.; Roczen, M.; Becker, C.; Hüpkes, J.; Gall, S.; Rech, B.*

**Effect of thermal treatment on carrier concentration and transport in zinc oxide**

2nd International Workshop on Transparent Conducting Oxides  
Heraklion, Crete, Greece 22. Oct - 26. Oct 2008

Oral

*Ruske, F.; Pflug, A.; Sittinger, V.; Szyszka, B.; Greiner, D.; Rech, B.*

**Optical modelling of free electron behaviour in highly doped ZnO films**

2nd International Symposium on Transparent Conductive Oxides  
Hersonissos, Crete, Greece 22. Oct - 26. Oct 2008

Oral

*Scheller, L.-P.; Weizman, M.; Nickel N. H.; Yan, B.*

**Grain boundary conduction in undoped laser-crystallized polycrystalline silicon-germanium thin films**  
DPG Frühjahrstagung des Arbeitskreises Festkörperphysik

Berlin 25. Feb - 29. Feb 2008

Invited Talk

*Scheller, L.-P.*

**Deep Level Transient Spectroscopy (DLTS)**

Heimbach-Workshop 2008 (TU Berlin, AG Prof. Kneissl)

Mansfeld, 15.09.2008

Invited Talk

*Scheller, L.-P.; Weizman, M.; Nickel, N.H.*

**Electric transport properties of laser-crystallized polycrystalline silicon-germanium thin films**

45. Treffen des Arbeitskreises Punktdefekte

TU Dresden, 03.04.2008

Invited Talk

*Schlatmann, R.*

**Overview: Thin film technologies & machinery**

PV industry Munic

München 10. Jun - 12. Jun 2008

Invited Talk

*Schnegg, A.; Behrends, J.; Lips, K. ; Bittl, R.; Bill, E.; Holldack, K.*

**Fourier Transform THz EPR on single molecular magnets.**

31th International EPR Symposium Preliminary Program

Breckenridge, USA 27. Jul - 31. Jul 2008

Poster

*Schnegg, A.; Behrends, J.; Lips, K. ; Bittl, R.; Bill, E.; Holldack, K.*

**Determination of Zero Field Splittings in Single Molecule Magnets: a Synchrotron Based Fourier Transform THz EPR Study**

The 27th BESSY Users' Meeting

Berlin, Deutschland 04. Dec - 05. Dec 2008

Oral

*Schnegg, A.; Behrends, J.; Lips, K. ; Bittl, R.; Holldack, K.*

**Determination of Zero Field Splittings in Single Molecule Magnets: a Synchrotron Based Fourier Transform THz EPR Study**

ICMM 2008

Florenz, Italien 21. Sep - 24. Sep 2008

Oral

*Schnegg, A.; Behrends, J.; Lips, K. ; Bittl, R.; Holldack, K.*

**FOURIER TRANSFORM THZ EPR ON SINGLE MOLECULAR MAGNETS**

EUROMAR 2008

St. Petersburg, Russland 06. Jul - 11. Jul 2008

Oral

*Sievert, W.; Zimmermann, K-U.; Hartmann, B.; Klimm, C.; Jacob; K. ; Angermann, H;*

**Wet-chemical passivation and surface characterization of structured silicon substrates**

Symposium on Ultra Clean Processing of Semiconductor Surfaces, UCPSS 2008

Bruges (Belgium) 21. Sep - 24. Sep 2008

Oral

*Weizman, M.; Scheller, L.-P.; Nickel, N. H.; Yan, B.*

**Electrical and optical properties of laser-crystallized polycrystalline silicon-germanium thin films**

72. DPG-Frühjahrstagung

Berlin 25. Feb - 29. Feb 2008

**Poster**

*Yang, F.; Hunger, R.; Roodenko K.; Hinrichs K.; Rademann K.; Rappich J.*

**Vibrational and electronic properties of methylated silicon (111) surfaces in air**

DPG-Frühjahrstagung Berlin  
Berlin 25. Feb - 29. Feb 2008

**Poster**

*Yang, F.; Hunger, R.; Roodenko K.; Hinrichs K.; Rademann K.; Rappich J.*

**Vibrational and electronic properties of silicon (111) surfaces electrochemically modified by small organic molecules**

Organic Microelectronics and Optoelectronics Workshop IV  
San Francisco 07. Jul - 10. Jul 2008

**Oral**

*van de Sanden, M.C.M.; Dingemans, G.; van den Donker, M.N.; Hrunski, D.; Gordijn, A.; Finger, F.; Rech, B.; Kessels, W.M.M.*

**The Atomic Hydrogen flux to Silicon Growth flux ratio during Micro-crystalline Silicon Solar Cell deposition**

MRS Spring Meeting  
San Francisco, USA 24. Mar - 28. Mar 2008

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**SE1.Hetero****Invited Talk**

*Angermann, H.*

**Naß-chemische Konditionierung von Siliziumsubstraten: Optimierung von optischen und elektronischen Grenzflächeneigenschaften**

Workshop: Photovoltaics meets Microtechnology  
CiS Forschungsinstitut für Mikrosensorik und Photovoltaik GmbH Erfurt, 29. Oct - 30. Oct 2008

**Poster**

*Aureau, D. ; Rappich, J. ; Chazalviel, J.-N. ; Henry de Villeneuve, C. ; Ozanam, F. ; Allongue, P.*

**Electronic properties of Si(111)/alkyl monolayer interfaces**

The 22nd Conference of the Condensed Matter Div. of the European Physical Society  
Rom- Italy 25. Aug - 29. Aug 2008

**Poster**

*Didschuns, I.; Korte, L.; Bauch, B.; Conrad, E.; Schmidt, M.*

**Effective lifetime investigation of a-Si/c-Si heterojunctions**

E-MRS Spring Meeting  
Strasbourg, France 26. May - 30. May 2008

**Invited Talk**

*Hagemann, V.; Cumberbatch, E.; Fellner, K.A.; Gasser, I.; Glitzky, A.; Mielke, A.; Polzehl, J.; Racec, P.N.; Rathsfeld, A.; Pomplun, J.; Schmidt, F.; Sontheimer, T.; Stangl, R.*

**Light trapping in thin film silicon solar cells**

Workshop: Mathematics in industry,  
Berlin, 06.10.2008

**Oral**

*Haschke, J.*

**Rückseitenkontakteierte amorph/kristalline Silizium Heterosolarzellen**

SiliconFOREST 2008

Falkau 25. Feb - 27. Feb 2008

**Poster**

*Haschke, J.; Stangl, R.; Bivour, M.; Conrad, E.; Korte, L.; Schmidt, M.; Lips, K.; Rech, B.*

**New rear contacted amorphous/crystalline silicon heterojunction solar cells**

23rd European Photovoltaic Solar Energy Conference, Valencia, Spain, Sept. 2008  
Valencia, Spain 01. Sep - 05. Sep 2008

Oral

*Hinrichs, K.; Silaghi, S.; Intelmann, C.M.; Roodenko, K.; Esser, N.; Rappich, J.*

**In-situ monitoring of electrochemically prepared organic films**

DPG-Frühjahrstagung

Berlin 25. Mar - 29. Mar 2008

Oral

*Intelmann C.M., Sysritski V., Hinrichs K., Rappich J.*

**In-Situ Investigations of Silicon/Polyppyrrole Interfaces by Pulsed Photoluminescence and IR**

**Spectroscopic Ellipsometry**

GdCh, Rostock , 10. Frühjahrssymposium

Rostock 27. Mar - 29. Mar 2008

Oral

*Intelmann, C.M.; Syritski, V.; Hinrichs, K.; Rappich, J.*

**In-Situ Investigations of Si/Polyppyrrole Interfaces by Pulsed Photoluminescence and IR**

**Spectroscopic Ellipsometry**

DPG-Frühjahrstagung

Berlin 25. Mar - 29. Mar 2008

Oral

*Köhler, R.; Schöpke, A.; Shokhovets, S.; Gobsch, G.*

**The influence of dc sputtered nO:Al on ZnO:Al/a-Si:H/c-Si heterostructures**

72. DPG-Frühjahrstagung

Berlin 25. Feb - 29. Feb 2008

Poster

*Korte, L.; Bastide, S.; Lévy-Clément, C.*

**Fast measurements of effective optical reflectivity using a conventional flatbed scanner**

23rd European Photovoltaic Solar Energy Conference

Valencia, Spain 01. Sep - 05. Sep 2008

Oral

*Korte, L.; Laades, A.; Lauer, K.; Stangl, R.; Schaffarzik, D.; Schmidt, M.*

**Surface photovoltage investigation of recombination at the a-Si/c-Si heterojunction**

E-MRS Spring Meeting 2008

Strasbourg, France 26. May - 30. May 2008

Oral

*Schmidt, M., Rölver, R., Sixtensson, D., Spangenberg, B., Stegemann, B.*

**Photoelectrical properties of Si/SiO<sub>2</sub> quantum well structures**

E-MRS 2008

Strassbourg, France 26. May - 30. May 2008

Oral

*Sixtensson, D.; Stegemann, B.; Schmidt, M.*

**Influence of gap state defect passivation on transport properties in SiO<sub>2</sub>/Si/SiO<sub>2</sub> quantum layers**

72. Jahrestagung der Deutschen Physikalischen Gesellschaft (DPG)

Berlin 25. Feb - 29. Feb 2008

Invited Talk

*Stangl, R.*

**Principles of solar cell simulation**

European Summer School on Photovoltaics and New Concepts of Quantum Solar Energy Conversion  
Hirschegg, Österreich 14. Sep - 21. Sep 2008

Invited Talk

*Stangl, R.; Haschke, J.; Bivour, M.*

**Rear Contacted Silicon Heterojunction Solar Cells, -processing, simulation, characterisation-**

Workshop am Weierstrass Institut für angewandte Analysis und Stochastik, WIAS

Berlin 05. Nov - 05. Nov 2008

**Invited Talk**

*Stangl, R.; Haschke, J.; Bivour, M.; Schmidt, M.; Lips, K.; Rech, B.*  
**planar rear emitter back contact a-Si:H/c-Si heterojunction solar cells**  
33rd IEEE Photovoltaik Specialists Conference, San Diego, USA, May 2008  
San Diego, USA 11. May - 16. May 2008

**Poster**

*Stegemann, B., Lussky, Sixtensson, D., Schoepke, A., Schmidt, M.*  
**Silicon Quantum Dot Formation by Thermal Decomposition of SiO<sub>x</sub> Layers under UHV Conditions**  
Tag der Chemie und Innovationskongress Chemie und Biotechnologie  
WISTA Berlin-Adlershof 23. Apr - 23. Apr 2008

**Invited Talk**

*Stegemann, B., Lussky, T., Schöpke, A., Schmidt, M.*  
**High-Efficiency Concepts for Photovoltaics based on Silicon Quantum Structures**  
Workshop: Photovoltaics meets Microtechnology  
CiS Forschungsinstitut für Mikrosensorik und Photovoltaik GmbH Erfurt 29. Oct - 30. Oct 2008

**Invited Talk**

*Stegemann, B., Lussky, T., Schöpke, A., Schmidt, M.*  
**Silicon Quantum Structures for Photovoltaics**  
Technoscan Workshop: New Materials, Technologies and Device Structures for Photovoltaics  
Energy Research Centre of the Netherlands (ECN), Petten, Netherland 28. Oct - 28. Oct 2008

**Oral**

*Stegemann, B., Sixtensson, D., Lussky, T., Schoepke, A., Schmidt, M.*  
**Si/SiO<sub>2</sub> Quantum Well and Quantum Dot Structures: Atomic-Scale Preparation and Characterization with Respect to Photovoltaic Application**  
23rd European Photovoltaic Solar Energy Conference  
Valencia, Spain 01. Sep - 05. Sep 2008

**Poster**

*Stegemann, B.; Lussky, T.; Schoepke, A.; Schmidt, M.*  
**Photoconductivity in Si/SiO<sub>2</sub> Single Quantum Wells and Quantum Dot Layers**  
Solar Energy: New Materials and Nanostructured Devices for High Efficiency  
Stanford University, Palo Alto, USA 24. Jun - 25. Jun 2008

**Poster**

*Stegemann, B.; Lußky, T.; Sixtensson, D.; Schoepke, A.; Schmidt, M.*  
**Kinetics of Si quantum dot formation in thermally deposited SiO<sub>x</sub> layers upon vacuum annealing**  
72. Jahrestagung der DPG  
Berlin 25. Feb - 29. Feb 2008

**Oral**

*Stegemann, B.; Sixtensson, D.; Schmidt, M.*  
**Influence of interface passivation on the photoelectric properties of Si/SiO<sub>2</sub> nanostructures**  
20th Aniversary Workshop on Quantum Solar Energy Conversion (QUANTSOL 2008 Winter workshop)  
Bad Gastein, Salzburg, Österreich 02. Mar - 07. Mar 2008

**Oral**

*Stegemann, B.; Sixtensson, D.; Schmidt, M.*  
**Passivation of interfacial gap state defects at UHV prepared ultrathin SiO<sub>2</sub> layers on Si(111), Si(110), and Si(100)**  
E-MRS 2008  
Strassbourg 26. May - 30. May 2008

**Oral**

*Suckow, S.; Kittler, M.; Seifert, W.; Arguirov, T.; Schmidt, M.; Stegemann, B.; Angermann, H.*  
**Preparation and tunneling characteristics of MOS structures for Si-based IR light emitters**  
72. Jahrestagung der Deutschen Physikalischen Gesellschaft (DPG)  
Berlin 02. Mar - 07. Mar 2008

**Oral**

*Suwito, D.; Roth, T.; Pysch, D.; Korte, L.; Richter, A.; Janz, S.; Glunz, S.W.*

**Detailed Study on the Passivation Mechanism of a-SiC<sub>1-x</sub> for the Solar Cell Rear Side**

23rd European Photovoltaic Solar Energy Conference

Valencia, Spain 01. Sep - 05. Sep 2008

**Poster**

*Yang F., Hunger R., Roodenko K., Hinrichs K., Rademann K., Intelmann C.M., Rappich J.*

**Elektronische und schwingungsspektroskopische Eigenschaften methylierter Si(111)-Oberflächen**

Tag der Chemie an der HUB, 2008

Berlin 23. Apr - 24. Apr 2008

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**SE1.Others**

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**Oral**

*Zhang, X.; Sun, G.; Intelmann, C.M.; Kroening, S.; Rosu, D.M.; Hinrichs, K.; Esser, N.; Volkmer, R.; Nickel, N.H.; Janietz, S.; Rappich, J.*

**Functionalisation of Au and Si(111) surfaces by benzoic acid**

The 22nd Conference of the Condensed Matter Div. of the European Physical Society

Rom, Italien 25. Aug - 29. Aug 2008

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**SE2.Integration**

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**Oral**

*Greiner, D.; Papathanasiou, N.; Pflug, A.; Ruske, F.; Klenk, R.*

**Influence of damp heat on the optical and electrical properties of Al-doped zinc oxide (ZAO)**

EMRS Spring Meeting

Strasbourg, France 26. May - 30. May 2008

**Oral**

*Köble, C.; Greiner, D.; Klaer, J.; Klenk, R.; Meeder, A., Ruske, F.*

**DC reactive sputtering of aluminium doped zinc oxide films for solar modules controlled by target voltage**

2nd International Symposium on Transparent Conductive Oxides

Kreta - Griechenland 22. Oct - 26. Oct 2008

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**SE3.Control**

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**Poster**

*Abou-Ras, D.; Kaufmann, C.A.; Schöpke, A.; Schorr, S.; Stephan, C.; Eicke, A.; Döbeli, M.; Gade, B.; Nunney, T.; Hoffmann, V.; Klemm, D.; Efimova, V.; Bergmaier, A.; Dollinger, G.*

