

Supplement  
to the  
Annual Report 2006

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Supplement, Annual Report 2006

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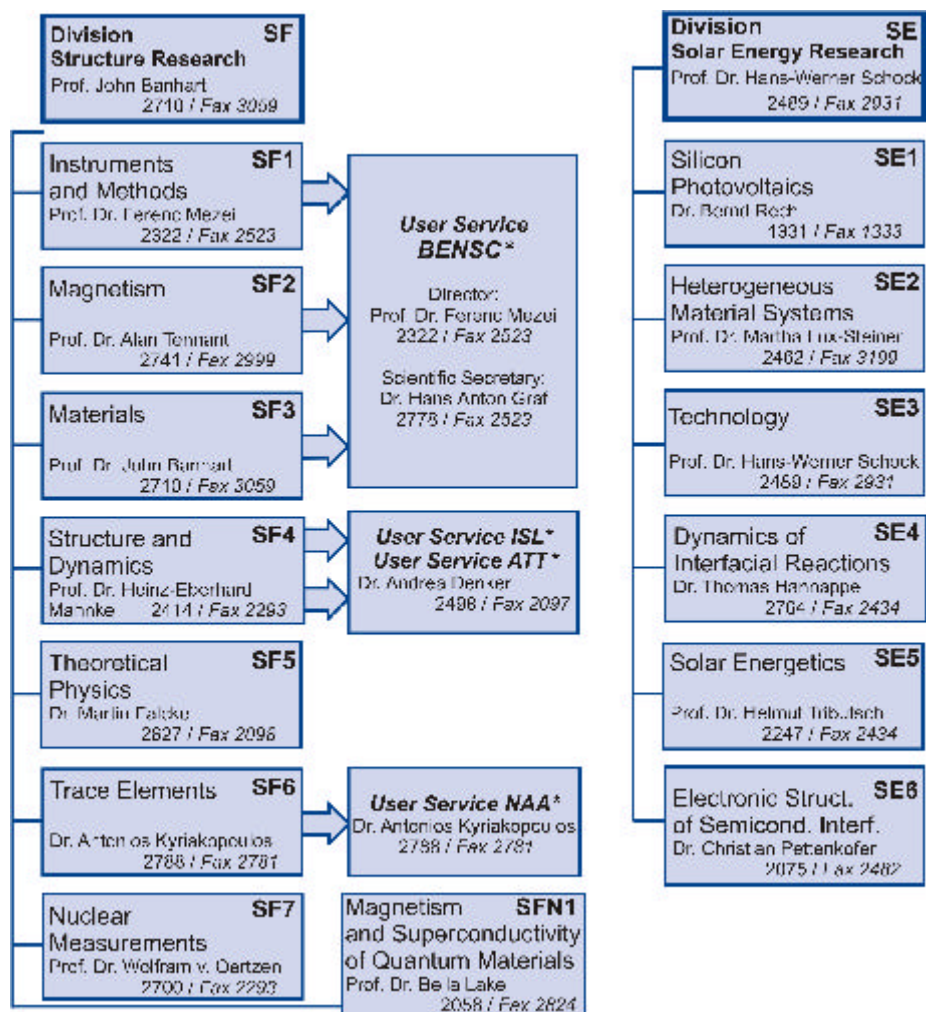
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## Preface

This supplement to the Annual Report 2006 is supposed to provide in addition to the scientific highlights of the HMI 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 2006 reads as follows:



\* ATT = Eye Tumour Therapy  
 BENS = Berlin Neutron Scattering Center  
 ISL = Ion Beam Laboratory  
 NAA = Neutron Activation Analysis

## R&amp;D-projects in the matrix of departments versus Helmholtz programmes

Dep.	Research fields and programmes				
	Structure of Matter: PNI		Health	Energy	
	Research	Large scale facilities	Cancer	Environ. Health	Renewable Energies
		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.Nanostructures	SF3.BENSC SF3.BESSY			
SF4	SF4.Dynamics SF4.Structures	ISL.User ISL.Development ISL.Accelerator SF4.BESSY	ISL.PPT		
SF5	SF5.Soft Matter SF5.Hard Matter SF5.Biosystems				
SF6		SF6.NAA		SF6.Analysis SF6.Proteins	
SF7	SF7.Q3D SF7.Detector				
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

*Jenichen, B. ; Takagaki, Y. ; Ploog, K.H. ; Darowski, N. ; Feyerherm, R. ; Zizak, I.*

##### **Nucleation at the phase transition near 40 °C in MnAs nanodisks**

Applied Physics Letters

89 (2006) 051915/1 - 3

*Kavecansky, V. ; Mihalik, M. ; Mat'as, S. ; Mitroova, Z. ; Lukacova, M.*

##### **Crystal structure and magnetism of Pr[Fe(CN)<sub>6</sub>] · 4D<sub>2</sub>O**

Zeitschrift für Kristallographie

Suppl. 23 (2006) 543 - 548

*Laurenze-Landsberg, C. ; Schmidt, C. ; Schröder-Smeibidl, B. ; Mertens, L.A.*

##### **BENSC neutrons for cultural heritage research: Neutron autoradiography of paintings**

Notiziario Neutroni e Luce di Sincrotrone

11 (2006) 24 - 27

*Tripadus, V. ; Radulescu, A. ; Pieper, J. ; Buchsteiner, A. ; Podlesnyak, A. ; Janssen, S. ; Serban A.*