**Elemental distribution profiles across Cu(In,Ga)Se<sub>2</sub> solar-cell absorbers acquired by various techniques**

14th European Microscopy Congress

Aachen, Germany 01. Sep - 05. Sep 2008

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**SE2 - Heterogeneous Material Systems**

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**SE1.Cells**

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**Oral**

*Ruske, F.; Pflug, A.; Sittinger, V.; Szyszka, B.; Greiner, D.; Rech, B.*

**Optical modelling of free electron behaviour in highly doped ZnO films**

2nd International Symposium on Transparent Conductive Oxides

Hersonissos, Crete, Greece 22. Oct - 26. Oct 2008

## SE2.Analytics

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Oral

*P. Pistor, N. Allsop, W. Braun, R. Caballero, Ch.-H. Fischer, M. Glogoi, A. Grimm, I. Lauermann, S. Lehmann, H. Möning, B. Johnson, T. Kropp, R. Klenk, F. Schäfer, S. Schorr and A. Weber*

**Cu in In<sub>2</sub>S<sub>3</sub>: interdiffusion phenomena in thin films analysed by high kinetic energy x-ray photo-electron spectroscopy**

16th ICTMC in Berlin September 2008

Berlin 15. Sep - 19. Sep 2008

Oral

*F. Streicher, S. Sadewasser, T. Enzenhofer, H.-W. Schock, M.Ch. Lux-Steiner*

**Locally resolved surface photo voltage spectroscopy on Zn-doped CuInS<sub>2</sub> polycrystalline thin films**

European Materials Research Society (EMRS) spring meeting

Strasbourg, France 26. May - 30. May 2008

Poster

*Grimm, A.; Klaer, J.; Klenk, R.; Lauermann, I.; Neisser, A.; Meeder, A.; Voigt, St.*

**An alternative window layer concept for chalcopyrite-based thin film solar cells**

2nd International Symposium on Transparent Conductive Oxides

Crete, Greece 22. Oct - 26. Oct 2008

Invited Talk

*H. Möning, F. Streicher, R. Caballero, M. Ch. Lux-Steiner and S. Sadewasser*

**Scanning tunneling spectroscopy on the chalcopyrite solar cell absorber material Cu(In,Ga)Se<sub>2</sub>**

International Conference on Nanoscience + Technology (ICN+T)

Keystone, CO, USA 20. Jul - 25. Jul 2008

Poster

*Lauermann, I. ; Möning, H. ; Grimm, A. ; Johnson, B. ; Kropp, T. ; Kaufmann, C.; Lux-Steiner, M. Ch.; Fischer, Ch.-H. Gorgoi, M.; Schäfers, F.; Braun, W.*

**Depth profiling of elemental gradients in the chalcopyrite near-surface by high-energy photoelectron spectroscopy and angle-resolved x-ray emission spectroscopy**

The E-MRS 2008 Spring Meeting

Straßburg 26. May - 30. May 2008

Poster

*Möning, H.; Caballero, R.; Kaufmann, C.A.; Grimm, A.; Johnson, B.; Kropp, T.; Lux-Steiner, M. Ch.; Fischer, Ch.-H.; Lauermann, I.*

**Non-destructive depth profiling of preparation-induced gradients in Cu(Ga,In)Se<sub>2</sub> by angle dependent x-ray emission spectroscopy**

International Conference of Ternary and Multinary Compounds, ICTMC-16

Berlin 15. Sep - 19. Sep 2008

Invited Talk

*Nürnberg, R.; Allsop, N.; Klaer, J.; Wünsch, F.; Wanderka, N.; Bertram, F.; Christen, J.; Lux-Steiner, M. Ch.; Schedel-Niedrig, Th.*

**Point contacts in passivation layers for an enhanced performance of thin film solar cell based on wider-band gap chalcopyrites**

Quantsol 2008 Winter Workshop

Bad Gastein, Austria 03. Mar - 08. Mar 2008

Invited Talk

*Sadewasser, S.*

**Investigación e industria fotovoltaica en Alemania**

II. Simposio Internacional en Fuentes Alternativas de Energía y Calidad Energética - IEEE 2008

Barranquilla, Colombia 12. Mar - 14. Mar 2008

## SE2.Chemistry

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Invited Talk

*Fischer, C.-H.*

### **Buffer layer deposition by spray techniques**

Athlet general assembly

Zürich/CH 11. Jan - 12. Jan 2008

Invited Talk

*Sáez-Araoz, R.*

### **High performance thin film Cu-chalcopyrite PV-devices with a Zn(S,O) buffer layer**

23rd EU-PVSEC, September 2008, Valencia, Spain

Valencia, Spain 01. Sep - 05. Sep 2008

## SE2.Concepts

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Oral

*Belaïdi, A.; Kieven, D.; Tornow, J.; Katerski, A.; Schwarzbürg, K.; Dittrich, Th.; Krunks, M.; Lux-Steiner, M. Ch*  
**ZnO-nanorod arrays for solar cells with ultra thin In<sub>2</sub>S<sub>3</sub> and CuInS<sub>2</sub>**

17 th International Conference on Photochemical Conversion and Storage of Solar Energy

Sydney, Australia 27. Jul - 01. Aug 2008

## SE2.Contacts

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Poster

*Kaigawa, R.; Morimoto, A.; Hunahashi, K.; Hujie, R.; Wada, T.; Klenk, R.*

### **Preparation of Wide gap Cu(In,Ga)S<sub>2</sub> films on ZnO coated substrates**

EMRS Spring Meeting

Strasbourg, France 26. May - 30. May 2008

## SE2.Integration

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Oral

*Greiner, D.; Papathanasiou, N.; Pflug, A.; Ruske, F.; Klenk, R.*

### **Influence of damp heat on the optical and electrical properties of Al-doped zinc oxide (ZAO)**

EMRS Spring Meeting

Strasbourg, France 26. May - 30. May 2008

Oral

*Köble, C.; Greiner, D.; Klaer, J.; Klenk, R.; Meeder, A., Ruske, F.*

### **DC reactive sputtering of aluminium doped zinc oxide films for solar modules controlled by target voltage**

2nd International Symposium on Transparent Conductive Oxides

Kreta - Griechenland 22. Oct - 26. Oct 2008

## SE2.Others

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Invited Talk

*Lux-Steiner, M.Ch.*

### **Neue Entwicklungen bei der Dünnschicht-Photovoltaik**

Laserseminar der ETH Zürich, Schweiz

ETH Zürich, Schweiz 15. Dec - 15. Dec 2008

**Poster**

Mainz, R.; Streicher, F.; Abou-Ras, D.; Sadewasser, S.; Klenk, R.; Lux-Steiner, M. Ch.

**Combined analysis of spatially resolved electronic structure and composition on a cross-section of a thin film Cu(In<sub>1-x</sub>Ga<sub>x</sub>)S<sub>2</sub> solar cell**

ICTMC-16

Berlin 15. Sep - 19. Sep 2008

**Oral**

Schmid, M.; Krc, J.; Klenk, R.; Lux-Steiner, M.-Ch.; Topic, M.

**Optical optimization of a thin-film wide-bandgap CuGaSe<sub>2</sub> solar cell for tandem applications**

MRS Fall Meeting

Boston 01. Dec - 05. Dec 2008

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**SE2.Semico****Poster**

Kaigawa, R.; Morimoto, A.; Funahashi, K.; Wada, T.; Merdes, S.; Klenk, R.

**Cu(In,Ga)S<sub>2</sub> films prepared by two-stage evaporation on ZnO coated substrates**

ICTMC-16, Berlin

Berlin, Germany 15. Sep - 19. Sep 2008

**Poster**

Kaigawa, R.; Uesugi, T.; Yoshida, T.; Klenk, R.

**Instantaneous preparation of CuInSe<sub>2</sub> films in a non-vacuum process using spot welding**

EMRS Spring Meeting

Strasbourg, France 26. May - 30. May 2008

**Invited Talk**

Klenk, R.

**Chalcopyrite-based solar modules**

Critical materials issues in photovoltaics: summer school jointly organised by the graduate school MAINZ/MACTOR and CECAM

Lausanne, Switzerland 31. May - 01. Jun 2008

**Invited Talk**

Klenk, R.

**Material Properties and Design of Chalcopyrite-Based Solar Cells and Modules**

CECAM Workshop: Critical materials issues in photovoltaics: searching for solutions via theory and simulations

Lausanne 02. Jun - 04. Jun 2008

**Poster**

Merdes, S.; Kaigawa, R.; Klaer, J.; Klenk, R.; Mainz, R.; Meeder, A.; Papathanasiou, N.

**Increased open circuit voltage in Cu(In,Ga)S<sub>2</sub> based solar cells prepared by rapid thermal processing of metal precursors**

23rd European Photovoltaic Solar Energy Conf.

Valencia, Spain 01. Sep - 05. Sep 2008

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**SE3.Baseline****Oral**

Kaufmann, C.A.; Caballero, R.; Unold, T.; Mönig H.; Hesse, R.; Klenk, R.; Schock, H.-W.

**Low temperature growth of Cu(In,Ga)Se<sub>2</sub>**

23rd European Photovoltaic Solar Energy Conference and Exhibition

Valencia, Spanien 01. Sep - 05. Sep 2008

## SE4.Cells

Invited Talk

*Kieven, D; Dittrich, T; Belaidi, A; Tornow, J; Schwarzburg, K; Allsop, N; Lux-Steiner, M*

**Charge separation and recombination in photovoltaic cells based on ZnO-nanorod arrays**

E-MRS 2008 Spring Meeting

Strasbourg, France 26. May - 30. May 2008

Poster

*Schwarzburg,K; Belaidi,A; Kieven,D; Tornow,J;Dittrich,T*

**ZnO-nanorod solar cells with ultra thin In<sub>2</sub>S<sub>3</sub> and CuInS<sub>2</sub> absorbers**

23rd European Photovoltaic Solar Energy Conversion Conference and Exhibition

Valencia, Spain 01. Sep - 05. Sep 2008

## SF8.Structures

Poster

*Doka, S.; Rusu, M.; Koteski, V.; Hofstetter, J.; Arushanov, E.; Mahnke, H.-E.; Schedel-Niedrig, Th.; M. Ch. Lux-Steiner, M.Ch.*

**Local Atomic Structure of Germanium Impurities in Wide-band Gap CuGaSe<sub>2</sub> Chalcopyrite**

EMRS Spring 2008, Symposium L: Thin film chalcogenide photovoltaic materials,

Strasbourg 26. May - 30. May 2008

## SE3 - Technology

### SE2.Analytics

Oral

*F. Streicher, S. Sadewasser, T. Enzenhofer, H.-W. Schock, M.Ch. Lux-Steiner*

**Locally resolved surface photo voltage spectroscopy on Zn-doped CuInS<sub>2</sub> polycrystalline thin films**

European Materials Research Society (EMRS) spring meeting

Strasbourg, France 26. May - 30. May 2008

Poster

*Grimm, A.; Klaer, J.; Klenk, R.; Lauermann, I.; Neisser, A.; Meeder, A.; Voigt, St.*

**An alternative window layer concept for chalcopyrite-based thin film solar cells**

2nd International Symposium on Transparent Conductive Oxides

Crete, Greece 22. Oct - 26. Oct 2008

Invited Talk

*H. Möning, F. Streicher, R. Caballero, M. Ch. Lux-Steiner and S. Sadewasser*

**Scanning tunneling spectroscopy on the chalcopyrite solar cell absorber material Cu(In,Ga)Se<sub>2</sub>**

International Conference on Nanoscience + Technology (ICN+T)

Keystone, CO, USA 20. Jul - 25. Jul 2008

Poster

*Lauermann, I. ; Möning, H. ; Grimm, A. ; Johnson, B. ; Kropp, T. ; Kaufmann, C. ; Lux-Steiner, M. Ch. ; Fischer, Ch.-H.Gorgoi, M. ; Schäfers, F. ; Braun, W.*

**Depth profiling of elemental gradients in the chalcopyrite near-surface by high-energy photoelectron spectroscopy and angle-resolved x-ray emission spectroscopy**

The E-MRS 2008 Spring Meeting

Straßburg 26. May - 30. May 2008

**Poster**

Mönig, H.; Caballero, R.; Kaufmann, C.A.; Grimm, A.; Johnson, B.; Kropp, T.; Lux-Steiner, M. Ch.; Fischer, Ch.-H.; Lauermann, I.

**Non-destructive depth profiling of preparation-induced gradients in Cu(Ga,In)Se<sub>2</sub> by angle dependent x-ray emission spectroscopy**

International Conference of Ternary and Multinary Compounds, ICTMC-16

Berlin 15. Sep - 19. Sep 2008

**Invited Talk**

Nürnberg, R.; Allsop, N.; Klaer, J.; Wünsch, F.; Wanderka, N.; Bertram, F.; Christen, J.; Lux-Steiner, M. Ch.; Schedel-Niedrig, Th.

**Point contacts in passivation layers for an enhanced performance of thin film solar cell based on wider-band gap chalcopyrites**

Quantsol 2008 Winter Workshop

Bad Gastein, Austria 03. Mar - 08. Mar 2008

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**SE2.Integration****Oral**

Köble, C.; Greiner, D.; Klaer, J.; Klenk, R.; Meeder, A., Ruske, F.

**DC reactive sputtering of aluminium doped zinc oxide films for solar modules controlled by target voltage**

2nd International Symposium on Transparent Conductive Oxides

Kreta - Griechenland 22. Oct - 26. Oct 2008

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**SE2.Others****Poster**

Mainz, R.; Streicher, F.; Abou-Ras, D.; Sadewasser, S.; Klenk, R.; Lux-Steiner, M. Ch.

**Combined analysis of spatially resolved electronic structure and composition on a cross-section of a thin film Cu(In<sub>1-x</sub>Ga<sub>x</sub>)S<sub>2</sub> solar cell**

ICTMC-16

Berlin 15. Sep - 19. Sep 2008

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**SE2.Semico****Poster**

Merdes, S.; Kaigawa, R.; Klaer, J.; Klenk, R.; Mainz, R.; Meeder, A.; Papathanasiou, N.

**Increased open circuit voltage in Cu(In,Ga)S<sub>2</sub> based solar cells prepared by rapid thermal processing of metal precursors**

23rd European Photovoltaic Solar Energy Conf.

Valencia, Spain 01. Sep - 05. Sep 2008

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**SE3.Baseline****Oral**

Kaufmann, C.A.; Caballero, R.; Unold, T.; Mönig H.; Hesse, R.; Klenk, R.; Schock, H.-W.

**Low temperature growth of Cu(In,Ga)Se<sub>2</sub>**

23rd European Photovoltaic Solar Energy Conference and Exhibition

Valencia, Spanien 01. Sep - 05. Sep 2008

**Oral**

R. Caballero, C.A. Kaufmann, T. Eisenbarth, M. Cancela, R. Hesse, T. Unold, A. Eicke, R. Klenk, H.W. Schock

**The Influence of Na on low Temperature growth of CIGS thin films solar cells on polyimide.**

E-MRS Spring Meeting 2008

Strasbourg 26. May - 30. May 2008

**Oral**

*Raquel Caballero, Christian Kaufmann, Tobias Eisenbarth, Thomas Unold, Susan Schorr, Raik Hesse, Reiner Klenk and Hans-Werner Schock*

**The effect of NaF precursors on low temperature growth of CIGS thin film solar cells on polyimide substrates**

16th International Conference on Ternary and Multinary Compounds  
Berlin 15. Sep - 19. Sep 2008

**Invited Talk**

*Schock, H.-W.*

**State of the Art Thin Film Compounds**

1st EPIA International Thin Film Conference, European Photovoltaic Industry Association  
München 13. Nov - 13. Nov 2008

**Invited Talk**

*Schock, H.-W.*

**Highly Efficient Thin Layer Solar Cells**

WAC World Academy of Ceramics - Forum 2008, "Ceramic Materials in Energy Systems for a sustainable development"  
Chianciano Terme, Italy 05. Jul - 08. Jul 2008

**Invited Talk**

*Schock, H.-W.*

**Overview on status and perspectives of CIGS thin film solar cells**

Journées Annuelles de la Société Francaise de Métallurgie et de Matériaux, Paris  
Paris 04. Jun - 06. Jun 2008

**Invited Talk**

*Schock, H.-W.*

**Second Generation : Thin - Film Technologies , Research Focus in Germany**

German-French Symposium on Solar Energy Technologies for Power Production, dena Deutsche Energie-Agentur  
Berlin 08. Dec - 08. Dec 2008

**Invited Talk**

*Schock, H.-W.*

**Overview on status and perspectives of CIGS thin film solar cells**

JA 2008  
Paris 04. Jun - 05. Jun 2008

**Invited Talk**

*Schock, H.-W.*

**Highly Efficient Thin-Layer Solar Cells**

Forum 2008 World Academy of Ceramics  
Chianciano Terme, Italy 06. Jul - 08. Jul 2008

**Invited Talk**

*Schock, H.-W.*

**CIS - Solarzellen - Vom Labor zur Produktion**

1. Nano und Material Symposium Niedersachsen  
Braunschweig 17. Nov - 18. Nov 2008

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**SE3.Control**

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**Oral**

*Abou-Ras, D.; Bundesmann, J.; Nichterwitz, M.; Schmidt, S.; Unold, T.; Schock, H.-W.*

**Electron microscopy studies at heterojunctions and grain boundaries in chalcopyrite-type thin film solar cells**

Modelling and Characterisation of Interfaces, Institute of Physics  
London, UK 27. Jun - 27. Jun 2008

## Poster

Abou-Ras, D.; Contreras, M.A.; Noufi, R.; Schock, H.-W.

**Impact of the Se evaporation rate on the microstructure and texture of Cu(In,Ga)Se<sub>2</sub> thin films for solar cells**

E-MRS 2008 Spring Meeting

Strasbourg, France 26. May - 30. May 2008

## Oral

Abou-Ras, D.; Jahn, U.; Bundesmann, J.; Caballero, R.; Kaufmann, C.A.; Klaer, J.; Nichterwitz, M.; Unold, T.; Schock, H.-W.

**Scanning electron microscopy techniques for cross-sectional analyses of thin-film solar cells**

14th European Microscopy Congress

Aachen, Germany 01. Sep - 05. Sep 2008

## Poster

Abou-Ras, D.; Kaufmann, C.A.; Schöpke, A.; Schorr, S.; Stephan, C.; Eicke, A.; Döbeli, M.; Gade, B.; Nunney, T.; Hoffmann, V.; Klemm, D.; Efimova, V.; Bergmaier, A.; Dollinger, G.

**Elemental distribution profiles across Cu(In,Ga)Se<sub>2</sub> solar-cell absorbers acquired by various techniques**

14th European Microscopy Congress

Aachen, Germany 01. Sep - 05. Sep 2008

## Poster

Abou-Ras, D.; Kaufmann, C.A.; Schöpke, A.; Schorr, S.; Stephan, C.; Eicke, A.; Döbeli, M.; Gade, B.; Nunney, T.; Hoffmann, V.; Klemm, D.; Efimova, V.; Bergmaier, A.; Dollinger, G.

**Comparison of elemental distribution profiles across Cu(In,Ga)Se<sub>2</sub> solar-cell absorbers acquired by various techniques**

Microscopy&Microanalysis 2008

Albuquerque, New Mexico, U.S.A. 03. Aug - 07. Aug 2008

## Oral

Abou-Ras, D.; Koch, C.T.; Küstner, V.; van Aken, P.A.; Jahn, U.; Contreras, M.A.; Caballero, R.; Kaufmann, C.A.; Scheer, R.; Unold, T.; Schock, H.-W.

**Grain-boundary types in chalcopyrite-type thin films and their correlations with film texture and electrical properties**

E-MRS 2008 Spring Meeting

Strasbourg, France 26. May - 30. May 2008

## Oral

Abou-Ras, D.; Pantleon, K.

**Impact of twinning on the crystallographic texture of chalcopyrite-type thin films for solar cells**

EBSD Meeting, Royal Microscopy Society

Sheffield, United Kingdom 31. Mar - 01. Apr 2008

## Poster

Nichterwitz, M.; Abou-Ras, D.; Bundesmann, J.; Scheer, R.; Schock, H.W.

**Correlation of grain structure and electrical properties of Cu(In,Ga)Se<sub>2</sub> thin-film solar cells**

DPG-Frühjahrstagung des Arbeitskreises Festkörperphysik

Berlin 25. Feb - 29. Feb 2008

## Poster

Nichterwitz, M.; Abou-Ras, D.; Bundesmann, J.; Scheer, R.; Unold, T.; Schock, H.W.

**Influence of grain boundaries on current collection in Cu(In,Ga)Se<sub>2</sub> thin-film solar cells**

EMRS Spring Meeting

Straßburg 26. May - 30. May 2008

## Poster

Volubujeva, O.; Abou-Ras, D.; Grossberg, M.; Raudoja, J.; Mellikov, E.; Traksmaa, R.

**SELENIZATION OF CO-SPUTTERED CU-IN ALLOY FILMS**

33rd IEEE Photovoltaic Specialists Conference

San Diego, U.S.A. 12. May - 16. May 2008

## SE3.Others

Poster

*Schubert, B.-A.; Kötschau, I.M.; Cinque, S.; Schock, H.-W.; Meran, G.*

**An Economic Approach to Evaluate the Range of Coverage of Indium and its Impact on Indium Based Thin-Film Solar Cells - Recent Results of Cu<sub>2</sub>ZnSnS<sub>4</sub> (CZTS) Based Solar Cells**

23rd European Photovoltaic Solar Energy Conference and Exhibition

Valencia, Spain 01. Sep - 05. Sep 2008

Poster

*T. Eisenbarth, T. Unold, R. Caballero, C.A. Kaufmann and H.-W. Schock*

**ORIGIN OF DEFECTS IN CuIn<sub>1-x</sub>GaxSe<sub>2</sub> SOLAR CELLS WITH VARIED Ga CONTENT**

E-MRS Spring Meeting 2008 Strasbourg

Strasbourg 26. May - 30. May 2008

Poster

*T.Eisenbarth, T.Unold, C.A.Kaufmann, R.Caballero, D.Abou-Ras, H.-W.Schock*

**Composition Dependence of Defects in CuIn<sub>1-x</sub>GaxSe<sub>2</sub> Solar Cells**

DPG-Frühjahrstagung

Berlin 25. Feb - 29. Feb 2008

## SE5.Energetics

Oral

*Tomm, Y.; Fiechter, S.; Schorr, S.*

**Melt growth of chalcopyrite crystals**

Deutsche Kristallzüchtungstagung 2008

München 05. Mar - 07. Mar 2008

Invited Talk

*Tomm, Y.; Fiechter, S.; Schorr, S.*

**Kristallzüchtung von Chalkopyriten**

DGKK Arbeitskreis Massive Verbindungshalbleiter

Erlangen 09. Oct - 10. Oct 2008

Oral

*Tomm, Y.; Fiechter, S.; Schorr, S.*

**Novel photovoltaic materials: multinary Adamantine phases derived from ternary chalcopyrites**

The 4th Asian Conference on Crystal growth and Crystal technology

Sendai, Japan 21. May - 24. May 2008

## SE4 - Dynamics of Interfacial Reactions

## SE2.Concepts

Oral

*Belaidi, A.; Kieven, D.; Tornow, J.; Katerski, A.; Schwarzbburg, K.; Dittrich, Th.; Krunks, M.; Lux Steiner, M. Ch*

**ZnO-nanorod arrays for solar cells with ultra thin In<sub>2</sub>S<sub>3</sub> and CuInS<sub>2</sub>**

17 th International Conference on Photochemical Conversion and Storage of Solar Energy

Sydney, Australia 27. Jul - 01. Aug 2008

## SE4.Cells

Invited Talk

*Kieven, D; Dittrich, T; Belaidi, A; Tornow, J; Schwarzbburg, K; Allsop, N; Lux-Steiner, M*

**Charge separation and recombination in photovoltaic cells based on ZnO-nanorod arrays**

E-MRS 2008 Spring Meeting

Strasbourg, France 26. May - 30. May 2008

Oral

*Döscher, H.; Seidel, U.; Hannappel, T.*

**Investigation of crucial interfaces for III-V multi-junction solar cells**

72. Jahrestagung der DPG und DPG Frühjahrstagung des Arbeitskreises Festkörperphysik mit anderen Fachverbänden und den Arbeitskreisen der DPG

Berlin 25. Feb - 29. Feb 2008

Poster

*Döscher, H.; Seidel, U.; Hannappel, T.*

**Interface investigations for III-V solar cells**

72. Jahrestagung der DPG und DPG Frühjahrstagung des Arbeitskreises Festkörperphysik mit anderen Fachverbänden und den Arbeitskreisen der DPG

Berlin 25. Feb - 29. Feb 2008

Oral

*Döscher, H.; Kunert, B.; Volz, K.; Stolz, W.; Hannappel, T.*

**In-situ RAS Charakterisierung von MOCVD-präparierten GaP(100)-Oberflächen**

23. DGKK Workshop

Braunschweig 04. Dec - 05. Dec 2008

Invited Talk

*Dr. Thomas Hannappel*

**High-efficiency III-V multijunction solar cells: Basic concepts and critical issues**

NANOMAT 2008

Ankara, Turkey, 24.04.2008

Invited Talk

*Dr. Thomas Hannappel*

**Nanotechnologien: Technische Potenziale und ökologische Risiken**

Schwerin 31. May - 31. May 2008

Oral

*Hannappel, T.; Sagol, B.E.; Seidel, U.; Szabo N.; Schwarzbürg, K.; Bauhuis, G.J.; Mulder, P.*

**Measurement of an InGaAsP/InGaAs tandem solar cell under GaAs**

33rd IEEE Photovoltaic Specialists Conference

San Diego-USA 11. May - 16. May 2008

Oral

*Henning Döscher and Thomas Hannappel*

**Analysis of GaP(100) surfaces with in-situ RDS to control the MOVPE-preparation of homo- and hetero-epitaxial films**

14th International Conference of Metalorganic Vapor Phase Epitaxy

Metz, France 01. Jun - 06. Jun 2008

Oral

*P. Kleinschmidt, A. Dobrich, H. Döscher, S. Brückner, C. Höhn, T. Hannappel*

**Wasserstoffbindungen an MOCVD-präpariertem Silizium für III-V-Epitaxie**

23. Workshop der Deutschen Gesellschaft für Kristallwachstum und Kristallzüchtung (DGKK) über

Braunschweig 04. Dec - 05. Dec 2008

Poster

*Sagol, B.E.; Seidel, U.; Szabo, N.; Höhn, C.; Döscher, H.; Schwarzbürg, K.; Hannappel, T.; Bauhuis, G.J.; Mulder, P.*

**Performance of InGaAsP/InGaAs tandem solar cells under GaAs**

23rd European Photovoltaic Solar Energy Conference

Valencia-Spain 01. Sep - 05. Sep 2008

**Poster**

*Schwarzburg, K; Belaidi, A; Kieven, D; Tornow, J; Dittrich, T*

**ZnO-nanorod solar cells with ultra thin In<sub>2</sub>S<sub>3</sub> and CuInS<sub>2</sub> absorbers**

23rd European Photovoltaic Solar Energy Conversion Conference and Exhibition  
Valencia, Spain 01. Sep - 05. Sep 2008

**Oral**

*T. Hannappel, B.E. Sagol, U. Seidel, N. Szabó, K. Schwarzburg*

**Utilizing InGaAs and InGaAsP absorbers in a tandem solar cell**

IEEE Photovoltaic Specialists Conference

San Diego 11. May - 16. May 2008

**Oral**

*U. Seidel, H. Döschner, N. Szabo, B.E. Sagol, B. Kunert, K. Volz, W. Stolz, K. Schwarzburg, T. Hannappel*

**"Reflection difference spectroscopy for the improvement of interfaces of a III-V multijunction solar cell"**

European Society for Quantum Solar Energy Conversion workshop  
Bad Gastein, Austria 02. Mar - 07. Mar 2008

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**SE4.Dynamics**

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**Oral**

*Bartelt, A.; Szarko, J.; Neubauer, A.; Schwarzburg, K.; and Eichberger, R.*

**Ultrafast spectroscopy of charge carrier dynamics at the interfaces of organic absorbers bound to nanostructured ZnO and TiO<sub>2</sub> electrodes**

Quantsol 2008 Winter workshop

Bad Gastein, Salzburg, Österreich 02. Mar - 07. Mar 2008

**Invited Talk**

*Bartelt, A.; Szarko, J.; Neubauer, A.; Schwarzburg, K.; and Eichberger, R.*

**CHARGE CARRIER DYNAMICS IN ORGANIC ABSORBERS BOUND TO NANOSTRUCTURED ZNO AND TiO<sub>2</sub>**

IC4N-2008 - International Conference from Nanoparticles and Nanomaterials to Nanodevices and Nanosystems

Halkidiki, Griechenland 16. Jun - 18. Jun 2008

**Invited Talk**

*J. Szarko, A. Neubauer, L. Socaciau-Siebert, A. Bartelt, F. Birkner, K. Schwarzburg, R. Eichberger*

**Electron Injection Dynamics of Perylene Derivatives into ZnO and TiO<sub>2</sub> Particle Films**

Indian Institute of Science

Bangalore, India 09. Dec - 09. Dec 2008

**Oral**

*J. Szarko, A. Neubauer, L. Socaciau-Siebert, A. Bartelt, F. Birkner, K. Schwarzburg, R. Eichberger*

**Electron Injection Dynamics of Perylene Derivatives into ZnO and TiO<sub>2</sub> Particle Films**

Ultrafast Phenomena Conference

Stresa, Italy 09. Jun - 13. Jun 2008

**Oral**

*Jodi Szarko, Antje Neubauer, Liana Socaciu-Siebert, Andreas Bartelt, Frank Birkner, Klaus Schwarzburg, Thomas Hannappel, and Rainer Eichberger*

**Femtosecond spectroscopy of photo-induced processes**

European Society for Quantum Solar Energy Conversion

Bad Gastein, Austria 02. Mar - 07. Mar 2008

**Oral**

*Jodi Szarko, Liana Socaciu-Siebert, Antje Neubauer, Thomas Hannappel, Rainer Eichberger*

**Electron relaxation dynamics at the In-rich (100) surface of InP**

SPIE Photonics West

San Jose, CA, USA 19. Jan - 27. Jan 2008

## SE4.Others

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Poster

*Dhiman, S.B.; Janata, E.*

**Early stages after the reduction of silver ions in aqueous solution: Evidence for equilibria?**

Trombay Symposium on Radiation & Photochemistry TSRP 2008

Pune, Indien 07. Jan - 11. Jan 2008

Invited Talk

*Janata, E.*

**Early stages in the reduction or oxidation of silver ions in aqueous solution**

Trombay Symposium on Radiation & Photochemistry (TSRP) 2008

Pune, Indien 07. Jan - 11. Jan 2008

Invited Talk

*Janata, E.*

**Radical reactions with some aliphatic alcohols and isobutene. A pulse radiolysis study**

Pune University Workshop on Radiation & Photochemistry PUWORP-2008

Pune, Indien 11. Jan - 12. Jan 2008

Poster

*Kulkarni, M.S.; Janata, E.*

**Radiation chemical oxidation of Ag<sup>+</sup>**

Trombay Symposium on Radiation & Photochemistry TRSP 2008

Pune, Indien 07. Jan - 11. Jan 2008

## SE5 - Solar Energy

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### BENSC.User

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Oral

*Grzanna, J.; Lewerenz, H. J.*

**Model for Current Oscillations at the Si/Electrolyte Contact: Extension to Spatial Resolution**

Prime Pacific Rim Meeting on Electrochemical and Solid-State Science

Honolulu 12. Oct - 17. Oct 2008

### FMD

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Oral

*Grzanna, J.; Lewerenz, H. J.*

**Stress-induced 1-dimensional model for current oscillations at the Si/electrolyte contact**

Porous Semiconductors Science and Technology

Sa Coma, Spanien 10. Mar - 14. Mar 2008

## SE5.Energetics

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Oral

*Bogdanoff, P.*

**Platin-freie Katalysatoren für die Kathode in PEM-FC: Stand der Forschung am Hahn-Meitner-Institut Berlin**

6. Riesaer Brennstoffzellen Workshop

Riesaer 26. Feb - 26. Feb 2008

Oral

*Brunkens, S.; Mientus, R.; Ellmer, K.*

**A Two-Step Process for the Preparation of Photoactive Tungsten Disulfide Layers: A Real-Time, in situ X-Ray Diffraction Study**

14th International Conference on Thin Films & Reactive Sputter Deposition

Ghent, Belgium 17. Nov - 20. Nov 2008

Oral

*Brunkens, S.; Mientus, R.; Ellmer, K.*

**Schnelle metallsulfid-induzierte Kristallisation von hochtexturierten, photoaktiven Wolframdisulfid-Schichten**

XIV. Erfahrungsaustausch

Mühlleithen, Erzgebirge 04. Mar - 06. Mar 2008

Oral

*Brunkens, S.; Mientus, R.; Ellmer, K.*

**In-situ energy-dispersive X-ray diffraction of metal sulfide assisted crystallization of strongly (001) textured photoactive tungsten disulfide thin films**

7th International Conference on Coatings on Glass and Plastics

Eindhoven, The Netherlands 15. Jun - 19. Jun 2008

Oral

*Brunkens, S.; Mientus, R.; Ellmer, K.*

**Rapid nickel-sulphide-induced crystallization of textured tungsten disulfide films: An in situ real-time diffraction study**

HASYLAB-Nutzertreffen, Hamburg

Hamburg 25. Jan - 25. Jan 2009

Oral

*Brunkens, S.; Mientus, R.; Ellmer, K.*

**In situ EDXRD of metal-sulfide assisted crystallization of strongly (001)-textured photoactive WS<sub>2</sub> films**

23rd European Photovoltaic Solar Energy Conference and Exhibition

Valencia, Spain 01. Sep - 05. Sep 2008

Oral

*Brunkens, S.; Ellmer, K.*

**Rapid metal-sulphide-induced crystallization of highly textured tungsten disulphide thin films**

DPG-Tagung, Festkörperphysik, Fachverband

Berlin 25. Feb - 29. Feb 2008

Oral

*Ellmer, K.*

**n-leitende TCO-Schichten für Dünnschichtsolarzellen - eine Übersicht**

OTTI-Fachtagung

Neu-Ulm, Germany 01. Oct - 02. Oct 2008

Oral

*Ellmer, K.*

**Electrical Transport Properties of Zinc Oxide: Room for Improvements?**

2nd Int. Symposium on Transparent Conductive Oxides

Chersonissos, Crete, Greece 22. Oct - 26. Oct 2008

Oral

*Ellmer, K.*

**Carrier Transport in Homo- and Heteroepitaxial Zinc Oxide Layers**

MRS Fall Meeting, Symposium B

Boston, USA 01. Dec - 05. Dec 2008

Invited Talk

*Ellmer, K.*

**Moderne Dünnschichtsolarzellen: Herausforderung für hocheffiziente und großflächige Schichtabscheideverfahren**

Eingeladener Vortrag an der Universität Greifswald "Greifswalder Physikalisches Kolloquium?  
Greifswald 12. Jun - 12. Jun 2008

Oral

*Ellmer, K.*

**Electrical Transport in Zinc Oxide Based Transparent Window Layers**

E-MRS Fall Meeting, Symposium B  
Warshaw, Poland 15. Sep - 19. Sep 2008

Oral

*Ellmer, K.*

**Plasmaunterstützte Schichtabscheidung für Dünnschichtsolarzellen: Prinzipien und Anwendungen**

XV. Erfahrungsaustausch  
Mühlleithen, Erzgebirge 04. Mar - 06. Mar 2008

Invited Talk

*Fiechter, S.; Bogdanoff, P.; Koslowski, U.; Zehl, G.; Dorbandt, I.; Herrmann, I.*

**Energy Conversion in Fuel Cells: Structure-Activity-Relationship of Pt-free Electrocatalysts**

Materials Science and Engineering Congress and Exhibition on Advanced Materials and Processes 08  
Nürnberg 01. Sep - 04. Sep 2008

Poster

*Friedrich, D.; Martinez Moreno, E.; Junghähnel, M.; Engel, N.; Wünsch, F.; Tributsch, H.; Kunst, M.*

**Charge carrier transport in the bulk and at the surface of nanoparticles**

XVII International Materials Research Congress  
Cancun, Mexiko 17. Aug - 21. Aug 2008

Poster

*Friedrich, D.; Martinez Moreno, E.; Wünsch, F.; Tributsch, H.; Kunst, M.*

**The microwave/(photo)electrochemical characterization of silicon nitride films on silicon**

XVII International Materials Research Congress  
Cancun, Mexiko 17. Aug - 21. Aug 2008

Oral

*I. Dorbandt, G. Zehl, P. Bogdanoff, K. Wippermann, S. Haas, A. Hoell, M. Wollgarten, S. Fiechter*

**Preparation strategies and structural characterization of selenium modified ruthenium nano-particles as cathode catalyst for PEM fuel cells.**

213th ECS Meeting, Phoenix (AZ) 2008  
Phoenix 18. May - 22. May 2008

Oral

*I. Herrmann, U. Koslowski, C. Barkschat, S. Fiechter, P. Bogdanoff, N. Iwata, H. Takahashi, H. Nishikori*

**Preparation and structure-analysis of heat treated Co-and Fe-porphyrines as cathode catalysts for H<sub>2</sub>-PEM-FCs**

213th ECS Phoenix, Phoenix (AZ) 2008  
Phoenix 18. May - 22. May 2008

Invited Talk

*Kunst, M.*

**Amorphous silicon/crystalline silicon Heterojunctions in photovoltaics**

MSE Nuernberg  
nuernberg 01. Sep - 04. Sep 2008

Oral

*Kunst, M.;*

**Characterization of semiconductors and semiconductor devices for photovoltaics in the microwave frequency range**

10emes Journees de caracterization Microondes et Materiaux

Limoges (Frankreich) 02. Apr - 04. Apr 2008

Oral

*N. Iwata, H. Takahashi, H. Nishikoori, I. Herrmann, U. Koslowski, C. Barkschat, S. Fiechter, P. Bogdanoff*

**Evaluation and Analysis of PEM-FC Performance using Non-Platinum Cathode Catalysts based on Pyrolysed Fe- and Co-Porphyrins**

213th ECS Meeting, Phoenix (AZ), 2008

Phoenix 18. Mar - 22. Mar 2008

Oral

*Seeger, S.-; Ellmer, K.*

**Präparation von CuInS<sub>2</sub>-Schichten durch reaktives Magnetronputtern: Einfluß der Teilchenenergie auf Morphologie und elektrische und optische Eigenschaften**

XV. Erfahrungsaustausch

Mühlleithen, Erzgebirge 02. Mar - 06. Mar 2008

Oral

*Seeger, S.; Ellmer, K.*

**Reactive Magnetron Sputtering of CuInS<sub>2</sub> Absorbers for Thin Film Solar Cells: Problems and Prospects**

7th International Conference on Coatings on Glass and Plastics

Eindhoven, The Netherlands 15. Jun - 19. Jun 2008

Oral

*Seeger, S.; Ellmer, K.*

**Preparation of CuInS<sub>2</sub> chalcopyrite films by reactive magnetron sputtering: Influence of the Particle Energy on morphological, electrical and optical properties**

DPG-Jahrestagung, Festkörperphysik

Berlin 25. Feb - 29. Feb 2008

Oral

*Seeger, S.; Grötzschel, R.; Ellmer, K.*

**Reactive Magnetron Sputtering of Sulfides for Thin Film Solar Cells**

14. International Conference on Thin Films and Reactive Sputtering Deposition 2008

Ghent/Belgium 17. Nov - 20. Nov 2008

Oral

*Seeger, S.; Grötzschel, R.; Ellmer, K.*

**Reactive Magnetron Sputtering of CuInS<sub>2</sub> Absorbers for Thin Film Photovoltaics: Relation Between Deposition Parameters and Film Morphology**

23rd European Photovoltaic Solar Energy Conference and Exhibition

Valencia, Spain 01. Sep - 05. Sep 2008

Oral

*Seeger, S.; Grötzschel, R.; Ellmer, K.*

**Reactive Magnetron Sputtering of Sulfides for Thin Film Solar Cells**

14th International Conference on Thin Films & Reactive Sputter Deposition

Ghent, Belgium 17. Nov - 20. Nov 2008

Oral

*Tomm, Y.; Fiechter, S.; Schorr, S.*

**Melt growth of chalcopyrite crystals**

Deutsche Kristallzüchtungstagung 2008

München 05. Mar - 07. Mar 2008

**Invited Talk**

*Tomm, Y.; Fiechter, S.; Schorr, S.*

**Kristallzüchtung von Chalkopyriten**

DGKK Arbeitskreis Massive Verbindungshalbleiter  
Erlangen 09. Oct - 10. Oct 2008

**Oral**

*Tomm, Y.; Fiechter, S.; Schorr, S.*

**Novel photovoltaic materials: multinary Adamantine phases derived from ternary chalcopyrites**

The 4th Asian Conference on Crystal growth and Crystal technology  
Sendai, Japan 21. May - 24. May 2008

**Poster**

*Zehl, G.; Dorbandt, I.; Bogdanoff, P.; Fiechter, S.*

**Selenium-modified ruthenium-nanoparticles as a highly selective electrocatalyst for the oxygen reduction in DMFCs**

F-Cell, 8. Internationales Forum für Produzenten und Anwender  
Stuttgart, Germany 28. Sep - 29. Sep 2008

**Poster**

*Zehl, G.; Dorbandt, I.; Kramm, U.; Zizak, I.; Herrmann, I.; Bogdanoff, P.; Fiechter, S.*

**On the development of electrocatalysts for fuel cells: Study of phase formation and particle growth by in-situ X-Ray Analysis during thermal catalyst activation**

BESSY User's Meeting 2008  
Berlin, Germany 04. Dec - 05. Dec 2008

**Poster**

*Zehl, G.; Dorbandt, I.; Schmithals, G.; Bogdanoff, P.; Fiechter, S.*

**In-situ XAFS investigation probing Se-modified Ru/C-electrocatalyst for fuel cells under oxygen reduction conditions**

HASYLAB user's meeting 2008  
Hamburg, Germany 25. Jan - 25. Jan 2008

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**SE5.Interfaces****Poster**

*Fiechter, S.; Tomm, Y.; Kanis, M.; Scherr, R.; Kautek, W.*

**On the homogeneity region, growth modes and optoelectronic properties of chalcopyrite - type CuInS<sub>2</sub>**

ICTMC - 16  
Berlin 15. Sep - 19. Sep 2008

**Oral**

*Heine, C.; Munoz, A.*

**Optimization Strategies for Photocatalytic Nanoemitter Cells**

NanoDieB Seminar  
Cottbus 01. Dec - 01. Dec 2008

**Poster**

*Kanis, M.; Stempel, T.; Skorupska, K.; Aggour, M.; Lewerenz, H.J.*

**Efficient Photoelectrochemical Solar Cell with Noble Metal Nanoemitter**

17. International Conference on Photochemical Conversion and Storage of Solar Energy  
Sydney, Australien 27. Jul - 01. Aug 2008

**Oral**

*Klemm, H.; Lublow, M.; Lewerenz, H.J.*

**Scanning tunneling microscopy/-spectroscopy of Platinum - Nanoparticles on Silicon**

NanoDieB Seminar  
Cottbus 01. Dec - 01. Dec 2008

Invited Talk

*Kolb, D. M.; Lewerenz, H. J.*

**In-situ and ex-situ Scanning Probe Microscopies on Electrochemically Modified Semiconductor Surfaces**

Workshop on ALD Layers

Burg, 18. Dec - 18. Dec 2008

Invited Talk

*Lewerenz, H. J.*

**Nanoemitter Solar Cells: Operation in the Photoelectrochemical and Catalytic Mode**

International Conference on Materials Science and Engineering

Nürnberg 02. Sep - 02. Sep 2008

Invited Talk

*Lewerenz, H. J.*

**Interface Design for Enhanced Photocatalytic Functioning**

Workshop on ALD Layers

Burg 18. Dec - 18. Dec 2008

Invited Talk

*Lewerenz, H. J.*

**The Collaborating Research Group: Options in Catalysis Research**

CRG Meeting-Workshop

Culmitz 12. Jul - 12. Jul 2008

Invited Talk

*Lewerenz, H. J.*

**Model experiments on Electrodeposition for Solar Device Characterization and Optimization**

CRG Meeting Bischofsmühle

Bischofsmühle 11. Jan - 11. Jan 2008

Invited Talk

*Lewerenz, H. J.; Skorupska, K.; Stempel, T.; Aggour, M.; Munoz, A. G.*

**Efficient Solar Cell Structure Prepared by Electrodeposition into Oscillation-Induced Nanoporous Silicon Oxide**

214th Meeting of The Electrochmical Society, Honolulu, Hawaii, USA

Honolulu-USA 15. Oct - 15. Oct 2008

Oral

*Lublow, M.; Lewerenz, H. J.*

**Fractal Pattern Formation on Silicon Photoelectrodes: Scaling Effects and Stress Analysis**

4th Gerischer Symposium

Berlin 25. Jun - 27. Jun 2008

Oral

*Lublow, M.; Lewerenz, H. J.*

**Photoelectrochemical Formation and Shaping of Silicon Nanostructures Controlled by in-situ Brewster-angle Reflectometry**

Tagung der Deutschen Physikalischen Gesellschaft (DPG)

Berlin 25. Feb - 29. Feb 2008

Oral

*Lublow, M.; Lewerenz, H. J.*

**Photoelectron spectroscopy on heterogenous nanostructures on Silicon photoelectrodes**

CRG Meeting Culmitz

Culmitz 11. Jul - 13. Jul 2008

**Invited Talk**

*Lublow, M.; Lewerenz, H. J.*

**Selective etching of residual suboxides on Si(111): combined AFM and SRPES analysis**

CRG Meeting Culmitz

Culmitz 11. Jul - 13. Jul 2008

**Invited Talk**

*Lublow, M.; Lewerenz, H. J.*

**Brewster-Winkel-Analyse horizontaler und vertikaler Nanostrukturen auf Silicium**

Nano-Seminar der Internationalen Graduiertenschule BTU Cottbus

14. Jan - 14. Jan 2008

**Oral**

*Resch, M.; Kanis, M.; Ellmer, K.*

**Reactivelly Sputtered Zinc Oxide Based Transparent Window Layers for CuInS<sub>2</sub> Thin Film Solar Cells**

14. International Conference on Thin Fils & Reactive Sputter Deposition

Ghent 17. Nov - 20. Nov 2008

**Oral**

*Skorupska, K.; Munoz, A.; Lublow, M.; Lewerenz H.J.*

**Planned measurements at Bessy II for the year 2008**

Cooperating Research Group (CRG) Meeting Bischofsmühle, Germany

11. Jan - 13. Jan 2008

**Oral**

*Stempel Pereira, T.; Aggour, M.; Skorupska, K.; Munoz, A.; Lublow, M.; Kanis, M.; Lewerenz, H.J.*

**Invenstigation of the Silicon-Oxide-Platinum interface for photoelectrochemical solar cells**

72. Jahrestagung der DPG und DPG Frühjahrstagung des Arbeitskreises Festkörperphysik

Berlin, 25. Feb - 29. Feb 2008

**Poster**

*Stempel, T.; Skorupska, K.; Lewerenz, H.J.*

**Noble Metal Based Silicon Nanoemitter Solar Cell**

24. EU PVSEC

Valencia 21. Sep - 24. Sep 2008

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**SE6.Interfaces****Oral**

*Lublow, M.; Lewerenz, H. J.*

**Silicon nanostructures for photocatalytic and photovoltaic application by chronoamperometric conditioning**

214th ECS PRIME Meeting

Honolulu, USA 12. Oct - 17. Oct 2008

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**SF3.Microstructure****Poster**

*Wollgarten, M.; Grothausmann, R.; Bogdanoff, P.; Zehl, G.; Dorbandt, I.; Fiechter, S.; Banhart, J.*

**Ruthenium deposition CO<sub>2</sub>-treated and untreated carbon black investigation by electron tomography**

14th European Microscopy Congress

Aachen, Germany 01. Sep - 05. Sep 2008

**SE6 - Electronic Structure of Semiconductor Interfaces****SE6.BESSY**

Oral

*Hoffmann, P.; Pettenkofer C.*

**Chemical Nature of N Incorporated in ZnO During Epitaxial Film Growth**

CRG Workshop 2008 Culmitz

Culmitz, Germany 11. Jul - 13. Jul 2008

Oral

*Hoffmann, P.; Pettenkofer C.*

**Movement of the Exit Slit at U49/2 - PGM2**

CRG Workshop Culmitz 2008

Culmitz, Germany 11. Jul - 13. Jul 2008

Oral

*Hoffmann, P.; Pettenkofer, C.*

**Chemical Nature of N Incorporated into ZnO During Epitaxial Film Growth**

DPG Spring Meeting 2008

Berlin, Germany 25. Feb - 29. Feb 2008

Poster

*Hoffmann, P.; Pettenkofer, C.*

**XPS and NEXAFS Studies of Nitrogen Incorporated into ZnO During Epitaxial Film Growth**

2nd International Symposium on Transparent Conductive Oxides

Hersonissos, Crete, Greece 22. Oct - 26. Oct 2008

Oral

*Hoffmann, P.; Pettenkofer, C.*

**Incorporation of Nitrogen into ZnO**

CRG-Workshop Culmitz 2007

Culmitz, Germany 06. Jul - 08. Jul 2008

Oral

*Lehmann, C., Pettenkofer Ch.*

**First Measurements with the Delay Line Detector**

CRG Klausurtagung 2008

Culmitz 11. Jul - 13. Jul 2008

Oral

*Lehmann, C.; Andres, S.; Pettenkofer, C.*

**Epitaxial Growth of ZnO on CuInS<sub>2</sub>(112)**

2nd International Symposium on Transparent Conductive Oxides

Hersonissos 22. Oct - 26. Oct 2008

Oral

*Lehmann, C.; Eyert, V.; Pettenkofer*

**Morphology and electronic structure of epitaxially grown CuInS<sub>2</sub> films**

DPG Frühjahrstagung 2008

Berlin 25. Feb - 29. Feb 2008

Oral

*Lehmann, C.; Eyert, V; Pettenkofer, C.*

**Morphology and electronic structure of CuInS<sub>2</sub> epi-layers**

CRG-Klausurtagung 2008/1

Bischofsmühle 11. Jan - 13. Jan 2008

Oral

*Pettenkofer, C.*

**The Quest for ZnO (1120)Surface States - an ARPES Study**

TCO 2008

hersonissos 22. Oct - 26. Oct 2008

Oral

*Pettenkofer, C.*

**The Quest for surface states in ZnO (11-20) surfaces**

DPG Frühjahrstagung

Berlin 25. Feb - 29. Feb 2008

Invited Talk

*Pettenkofer, C.*

**XPEEM an Si pn-Übergängen**

CRG-Treffen Culmitz

Culmitz 11. Jul - 13. Jul 2008

Invited Talk

*Pettenkofer, C.*

**Space charge regions and lateral inhomogenities in PEEM**

CRG-Meeting 7. 2008 Culmitz

Culmitz 11. Jul - 13. Jul 2008

Oral

*Pettenkofer, C.,Andres, S., Eyert,V*

**The Quest for ZnO (1120)Surface States - an ARPES Study**

DPG Frühjahrstagung Berlin

Berlin 25. Feb - 29. Feb 2008



## **Invited Lectures**

## SF - Structural Research

### SF - BENSC

#### BENSC.User

*Steiner*

#### **Das Hahn-Meitner-Institut heute und morgen - Mission und Vision**

Eingeladener Vortrag an der Physikalisch-Technischen Bundesanstalt (PTB), Braunschweig  
Braunschweig, 21.02.2008

#### SF1.BENSC

*Schneider, R.*

#### **Industrial Use of Neutrons**

CIAE Seminar

Beijing/China, 28.05.2008

*Schneider, R.*

#### **Tomography Techniques Using Different Probes: Neutrons and Photons**

Seminar CIAE

Beijing/China, 28.05.2008

*Schneider, R.*

#### **Route to Commercial Use of MSM Actuators: Novel Crystal Growth and Treatment**

China Institute of Physics, Beijing, China

Beijing/China, 08.06.2008

*Schneider, R.*

#### **Investigation of Short-Range Magnetic/Strutural Order by Diffuse Neutron Scattering**

CIAE Seminar

CIAE, Beijing, China, 28.05.2008

*Schneider, R.*

#### **Residual Stress Analysis Using Neutrons**

Seminar CIAE

CIAE, Beijing, China, 28.05.2008

*Schneider, R.*

#### **Neutron Instrumentation for Residual Stress Analysis: Monochromators**

CIAE Seminar

Beijing/China, 28.05.2008

*Schneider, R.*

#### **Neutrons and Photons: A Unique Tool for the Engineer**

China Institute of High Energy Physics

Beijing/China, 06.06.2008

*Schneider, R.*

#### **Residual Stress And Texture Analysis at the Research Reactors BER-II and FRM-II**

PTB Seminar

PTB Berlin, 26.09.2008

*Wimpory, R.C.*

#### **Around the Weld in a few minutes**

NUM Seminar PSI

PSI, Switzerland, 19.03.2008

**SF2.BENSC**

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Hauß, T.

**Untersuchungen zur Struktur und Dynamik von biologischen Membranen mittels Neutronenstreuung.**  
Kolloquium des Clemens-Schöpf-Institut  
Darmstadt, 07.04.2008

**PT**

Denker, A.

**Heilung aus dem Teilchenbeschleuniger - Augentumortherapie mit Protonen**  
Kolloquium am Bundesamt für Strahlenschutz  
Berlin, 16.06.2008

**SF1 - Methods and Instruments****SF1.Methods**

Pappas, C.

**How mach Larmor Precession affords Chirality**  
Neutronenseminar  
TU München, 17.11.2008

**SF1.Others**

Chmielus, M.

**Influence of Surface Preparation and Training on the Properties of Magnetic Shape-Memory Alloys**  
Seminar Talk of the Materials Science & Engineering Department of Boise State University  
Boise, Idaho, USA, 21.10.2008

**SF2 - Magnetism****SF2.Thin films**

Holub-Krappe, E.

**Spin Reorientation in Thin Magnetic Films: Correlation of Magnetism and Structure**  
Graduate School of Science, Chiba University, Japan  
Chiba, Japan , 04.09.2008

Holub-Krappe, E.

**Spin Reorientation in Thin Magnetic Films: Correlation of Magnetism and Structure**  
Keio University, Science and Technology, Surface Chemistry Laboratory  
Keio, Japan, 05.09.2008

**SF3 - Materials****SF3.Scattering**

Hoell, A.

**Anomalous Small Angle X-Ray Scattering: The new instrument at BESSY and some applications in material science**  
Raja Ramanna Centre for Advanced Technology (RRCAT)  
Indore, Indien, 09.01.2008

*Hoell, A.*

**Anomalous Small Angle X-Ray Scattering and some applications in material science**

Bhabha Atomic Research Centre (BARC)

Mumbai, India, 11.01.2008

*Hoell, A.*

**Anomalous Small Angle X-Ray Scattering and some applications in material science**

Material Science Division

Kalpakkam, Indien, 07.01.2008

*Tatchev, D.*

**Small-Angle Scattering and Anomalous Small-Angle X-ray Scattering in Materials Science**

University of Aberystwyth

Aberystwyth, Wales, 07.02.2008

## **SF3.Tomo**

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*Manke, I.*

**Bildgebende Verfahren in der Brennstoffzellen-Forschung**

Materialwissenschaftliches Kolloquium an der Universität Darmstadt

Darmstadt, Germany, 21.01.2008

## **SF6 - Trace Elements**

### **SF6.Analysis**

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*Kühbacher, M.*

**Von der Bestimmung der Elementverteilung in großen und kleinen Gehirnen - Chemical imaging with neutrons and photons**

Wissenschaftliches Kolloquium des Museums für Naturkunde der Humboldt-Universität zu Berlin  
Berlin, 03.06.2008

*Kühbacher, M.*

**Chemical imaging of complex biomatter with photons of different energy**

Forschungszentrum Karlsruhe, Synchrotron Light Source ANKA - Seminar  
Karlsruhe, 13.06.2008

## **SF8 – Structure and Dynamics**

### **SF8.Dynamics**

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*Mahnke, H.-E.*

**Ion-beam induced nano-sized Ag-metal clusters in glass**

Seminar at the Centre de Recherche et de Restauration des Musées de France, Palais du Louvre, Paris,  
2.4.2008

Paris, 02.04.2008

**SFN1 - Magnetism and Superconductivity of Quantum Materials****SF.N1**

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Pieper, O.

**Magnetic structure and spin dynamics of the quasi one-dimensional, frustrated antiferromagnet**

**CaV<sub>2</sub>O<sub>4</sub>**

HU Berlin Seminar: Magnetism and electronic correlations,

Berlin, 02.07.2008

## SE - Solar Energy Research

### SE1 - Silicon Photovoltaics

#### SE1.Cells

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Lips, K.

**New approaches in EPR spectroscopy to study old problems in amorphous and microcrystalline silicon**

Colloquium of the National Renewable Energy Laboratory (NREL)  
Golden, Colorado, USA, 28.08.2008

Lips, K.

**Spins in Silizium-Solarzellen**

Seminarvortrag RWTH Aachen  
Aachen, 25.01.2008

Nickel, N. H.

**Properties of hydrogen in polycrystalline silicon**

Seminarvortrag Q-Cells  
Thalheim, 26.02.2008

Rech, B.

**Grundlagenforschung und Industrie. Kann die PV-Forschung in Berlin den Anforderungen der Unternehmen gerecht werden?**

Forschungspolitischen Dialog „Potenziale und Perspektiven der Energietechnik in Berlin/Brandenburg“ der Technologiestiftung Berlin  
Berlin, 02.10.2008

Rech, B.

**Dünnschichtphotovoltaik - Perspektiven und Herausforderungen**

Festkolloquium anlässlich des 20jährigen Erscheinens der Zeitschrift „Vakuum in Forschung und Praxis“  
Berlin, 16.05.2008

Rech, B.

**Dünnschichtphotovoltaik - neue Technologien für kostengünstige Solarzellen**

Berliner Industriegespräch der DPG  
Magnus-Haus Berlin, 05.03.2008

Rech, B.

**Herausforderungen und Perspektiven einer neuen Technologien**

Fakultätstag der Fakultät IV der TU Berlin  
Berlin, 01.02.2008

Rech, B.

**Solarzellen aus dünnen Siliziumschichten: Stand der Technik und neue Konzepte**

Institutskolloquium an der TUB, Institut für Optik und Atomare Physik  
Berlin, 09.12.2008

Rech, B.

**Solarzellen an dünnen Siliziumschichten - Stand der Technik und Herausforderungen für die Zukunft**

Institutskolloquium am Weierstrass Institute for Applied Analysis and Stochastics (WIAS)  
Berlin, 24.11.2008

*Rech, B.*

**Grundlagenforschung und Industrie. Kann die PV-Forschung in Berlin den Anforderungen der Unternehmen gerecht werden?**

Forschungspolitischer Dialog - Veranstaltungsreihe der Technologiestiftung Berlin mit der Senatsverwaltung für Bildung, Wissenschaft und Forschung

Berlin, 10.07.2008

*Schnegg A.*

**Determination of Large Zero Field Splittings in Transition Metal Ion Complexes: a Fourier Transform THz-EPR study**

Kolloquium zur Physik der kondensierten Materie (WS 08/09) Universität Freiburg  
Freiburg, 18.12.2008

*Schnegg, A.*

**Spin dependent charge transport processes in semiconductor and organic solar cells: a pulsed electrically detected magnetic resonance study**

Kolloquiumsvortrag, Universität Freiburg  
Freiburg, Deutschland, 17.12.2008

*Schnegg, A.*

**FT THz EPR on transition metal ion complexes**

EPR Seminar  
Boston, USA, 13.05.2008

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## SE1.Hetero

*Angermann, H.*

**Electronic properties of silicon interfaces: Effect of surface morphology and wet-chemical pre-treatment**

Seminar SolarZentrum  
CiS Institut für Mikrosensorik Erfurt , 22.08.2008

*Korte, L.*

**The amorphous-crystalline silicon interface - key for high efficiency silicon heterojunction solar cells**

Instituts-Kolloquium des Weierstraß-Instituts Berlin  
Weierstraß-Institut Berlin, 24.11.2008

*Korte, L.*

**Electronic states in amorphous/crystalline silicon heterojunctions**

Institutskolloquium der Uni Oldenburg  
Oldenburg, 13.05.2008

*Rappich, J.*

**Electrochemical functionalisation of Si surfaces by organic molecules: In-situ investigation of electronic and structural properties**

Seminarvortrag an der Universität von Salerno  
Salerno/Italien 22. Oct - 28. Oct 2008

*Stangl, R..*

**Entwicklung / Charakterisierung / Simulation von a-Si:H/c-Si Heterosolarzellen am HMI**

Kolloquium am Fraunhofer Institut Solare Energiesysteme (ISE), Freiburg  
Freiburg, 18.04.2008

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## SE1.Others

*Schnegg, A.*

**Determination of Large Zero Field Splittings by Fourier Transform THz EPR**

Tallahassee, USA, 19.05.2008

## SE2 - Heterogeneous Material Systems

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### SE2.Analytics

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*Lux-Steiner, M. Ch.*

#### **Solarzellen mit integriertem Speicher**

Jahresveranstaltung zum Doktorandenprogramm Hans L. Merkle Stiftung (HLMS)  
Stuttgart, Germany, 14.02.2008

*Sadewasser, S.*

#### **Kelvin probe force microscopy on semiconductors**

University of Illinois, Urbana Champaign (USA), 01.08.2008

*Sadewasser, S.*

#### **Kelvin probe force microscopy on semiconductors**

EMPA, Zürich (Switzerland), 16.05.2008

*Sadewasser, S.*

#### **Surface potential of chalcopyrite thin films measured by Kelvin probe force microscopy**

National Renewable Energy Laboratory, Golden, USA, 31.07.2008

*Sadewasser, S.*

#### **Kelvin probe force microscopy on semiconductors**

Czech Academy of Sciences

Prag, Czech Republic, 15.05.2008

### SE2.Chemistry

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*Fischer, C.-H.*

#### **ILGAR - a versatile and robust deposition method for metal oxide and sulfide thin films - not only for solar cell applications**

Forschungszentrum Jülich Institut für Bio- und Nanosysteme Institutsvortrag  
Jülich, 08.12.2008

### SE2.Others

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*Lux-Steiner, M. Ch.*

#### **Introduction to the 2nd General Assembly of the Integrated Project ATHLET**

ATHLET General Assembly  
Zurich, Switzerland, 10.01.2008

*Lux-Steiner, M.Ch.*

#### **Photovoltaic Research (HGF-Vortrag, Brüssel)**

Helmholtz Association of German Research Centres (HGF):  
Brussels, Belgium, 05.11.2008

### SE2.Semico

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*Klenk, R.*

#### **Material Properties and Design of Chalcopyrite-Based Solar Cells and Modules**

Universität Jena, Kolloquium Festkörperphysik  
Jena, 21.11.2008

*Lux-Steiner, M. Ch.*

#### **Progress in inorganic thin film photovoltaics**

A.Mickiewicz University  
Poznan, Poland, 29.02.2008

*Lux-Steiner, M. Ch.*  
**Die Photovoltaik-Kompetenzen in Berlin-Brandenburg**  
Bosch meets Adlershof  
WISTA-Management GmbH, Berlin, Germany, 12.08.2008

### **SE3 - Technology**

#### **SE3.Control**

*Abou-Ras, D.*  
**Electron microscopy analyses of chalcopyrite-type thin film solar cells**  
Seminarvortrag an der Tallinn University of Technology  
Tallinn, Estland, 22.09.2008

### **SE4 - Dynamics of Interfacial Reactions**

#### **SE4.Cells**

*Dr. Thomas Hannappel*  
**Helmholtz-Zentren Kollegs und Graduiertenschulen für Doktoranden**  
Sankt Andreasberg, 14.07.2008

*Dr. Thomas Hannappel*  
**"MOCVD-präparierte III-V-Solarzellen III-V-Halbleiter auf Silizium"**  
Universität Göttingen  
Göttingen, 19.06.2008

*Sagol, B.E.*  
**III-V Grubu Günes Pilleri (in turkish language Group III-V Solar Cells)**  
The Chamber of Electrical Engineers, Mersin-Turkey, 04.01.2008

*Sagol, B.E.*  
**Basic Concepts and Interfacial Aspects of High-Efficiency III-V Multijunction Solar Cells**  
Sabanci University - Faculty of Engineering and Natural Sciences, Istanbul-Turkey, 02.01.2008

#### **SE4.Others**

*Janata, E.*  
**Growth of small silver particles in aqueous solution. Pulse radiolysis experiments at the ELBENA facility.**  
Seminare LCP  
Orsay, Frankreich, 15.12.2008

*Janata, E.*  
**Pulse Radiolysis: Method, Instrumentation and Applications**  
physikalisch-chemisches Kolloquium  
TU Graz, Institut für Physikalische und Theoretische Chemie, 23.04.2008

**SE5 - Solar Energy****FMD**

Grzanna, J.; Lewerenz H. J.

**"Model for current oscillations at the Si/electrolyte contact: microscopic and macroscopic description"**

Nano DieB: Materialien für zukünftige Si-Nano-Technologien, Seminar der Class A der Cottbus Graduate School  
BTU Cottbus, 19.05.2008

**SE5.Energetics**

*Ellmer, K.*

**Nonreactive and Reactive Magnetron Sputtering of Layers for Thin Film Solar Cells**

Firma Applied Quantum Technology  
Santa Clara, California, USA 10. Dec - 10. Dec 2008

*Ellmer, K.*

**Nonreactive and Reactive Magnetron Sputtering of Layers for Thin Film Solar Cells**

National Renewable Energy Laboratory (NREL)  
Golden, Colorado, USA 09. Dec - 09. Dec 2008

*Fiechter, S.*

**Nanostrukturen zur Erzeugung solarer Brennstoffe - Photoelektrokatalyse im Bereich Solarenergie des HZB**

Wasserstoff-Kolloquium  
Berlin 03. Jul - 03. Jul 2008

Invited Talk

*Kunst, M.*

**(Opto)electrical characterization of semiconductors and semiconductor junctions**

Universität Cottbus Lehrveranstaltung  
Cottbus 10. Nov - 10. Nov 2008

**SE5.Interfaces**

*Herr Prof. Dr. H.-J. Lewerenz*

**Advances in Solar Energy Conversion Processes and Nanoemitter Solar Cells**

Seminar Nanoscale Dielectric Barriers  
Cottbus, 28.01.2008

*Lewerenz, H. J.*

**Photocurrent Oscillations at Silicon Electrodes: Experimental Findings and Conclusions**

Seminar Nanoscale dielectric barriers  
Cottbus, 19.05.2008

*Lewerenz, H. J.*

**Storageable Solar Energy: The Photoelectrocatalytic Mode**

MSE Seminar Series, North Carolina State University  
Raleigh-USA, 24.10.2008

*Lewerenz, H. J.*

**Nanoscience Aspects in Solar Energy Conversion**

Colloquium, Georgia State University,  
Atlanta-USA, 08.10.2008

Lewerenz, H. J.

**Enzyme-Semiconductor Interactions: Fundamental Aspects and Routes to Photoactive Devices**

Distinguished Seminar Series, Fitzpatrick Institute for Nanophotonics

Durham-USA, 28.10.2008

Lublow, M.

**Optical real-time control of silicon nanotopography formation for photocatalytic and photovoltaic applications**

Seminarvortrag, Micro Nano Devices & Systems Laboratory, University of Texas at Dallas  
Richardson, USA 20. Oct - 20. Oct 2008

Lublow, M.

**Optical real-time control of silicon nanotopography formation for photocatalytic and photovoltaic applications**

Complex Matter and Biophysics Seminar, North Carolina State University  
Raleigh, USA 04. Nov - 04. Nov 2008

Lublow, M.

**Silicon Micro- and Nanotopographies for Photocatalytic and Photovoltaic Applications - Engineering and Modeling Aspects Self-organized**

Seminar, National Renewable Energy Laboratory (NREL)  
Golden, USA 08. Oct - 08. Oct 2008

Skorupska, K.

**High resolution imaging of enzymes on step bunched Silicon**

Nano DieB:  
BTU Cottbus Germany, 21.01.2008

Stempel Pereira, T.

**Elektrochemisch induzierte Nanostrukturen zur Solarenergieumwandlung**

AG Prof. Thomsen, Seminar  
Berlin 04. Feb - 04. Feb 2008

**SE6 - Electronic Structure of Semiconductor Interfaces**

**SE6.BESSY**

Pettenkofer, C.

**Surface and Junction Properties of various ZnO interfaces**

Special Physics Seminar Portland State University  
Portland, 10.04.2008

## Patents and Patent Application

### Patents

Dep.	HGF-Programme	Inventor	Title	Date of filing	Date of grant
SE1	Energy	Kunst, M.; Lips, K.; Schmidt, M.; Schneider, J.; Stangl, R.; Wünsch, F.	Verfahren zur Herstellung einer einseitig kontaktierten Solarzelle und einseitig kontaktierte Solarzelle DE: 102005025125	29.05.05	08.05.08
SE2	Energy	Dinse, K.-P.; Harneit, W.; Mertesacker, B.; Waiblinger, M.; Weidinger, A.	Verfahren und Anordnung zur Verarbeitung von quantenmechanischen Informationseinheiten DE: 1334466	16.11.01	23.04.08
SE2	Energy	Chen, J.; Könenkamp, R.	Vertikale Transistoranordnung mit einem flexiblen, aus Kunststofffolien bestehenden Substrat JP: 4102755	27.08.02	28.03.08
SE2	Energy	Fuertes Marrón, D.; Lux-Steiner, M.C.; Meeder, A.; Schedel-Niedrig, T.; Würz, R.	Schichtanordnung aus heteroverbundenen Halbleiterschichten mit zumindest einer zwischengelagerten Trennschicht CH: 1556901 DE: 1556901 ES: 1556901 FR: 1556901 GR: 1556901	09.10.03	28.05.08
SE2	Energy	Chen, J.; Könenkamp, R.	Vertical Nanotransistor, Method for Producing the same and Memory Assembly DE: 1656702 EP: 1656702 FR: 1656702 GB: 1656702	16.08.04	03.09.08
SE3	Energy	Pietzker, C.; Scheer, R.	Verfahren zur Herstellung einer Chalkogenid-Halbleiterschicht des Typs ABC2 mit optischer Prozesskontrolle DE: 1380050 EP: 1380050 ES: 1380050 FR: 1380050 GB: 1380050 GR: 1380050 IT: 1380050 PT: 1380050	04.04.02	01.10.08
SE3	Energy	Luck, I.; Rudigier-Voigt, E.; Scheer, R.	Zerstörungsfreies Analyseverfahren zur Güteermittlung einer Solarzelle auf Chalkopyritbasis DE: 10248504	13.10.02	10.01.08

<b>Dep.</b>	<b>HGF-Programme</b>	<b>Inventor</b>	<b>Title</b>	<b>Date of filing</b>	<b>Date of grant</b>
SE5	Energy	Küppers, U.; Rojas-Chapana, J.; Tributsch, H.	Transparentes Versiegelungsmaterial für lichtbestrahlte, photoelektronisch aktive Oberflächen DE: 1482563 EP: 1482563	18.05.04	28.05.08
SE5	Energy	Abdallah, O.; Citarella, G.; Kunst, M.; Wünsch, F.	Heterocontact Solar Cell with Inverted Geometry of its Layer Structure NA: 20070025	11.04.06	20.02.08
SE5	Energy	Ellmer, K.; Unold, T.	Reaktives Magnetron-Sputtern zur großflächigen Abscheidung von Chalkopyrit-Absorberschichten für Dünnschichtsolarzellen DE: 102006057068	29.11.06	15.05.08
SE5, SF8	Energy	Fink, D.; Küppers, U.; Rojas-Chapana, J.; Tributsch, H.	Flexible, atmungsaktive Polymerfolie DE: 10301984	15.01.03	03.07.08
SF1	Structure of matter	Mezei, F.; Russina, M.	Neutronenoptisches Bauelementanordnung zur gezielten spektralen Gestaltung von Neutronenstrahlen oder -pulsen DE: 10203591	23.01.02	18.09.08
SF6	Structure of matter	Behne, D.; Kyriakopoulos, A.; Pfeifer, H.	Neue Form des PHGPx-Proteins als diagnostischer Marker bei männlicher Infertilität DE: 10107186	15.02.01	05.06.08

## Patent applications

Dep.	HGF-Programme	Inventor	Title	Date of filing
SE1	Energy	Berghold, J.; Berginski, M.; Gall, S.; Hüpkes, J.; Lee, K.; Muske, M.; Rech, B.	T-stabiles ZnO WO: PCT/DE2008/000876	23.05.08
SE1	Energy	Lips, K.; Stangl, R.	Einseitig kontaktierte Dünnschicht-Solarzelle, Verfahren zur Herstellung und serienvorschaltetes Dünnschicht-Solarmodul DE: 102008035327.2 DE: 102008060404.6-33	01.12.08
SE1	Energy	Stangl, R.	Nadelkontakteierung DE: 102008051521.3-33	13.10.08 Prior application
SE2	Energy	Lux-Steiner, M.C.; Rusu, M.	Organische Solarzelle WO: PCT/DE2008/000373 DE: 102008012417.6	29.02.08
SE2	Energy	Fuertes Marrón, D.; Guenther, E.; Lux-Steiner, M.C.; Parisi, J.; Weiler, R.; Zrenner, E.	Implantierbares System zur Anregung von Neuronen WO: PCT/EP2008/003141	18.04.08
SE2	Energy	Belaïdi, A.; Dittrich, T.; Lux-Steiner, M.C.	Verfahren zum nasschemischen Ätzen von TiO <sub>2</sub> -Dünnschichten und TiO <sub>2</sub> -Partikeln sowie Ätzmittel WO: PCT/DE2008/000875	23.05.08
SE2	Energy	Aichele, C.; Chen, J.; Lux-Steiner, M.C.	Array aus vertikalen UV-Leuchtemitterdioden und Verfahren zu seiner Herstellung WO: PCT/DE2008/001108	02.07.08
SE2	Energy	Fostopoulos, K.; Johnev, B.	Passivierungsschicht für eine transparente leitfähige Oxidschicht in einem Bauelement mit organischer aktiver Schicht WO: PCT/DE2008/001314	08.08.08
SE2	Energy	Aé, L.; Chen, J.; Lux-Steiner, M.C.	Elektrodepositionsverfahren zur Herstellung von nanostrukturiertem ZnO DE: 102008010287.3-45	21.02.08 Prior application
SE2	Energy	Allsop, N.; Fischer, C.-H.; Gledhill, S.; Lux-Steiner, M.C.	Chemisches Dampfabscheide-Verfahren unter Atmosphärendruck zur Herstellung einer n-halbleitenden Metallsulfid-Dünnschicht DE: 102008017076.3-45	01.04.08 Prior application
SE2	Energy	Allsop, N.; Fischer, C.-H.; Gledhill, S.; Lux-Steiner, M.C.	Verfahren und Anordnung zur Herstellung einer n-halbleitenden Indiumsulfid-Dünnschicht DE: 102008017077.1-43	01.04.08 Prior application
SE2	Energy	Aé, L.; Chen, J.; Fischer, C.-H.; Lux-Steiner, M.C.	Elektrodepositionsverfahren zur Herstellung von nanostrukturiertem ZnO DE: 102008029234.6	19.06.08 Prior application

<b>Dep.</b>	<b>HGF-Programme</b>	<b>Inventor</b>	<b>Title</b>	<b>Date of filing</b>
SE3	Energy	Abou-Ras, D.; Hesse, R.; Schock, H.-W.; Unold, T.	Verfahren zur in-situ-Bestimmung der stofflichen Zusammensetzung von optisch dünnen Schichten, Anordnungen zur Durchführung und .. WO: PCT/DE2008/001130	09.07.08
SE3	Energy	Kötschau, I.; Rodriguez-Alvarez, H.	Vakuum-Druckmessvorrichtung für einen RTP-Vakuumofen DE: 102008024204.7 DE: 102008029028.9-52	18.06.08
SE4	Energy	Chemseddine, A.	Chemische Herstellung von Nanosäulen DE: 102008037177.7-41	09.08.08 Prior application
SE5	Energy	Aggour, M.; Lewerenz, H.-J.; Skorupska, K.	Verfahren zur Herstellung eines photoaktiven Schichtenverbunds, photoaktiver Schichtenverbund und Anwendung DE: 102008004340.0-33	09.01.08 Prior application
SE5	Energy	Bogdanoff, P.; Fiechter, S.; Herrmann, I.; Kramm, U.	METHOD FOR PREPARING FUEL CELL ELECTRODE CATALYST AND SOLID POLYMER FUEL CELL WO: PCT/JP2008/063935	29.07.08 Prior application
SE5	Energy	Brunkens, S.; Ellmer, K.; Mientus, R.	Texturiertes Wachstum von Schichtgitterhalbleitern auf Metallschichten DE: 102008051520.5-33	13.10.08 Prior application
SE5	Energy	Henkel, K.; Lewerenz, H.-J.; Müller, K.; Schmeißer, D.	Solarzelle mit elektrostatischen Lokalfeldern im photoaktiven Bereich DE: 102008060179.9-33	30.11.08 Prior application
SE6	Energy	Andres, S.; Lehmann, C.; Pettenkofer, C.	Verfahren zur Herstellung eines eine mindestens ZnO enthaltende Zweifach-Pufferschicht aufweisenden Heterokontaktes und WO: PCT/DE2008/002080	10.12.08
SF1	Structure of matter	Krist, T.	Strahlungsoptisches Bauelement zur Beeinflussung von Strahlung in Bezug auf deren Wellenlängenspektrum DE: 102008052410.7-54	21.10.08 Prior application
SF1	Structure of matter	Krist, T.	Anordnung zur Polarisation eines Neutronenstrahls mit hoher Divergenz DE: 102008064101.4	19.12.08 Prior application
SF3	Structure of matter	Banhart, J.; Helwig, H.M.; Seeliger, H.-W.	Aluminiumlegierung für Metallschäume, ihre Verwendung und Verfahren zur Herstellung DE: 102008027798.3-24	11.06.08 Prior application
SF8	Structure of matter	Roth, M.; Schiwietz, G.; Staufenbiel, F.	Elektrostatischer Analysator für geladene Teilchen, Spektrometer und Monochromator mit einem solchen Analysator DE: 102008058144.5-54	20.11.08 Prior application

## Academic Education

### Lectures, Courses, ...

Dep.	Lecturer	Topic	Course	University	Hrs/week
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Summer Term 2008					
SF2	Tennant, A.	Ausgewählte Kapitel der Neutronenstreuung (Magnetismus, Phasenübergänge)	seminar	TU-Berlin	2
SF3	Banhart, J.	Technologie der metallischen Leichtbauwerkstoffe (II) - Modul "Prozesstechnik metallischer Werkstoffe III"	lecture	TU-Berlin	2
SF3	Banhart, J.	Seminar Moderne Werkstoffe: Herstellung und Charakterisierung	seminar	TU-Berlin	2
SF3	Genzel, C.	Einsatz von röntgen- und neutronographischen Verfahren in der Werkstoffanalytik	lecture	TU-Berlin	2
SF3	Manke, I.; Kardjilov, N.	Praktikum Tomographie und Radiographie	lab course	TU-Berlin	3
SF3	Schumacher, G.	Werkstoffe für Hoch- und Ultrahochtemperatur-Anwendungen	seminar	TU-Berlin	2
SF3	Schumacher, G.	Werkstoffe für Hoch- und Ultrahochtemperatur-Anwendungen	lecture	TU-Berlin	2
SF6	Kyriakopoulos, A.	Biochemie von Spurenelementen	lecture	FU-Berlin	1
SF6	Kyriakopoulos, A.	Biochemie von Spurenelementen	lab course	FU-Berlin	5
SF6	Kyriakopoulos, A.; Behne, D.	Doktorandenseminar: Ausgewählte Gebiete der Spurenelementforschung	seminar	FU-Berlin	1
SF8	Schiwietz, G.	Grundlagen zu den Physikalischen Grundpraktika 2 + 3	lecture	TU-Berlin	2
SFN1	Lake, B.; Siemensmeyer, K.	Neutronen als Sonder zur Untersuchung von Kondensierter Materie	lecture	TU-Berlin	4
SFN1	Lake, B.	29th HMI School on Neutron Scattering	tutorial	HMI Berlin	2
SE1	Nickel, N.H.	Grundlagen der Photovoltaik	lecture	TU-Berlin	2
SE1	Rech, B.	Photovoltaik II	lecture	TU-Berlin	2
SE1	Rech, B.	Photovoltaik II	seminar	TU-Berlin	2
SE2	Dittrich, T.; Hannappel, T.	Einführung und Grenzflächenaspekte der Photovoltaik	lecture	FU-Berlin	2
SE2	Fischer, C.-H.	Quantitative Analyse	lecture	FU-Berlin	2
SE2	Lux-Steiner, M.C.	Lehrseminar A: Erneuerbare Energien	seminar	FU-Berlin	2
SE2	Sadewasser, S.	Fortgeschrittenen Praktikum Teil B (Versuch Solarzellen)	lab course	FU-Berlin	2
SE2	Schedel-Niedrig, T.	Photovoltaik - Solarstrahlung und Halbleitereigenschaften - Solarzellenkonzepte	lecture	TU-Berlin	2

<b>Dep.</b>	<b>Lecturer</b>	<b>Topic</b>	<b>Course</b>	<b>University</b>	<b>Hrs/week</b>
SE3	Schock, H.-W.; Unold, T.; Klaer, J.	Herstellung einer Solarzelle	lab course	TU-Berlin	3
SE3	Schock, H.-W.; Schmidt, S.; Stephan, C.	Photovoltaik II	lecture	TU-Berlin	3
SE4	Hannappel , T.	Einführung und Grenzflächenaspekte der Photovoltaik	tutorial	FU-Berlin	2
SE4	Hannappel , T.	Einführung und Grenzflächenaspekte der Photovoltaik	lecture	FU-Berlin	2
SE5	Lewerenz, H.J.	Elektrochemische Nanotechnologie	lecture	TU-Berlin	2
SE5	Lewerenz, H.J.	Nanoskalige Dielektrische Barrieren	seminar	BTU Cottbus	2
SE5	Lewerenz, H.J.	Grenzflächenuntersuchungen an energiemittelnden Halbleiterstrukturen	seminar	TU-Berlin	2
SE5	Lewerenz, H.J.	Photovoltaische Solarzellen	lecture	TU-Berlin	2
SE5	Munoz, A.	Solarzellen	lecture	BTU Cottbus	2
SE5	Tributsch, H.	Bionische Forschung: Strategien zur regenerativen Energienutzung	lecture	FU-Berlin	2
SE6	Pettenkofer, C.	Einführung in die Physik2	lecture	TU-Cottbus	4
SE6	Pettenkofer, C.	Einführung in die Physik2	tutorial	TU-Cottbus	2

**Winter Term 2008/2009**

SF1	Schneider, R.	Werkstoffanalytik mit Neutronen, Photonen, Elektronen und Ionen	lecture	TFH-Berlin	4
SF3	Banhart, J.; Garcia- Moreno, F.	Technologie der metallischen Leichtbauwerkstoffe (I) - Modul "Prozesstechnik metallischer Werkstoffe III"	lecture	TU-Berlin	4
SF3	Manke, I.; Kardjilov, N.; Hilger, A.	Tomographie und Radiographie	lecture	TU-Berlin	4
SF6	Kyriakopoulos, A.	Biochemie von Spurenelementen	lecture	FU-Berlin	1
SF6	Kyriakopoulos, A.; Behne, D.	Doktorandenseminar: Ausgewählte Gebiete der Spurenelementforschung	seminar	FU-Berlin	1
SF6	Kyriakopoulos, A.	Biochemie von Spurenelementen	lab course	FU-Berlin	5
SF8	Mahnke, H.-E.; Heyn, M.	Einführung in die Kern- und Teilchenphysik	lecture	FU-Berlin	4
SF8	Schiwietz, G.	Grundlagen zu den Physikalischen Grundpraktika 2 + 3	lecture	TU-Berlin	2
SFN1	Lake, B.; Siemensmeyer, K.	Neutronenstreuung und Dynamik kondensierter Materie	seminar	TU-Berlin	4
SE1	Gall, S.	Photovoltaik - Grundlagen und kristalline Silizium-Solarzellen (PV1)	lecture	TU-Berlin	2
SE1	Nickel, N.	Physik für Chemiker und Lebensmittelchemiker	lecture	TU-Berlin	4
SE2	Dittrich, T.; Hannappel, T.	Einführung und Grenzflächenaspekte der Photovoltaik	lecture	FU-Berlin	2

<b>Dep.</b>	<b>Lecturer</b>	<b>Topic</b>	<b>Course</b>	<b>University</b>	<b>Hrs/week</b>
SE2	Dittrich, T.	Laboratory Practical in Photovoltaics	lab course	TU-Berlin	2
SE2	Dittrich, T.	Basics of Solar Cells	seminar	TU-Berlin	1
SE2	Dittrich, T.	Photovoltaic Workshop (lectures, lab practicals, seminars, excursion)	lecture	Kasetsart University (Thailand)	5
SE2	Dittrich, T.	PV Systems: Solar cells	lecture	TU-Berlin	2
SE3	Schock, H.-W.; Unold, T.; Weber, A.	Herstellung einer Siliziumsolarzelle	lab course	TU-Berlin	3
SE4	Hannappel , T.	Einführung und Grenzflächenaspekte der Photovoltaik	tutorial	FU-Berlin	2
SE4	Hannappel , T.	Einführung und Grenzflächenaspekte der Photovoltaik	lecture	FU-Berlin	2
SE5	Fiechter, S.	Materialien für Solar- und Brennstoffzellen - Präparation u. physikalisch-chemische Charakterisierung	lecture	TU-Berlin	2
SE5	Fiechter, S.	Energy Conversion in Fuel Cells: Structure - Activity Relationship of Pt - free Electrocatalysts	lecture	BTU-Cottbus	2
SE5	Lewerenz, H.J.	Nanoskalige Dielektrische Barrieren	seminar	BTU Cottbus	2
SE5	Lewerenz, H.J.	Grenzflächenuntersuchungen an energieumwandelnden Halbleiterstrukturen	seminar	TU-Berlin	2
SE5	Munoz, A.	Solarzellen	lecture	BTU Cottbus	2
SE6	Pettenkofer, C.	Einführung in die Physik 1	lecture	TU-Cottbus	4
SE6	Pettenkofer, C.	Einführung in die Physik 1	tutorial	TU Cottbus	2

## Exams

Dep.	Author	Title	University	Date
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<b>Habilitation</b>				
SF6	Nunes Bordallo, H.	Structure et Dynamique à l'échelle Microscopique des Systèmes Incommensurables, des Oxydes à Magnéto-Résistance Géantes et des Systèmes Biologiques	Universite Montpellier II	03/08

<b>Ph. D.</b>				
SF3	Denks, I.A.	Entwicklung einer Methodik zur Erfassung randschichtnaher Eigenspannungsverteilungen (z) in polykristallinen Werkstoffen mittels energiedispersiver Diffraktion	Universität Kassel	06/08
SF6	Grbavac, I.	Untersuchungen zur Identifizierung und Lokalisierung von Metallo- und Selenoproteinen in der Prostata und Prostata-Zell-Linien	FU-Berlin	08/08
SE1	Ruske, F.	Magnetronputtern von hochleitfähigen ZnO:Al-Schichten für die Photovoltaik	Uni Gießen	10/08
SE1	Weizman, M.	Properties of laser-crystallized polycrystalline SiGe thin films	TU-Berlin	06/08
SE1	Yang, F.	Untersuchungen zu einer neuartigen organischen Emitter-/Si-Heterostruktur-Solarzelle	HU-Berlin	12/08
SE2	Camus, C.	Spray ILGAR Growth and Raman Spectroscopy of CuInS2 Thin Films	FU-Berlin	10/08
SE2	Hübener, K.	Molekulare Spintronik mit endohedralen Fullerenen: Anordnung und Spindetektion	FU-Berlin	10/08
SE2	Mainz, R.	In-situ Analyse und Wachstum photovoltaischer Absorber mit Bandlückengradienten	FU-Berlin	07/08

<b>Diploma</b>				
SF3	Kandemir, T.	Untersuchung von Gefügestrukturen in metallischen Werkstoffen	FH Aachen	08/08
SF6	Strasser, A.	Verteilung von Spurenelementen und Spurenelementproteinen im gastrointestinalen Trakt der Ratte	TFH-Berlin	04/08
SE1	Haschke, J.	Technologieentwicklung rückseitenkontakteierte amorph/kristalline Silizium Heterosolarzelle - photolithographische Zelloptimierung	FHTW Berlin	05/08
SE1	Hänel, T.	Spannungs- und intensitätsabhängige spektrale Empfindlichkeit von poly-Si Dünnenschichtsolarzellen	FHTW Berlin	04/08

<b>Dep.</b>	<b>Author</b>	<b>Title</b>	<b>University</b>	<b>Date</b>
SE1	Jakobs, G.	Elektrochemische Abscheidung von ZnO/Polypyrrol-Hybridschichten auf Silizium-Oberflächen	TFH-Berlin	03/08
SE1	Köhler, R.	Einfluss des gesputterten ZnO:AL auf die Eigenschaften der ZnO/a-Si bzw. a-Si/c-Si-Grenzfläche	TU Ilmenau	12/08
SE1	Sánchez Vicens, A.	Solid Phase Crystallization of silicon on ZnO:Al substrate for thin film solar cells	TU-Berlin	11/08
SE1	Warzecha, M.	Strukturelle und optische Charakterisierung von ZnMgO-Schichten	TU-Berlin	08/08
SE1	Weber, T.	Entwicklung eines RTP-Prozessschrittes (rapid thermal processing) zur Optimierung von polykristallinen Silizium-Dünnenschichtsolarzellen	FHTW Berlin	04/08
SE2	Afshar, M.	Examina: > Herr Maziar Afshar > Wachstum und Charakterisierung von Multischicht Nanostrukturen aus CuGaSe2 und CuInSe2	FU-Berlin	12/08
SE2	Aé, L.	n-ZnO/p-CuSCN-Nanodioden als Modellsystem für auf Zinkoxid basierende UV-LEDs	FU-Berlin	12/08
SE2	Bochukov, I.	"Enhancement of Zn-Phthalocyanine/Fullerene- C60 photovoltaic devices through chemical molecular design	University of Chemical Technology and Metallurgy, Sofia, Bul.	12/08
SE2	Herzog, C.	Untersuchung von Ladungstrennung und Ladungstransport in ultradünnen anorganischen Nanokompositsschichten	FU-Berlin	11/08
SE2	Kieven, D.	Solarzellen mit extrem dünnen sulfidischem Absorber auf Zinkoxid-Nanorod-Arrays	FU-Berlin	04/08
SE2	Krüger, M.	Industrierelevante Spray-ILGAR-Pufferschichten an Chalkopyrit-Dünnenschichtsolarzellen	FHTW	06/08
SE2	Mete, T.	Strukturprofil ultra-dünner Metall-Phthalozyaninfilme	Universität Potsdam (Naturwissenschaftl.-Mathemat. Fakultät)	01/08
SE2	Schindler, W.	Einfluss der ITO-Terminierung und Absorbermorphologie in	Universität Potsdam	12/08
SE3	Kling, P.	Statistische Versuchsplanung im F+E-Umfeld: Stabilität von gesputterten Molybdän-Schichten als Rückkontakt für flexible CIGSe Dünnenschichtsolarzellen	TU-Berlin	08/08
SE3	Krauth, H.	Herstellung von Cu2ZnSnS4 Dünnenschichten für photovoltaische Anwendung	FHTW-Berlin	08/08
SE3	Nichterwitz, M.	Korrelation von Microstrukturen und elektrischen Eigenschaften von CulnGaSe2-Absorberschichten in Dünnenschichtsolarzellen	FU-Berlin	08/08

<b>Dep.</b>	<b>Author</b>	<b>Title</b>	<b>University</b>	<b>Date</b>
SE3	Suchaneck, O.	Homogenitätsuntersuchungen an großflächigen CuInS <sub>2</sub> -Dünnenschichten für die Photovoltaik	FHTW-Berlin	04/08
SE5	Engel, N.	Chemische Modifizierung und Effizienz-Untersuchungen von Farbstoffsolarzellen	FU-Berlin	05/08
SE5	Jaiser, B.	Untersuchung von Proteinen auf vorkonditionierten Halbleiteroberflächen	FU-Berlin	11/08
SE5	Leidel, N.	(Photo)elektrochemische Untersuchungen zur Wasserspaltung an Manganverbindungen	FU-Berlin	07/08
SE5	Stumpf, P.	Untersuchungen tensilen Wassers in nanoporösen Materialien mittels Raman-Spektroskopie	FU-Berlin	07/08

<b>Master Thesis</b>				
SE1	Sixtensson, D.	Ultrathin SiO <sub>2</sub> layers on Si(111): Preparation, Interface Gap States, Influence of Passivation and Photoelectric Properties	Chalmers University of Technology Göteborg, Sweden	01/08
SE2	Gimpl, G.	Präparation von Puffer- und Fensterschichten für Chalkopyrit-Dünnenschicht-Solarzellen mit Industrie-relevanten low-cost Verfahren	TFH-Berlin	10/08
SE2	Lähnemann, J.	Spectrally Resolved Current Loss Mechanisms in Cu(In,Ga)Se <sub>2</sub> Thin-film Solar Cells	FU-Berlin	12/08
SE3	Baumann, T.	Herstellung metallischer Dünnenschichten zur Verwendung als Rückkontakt für flexible Cu(In,Ga)Se <sub>2</sub> Dünnenschichtsolarzellen auf Polyimid-Folie	TFH-Berlin	10/08

## **Summer students etc.**

The 20<sup>th</sup> HZB Summer Programme for undergraduate students took place from August 4<sup>th</sup> to September 26<sup>th</sup>, 2008. 32 students, including 21 from abroad, joined in actual research projects and participated in a series of seminars informing about the activities of the HZB.

Beyond the Summer Programme, 16 student trainees and 22 high school trainees visited the HZB for individual training projects.

## Awards

<b>Dep.</b>	<b>Name</b>	<b>Award</b>
SF3	Manke, I.	Best Poster 2008, Brennstoffzellen-Allianz Baden-Würtemberg, 18.11.2008
SE1	Fehr, M.	Poster Award, 4th European EPR Federation Summer School in Advanced Techniques in EPR, St. Andrews, Scotland, 28.08.2008
SE1	Sánchez Vicens, A.	Prize to the best student of the School of industrial engineering, VIII Prizes of the Social Council of the Politecnical University of Valencia, 26.11.2008
SE2	Grimm, A.	Young Scientist Poster Award, 2nd International Symposium on Transparent Conductive Oxides Crete, Greece, 22.10.2008 - 26.10.2008, 24.10.2008
SE3	Eisenbarth, T.	Poster Award, bestes Poster im Symposium L des E-MRS Spring Meeting Strasbourg, Organisation des Symposium L des E-MRS Spring Meeting in Strasbourg, 29.05.2008
SE4	Döscher, H	LayTec - in-situ monitoring award, Lay Tec , 05.06.2008
SE4	Hannappel, T.	LayTec - in-situ monitoring award, Lay Tec, 05.06.2008
SE5	Bogdanoff, P.	Technologie-Transferpreis, HMI, 14.02.2008

## Participation in external scientific bodies and committees

Dep.	Name	Committee / Board / Scientific body
SF1	Habicht, K.	ILL College 4 Subcommittee
SF1	Pappas, C.	PNCMI 2008 Program Committee
SF1	Pappas, C.	NIST Nutzer Ausschuss
SF1	Schneider, R.	VDI Arbeitskreis Tomographie, Sprecher
SF1	Schneider, R.	STRAINET
SF1	Schneider, R.	VDI Fachbeirat "Angewandte zerstörungsfreie Werkstoff- u. Bauteilprüfung"
SF1	Strobl, M.	External Evaluation Committee for the Hellenic Quality Assurance Agency for Higher Education (HQAA)
SF2	Hoffmann, J.-U.	NeXus International Advisory Committee
SF2	Holub-Krappe, E.	International Executive XAFS Committee of the Union of Crystallography
SF2	Holub-Krappe, E.	International Advisory Committee „14th Int. Conf. On X-ray Absorption Fine Structure“
SF2	Holub-Krappe, E.	International Advisory Board and Program Committee of the “Workshop on High temporal and spatial resolution of ultrathin magnetic films properties?
SF2	Holub-Krappe, E.	International Scientific Committee of the Conference “X08: Int. Conf. on X-Ray and Inner-Shell Processes”
SF2	Holub-Krappe, E.	International Scientific Committee, Symposium "R: X-ray Techniques for Advanced Materials, Nanostructures and Thin Films: from Laboratory Sources to Synchrotron Radiation "
SF2	Holub-Krappe, E.	Executive Committee of the International X-Ray Society
SF2	Holub-Krappe, E.	Int. Program committee for the IUCr2008
SF2	Smeibidl, P.	Design Review of Zeemans Project at Spallation Neutron Source (Oak Ridge, Tennessee)
SF2	Tennant, A.	PNCMI2008 International Advisory
SF2	Tennant, A.	Scientific Advisory Committee for the advanced magnets project at ISIS
SF3	Banhart, J.	Arbeitsgemeinschaft Metall- und Materialphysik der DPG
SF3	Banhart, J.	Programme Committee of the International Conference on Aluminium Alloys 11
SF3	Banhart, J.	DGM-Arbeitskreis Tomographie
SF3	Banhart, J.	Organisation DFG-Symposium "Nanoanalytics by means of small-angle scattering of X-rays, neutrons and electrons"
SF3	Garcia-Moreno, F.	AK "Zelluläre Metalle" des Fachausschusses "Metallische Verbundwerkstoffe und zelluläre Metalle" der DGM
SF3	Garcia-Moreno, F.	DGM-Fachausschuss "Strahllinien für die Werkstoffcharakterisierung"
SF3	Genzel, C.	International Committee of the MECA SENS V Conference (10.-12.11.2009)
SF3	Kardjilov, N.	Consultant's Meeting on Non Destructive and Analytical Techniques using Neutrons
SF3	Kardjilov, N.	Member of Board of Directors of International Society for Neutron Radiology
SF3	Manke, I.	DGM-Fachausschuss "Strahllinien für die Werkstoffcharakterisierung"

<b>Dep.</b>	<b>Name</b>	<b>Committee / Board / Scientific body</b>
SF3	Manke, I.	DGZfP-Fachausschuss Durchstrahlungsprüfung UA Bildverarbeitung in der Durchstrahlungsprüfung UA Computertomographie
SF3	Wanderka, N.	National Committee of RQ13, 13th International Conference on Rapid Quenched & Metastable Materials
SF3	Wanderka, N.	Gast-Editor in "Ultramicroscopy" für Proceedings IFES 2008
SF3	Wanderka, N.	International Steering Committee of Field Emission Society
SF3	Wanderka, N.	National Committee of THERMEC 2009
SF3	Wiedenmann, A.	Scientific council Institut-Laue-Langevin Subcommittee 1, Grenoble, France
SF6	Kyriakopoulos, A.	4th international Conference on Trace Element Speciation in Biomedical, Nutritional and Environmental Sciences
SF8	Mahnke, H.-E.	Komitee für Forschung mit Nuklearen Sonden und Ionenstrahlen (KFSI)
SF8	Mahnke, H.-E.	Wissenschaftliches Komitee zur Vorbereitung einer deutsch-französischen Sommerschule 2009
SF8	Schiwietz, G.	International Committee" der Konferenzserie "International Conference on Atomic Collisions in Solids " (ICACS)
SF8	Schiwietz, G.	"International Scientific Committee" der Konferenzserie "Swift Heavy Ions in Matter " (SHIM)
SFN1	Lake, B.	NIST reactor panel
SE1	Gall, S.	Europäische Photovoltaikkonferenz - 23rd EU PVSEC
SE1	Lips, K.	23th International Conference on Amorphous and Nanocrystalline Semiconductors (ICANS23)
SE1	Lips, K.	European Summer School on Photovoltaics and New Concepts of Quantum Solar Energy Conversion 2008
SE1	Lips, K.	1st International Workshop on the Staebler-Wronski-Effekt
SE1	Rech, B.	Europäische Photovoltaikkonferenz - 23rd EU PVSEC
SE1	Rech, B.	Tagungsbeirat des OTTI-Anwenderforums
SE1	Rech, B.	Prüfungskomitee Uni Leuven
SE1	Rech, B.	Europäische Photovoltaikkonferenz
SE1	Rech, B.	Industrieworkshop "Dünnschichttechnologien in der Si-Photovoltaik"
SE1	Rech, B.	Advisory Board der PV Industry Forum (Intersolar) München, 10.-12.6.08
SE1	Schlatmann, R.	PV Industry Forum, Munic 2008
SE2	Ennaoui, A.	Editorial Board in Solar Energy Materials and Solar Cells
SE2	Ennaoui, A.	Chairman for the Session: Alternative Chalcogenides in the EMRS Spring Meeting 2008
SE2	Fostiropoulos, K.	Advisory Board der IC4N 2008, Halkidiki, Greece
SE2	Lux-Steiner, M.C.	1. Vorsitzende des Vereins Arbeitsgemeinschaft Solare Materialien (ASM)
SE2	Lux-Steiner, M.C.	Wissenschaftlicher Beirat des Forschungszentrums Rossendorf e.V. (FZR)
SE2	Lux-Steiner, M.C.	Eidgenössische Energieforschungskommission CORE in der Schweiz
SE2	Lux-Steiner, M.C.	Vorsitzende des Wissenschaftlichen Beirats des Berliner Instituts für Kristallzüchtung (IKZ) in der Wissenschaftsgemeinschaft Gottfried Wilhelm Leibniz
SE2	Lux-Steiner, M.C.	Wissenschaftlicher Beirat der Sulfurcell Solartechnik GmbH

<b>Dep.</b>	<b>Name</b>	<b>Committee / Board / Scientific body</b>
SE2	Lux-Steiner, M.C.	Tagungsband Symposium "Nanotechnologie für eine nachhaltige Energieversorgung", 29.-30.11.2007, Berlin
SE2	Lux-Steiner, M.C.	Scientific Committee and Executive Committee, 23rd European PV Solar Energy Conference
SE2	Lux-Steiner, M.C.	Jury EXIST-Forschungstransfer
SE2	Lux-Steiner, M.C.	Kuratoriumsmitglied des Forschungsverbundes Berlin e.V.
SE2	Lux-Steiner, M.C.	Vorsitz Wissenschaftlicher Beirat des Instituts für Kristallzüchtung
SE2	Lux-Steiner, M.C.	Gruppenvorsitz Sommerakademie St. Johann 2008
SE2	Lux-Steiner, M.C.	Project Coordinator ATHLET
SE2	Lux-Steiner, M.C.	Zwischenevaluation des Forschungsschwerpunktes „Nanostrukturierte Materialien“ der Initiative des Landes Sachsen-Anhalt zur Förderung von Netzwerken wissenschaftlicher Exzellenz
SE2	Lux-Steiner, M.C.	FEE-Innovationspreis 2008
SE2	Sadewasser, S.	Scientific Committee of the 16th International Conference on Ternary and Multinary Compounds (ICTMC), September 15-19, 2008, Technical University Berlin, Germany
SE2	Sadewasser, S.	Organizer "Workshop on Kelvin Probe Force Microscopy (Satellite Meeting to the 11th International Conference on Non-contact Atomic Force Microscopy - NC-AFM)" in Madrid
SE2	Sadewasser, S.	Program committee "11th International Conference on Non-contact Atomic Force Microscopy - NC-AFM" in Madrid
SE2	Sadewasser, S.	Program Committee "Workshop on Kelvin Probe Force Microscopy (Satellite Meeting to the 11th International Conference on Non-Contact Atomic Force Microscopy - NC-AFM" in Madrid
SE2	Sadewasser, S.	Organizing Committee of the 16th International Conference on Ternary and Multinary Compounds (ICTMC), September 15-19, 2008, Technical University Berlin, Germany
SE2	Schedel-Niedrig, T.	Eurec Agency
SE3	Schock, H.-W.	ICTMC International Conference on Ternary and Multinary Compounds
SE3	Schock, H.-W.	WCPEC World Conference on Photovoltaic Energy Conversion - Organizing Committee
SE3	Schock, H.-W.	E-MRS European Materials Research Society
SE3	Schock, H.-W.	Mitherausgeber der Zeitschrift "Progress in Photovoltaic Research and Application"
SE3	Schock, H.-W.	HGF Programm Erneuerbare Energien, Topic Sprecher PV
SE3	Schock, H.-W.	Programmbeirat Energie FZ Jülich
SE3	Schock, H.-W.	Conference Committee EU-PV SEC European Photovoltaic Solar Energy Conference
SE3	Schock, H.-W.	Research Council of Norway
GF-W	Steiner, M.	DAAD
GF-W	Steiner, M.	Commission on Neutron Scattering of the International Union of Crystallography, USA
GF-W	Steiner, M.	Innovationsrat des Ministeriums für Wirtschaft und Arbeit des Landes Sachsen-Anhalt
GF-W	Steiner, M.	Aufsichtsrat, BESSY GmbH Berlin
GF-W	Steiner, M.	Steering Committee, Institut Laue-Langevin (ILL), Grenoble, France

<b>Dep.</b>	<b>Name</b>	<b>Committee / Board / Scientific body</b>
GF-W	Steiner, M.	Wissenschaftlicher Beirat NSL-CARR (Neutron Scattering Laboratory-China Advanced Research Reactor) on Neutron Science & Technology and Management
PT	Denker, A.	Advisory Committee of the International Conference on Particle Induced X-ray Emission
PT	Denker, A.	Scientific Committee of the European Cyclotron Progress Meeting
PT	Denker, A.	Centre Européen d'Archaeometrie Liège Gutachter- o. Beratungsgremium
PT	Denker, A.	IGAS-Beirat
WTE	Wulf, F.	Conference Committee IEEE NSS/MIC 2008, Dresden, Exhibits Chair

## Scientific Conferences and Meetings organized by HZB

Dep.	Title	Type	Date
SF6	European Conference on Metalloproteomics	Conference	03.12.08 - 04.12.08
WTE	Studiengruppe für Elektronische Instrumentierung, Frühjahrstagung 2008  Dr. Friedrich Wulf	Conference	07.04.08 - 09.04.08
WTE	Studiengruppe für Elektronische Instrumentierung, Herbsttagung 2008  Dr. Friedrich Wulf	Conference	22.09.08 - 24.09.08