##### **Molecular dynamics in triglycine sulphate by cold neutron spectroscopy**

Chemical Physics

322 (2006) 323 - 330

#### SF1.BENSC

*Andersen, A.H. ; Jensen, J. ; Jensen, T.B.S. ; Pinholt, R. ; Zimmermann, M.V. ; Noergaard Toft, K. ; Abrahamsen, A.B. ; Hedegard, P. ; Vorderwisch, P. ; Canfield, P.*

##### **Magnetic and quadrupolar ordering in TmNi<sub>2</sub>B<sub>2</sub>C**

Physica B 385-386 (2006) 63-65

385-386 (2006) 63 - 65

*Bentley, P.M. ; Kilcoyne, S.H.*

##### **Determination of hyperfine field distributions in amorphous magnets**

Journal of Physics: Condensed Matter

18 (2006) 7751 - 7759

*Bentley, P.M. ; Pappas, C. ; Habicht, K. ; Lelievre-Berna, E.*

##### **Evolutionary programming for neutron instrument optimisation**

Physica B

385-386 (2006) 1349 - 1351

*Boin, M. ; Haibel, A.*

##### **Compensation of ring artefacts in synchrotron tomographic images**

Optics Express

14 (2006) 12071 - 12075

*Chatterji, T. ; Koza, M.M. ; Demmel, F. ; Schmidt, W. ; Hoffmann, J.-U. ; Aman, U. ; Schneider, R. ; Dhalenne, G. ; Suryanarayanan, R. ; Revcolevschi, A.*

##### **Coexistence of ferromagnetic and antiferromagnetic spin correlations in La<sub>1.2</sub>Sr<sub>1.8</sub>Mn<sub>2</sub>O<sub>7</sub>**

Physical Review B

73 (2006) 104449/1 - 6



*Danilyan, G.V. ; Fedorov, A.V. ; Krakhotin, V.A. ; Pavlov, V.S. ; Brakhman, E.V. ; Karpikhin, I.L. ; Korobkina, E.I. ; Golub, R. ; Wilpert, T. ; Russina, M.*

**Search for scission neutrons using specific angular correlations in  $^{235}\text{U}$  fission induced by slow polarized neutrons**

Physics of Atomic Nuclei  
69 (2006) 1158 - 1160

*Fåk, B. ; Rüegg, Ch. ; Niklowitz, P.G. ; McMorro, D.F. ; Canfield, P.C. ; Bud'ko, S.L. ; Janssen, Y. ; Habicht, K.*

**Magnetic phase diagram of heavy-fermion YbAgGe**

Physica B: Condensed Matter 378-380 (SPEC. ISS.), pp. 669-670 (2006)  
378-380 (2006) 669 - 670

*Füzi, J. ; David, E. ; Kozłowski, T. ; Lewis, P. ; Messing, G. ; Mezei, F. ; Penttilä, S. ; Rosta, L. ; Russina, M. ; Török, Gy.*

**Neutron optical imaging study of neutron moderator and beam extraction system**

Physica B  
385-386 (2006) 1315 - 1317

*Golub, R. ; Gähler, R. ; Habicht, K. ; Klimko, S.*

**Bunching of continuous neutron beams**

Physics Letters A  
349 (2006) 59 - 66

*Henkel, F. ; Hermeking-Göbel, U. ; Lemke, P. ; Wilpert, T. ; Pietsch, C. ; Schneider, R.*

**E7 - New strain scanner at HMI - High q-resolution for phase-sensitive analysis of stress distributions**

Materials Science Forum  
524-525 (2006) 205 - 208

*Hofmann, M. ; Schneider, R. ; Seidl, G.A. ; Rebelo-Kornmeier, J. ; Wimpory, R.C. ; Garbe, U. ; Brokmeier, H.-G.*

**The new materials science diffractometer STRESS-SPEC at FRM-II**

2006, 1035 - 1037

*Hofmann, M. ; Seidl, G.A. ; Rebelo-Kornmeier, J. ; Garbe, U. ; Schneider, R. ; Wimpory, R.C. ; Wasmuth, U. ; Noster, U.*

**The new materials science diffractometer STRESS-SPEC at FRM-II**

Materials Science Forum  
524-525 (2006) 211 - 216

*Hoinkis, E. ; Röhl-Kuhn B.*

**In situ small-angle neutron scattering study of nitrogen adsorption and condensation in mesoporous silica glass CPG-10-75**

Journal of Colloid and Interface Science  
296 (2006) 256 - 262

*Jauch, W. ; Reehuis, M.*

**Electron density distribution in paramagnetic chromium: A gamma-ray diffraction study**

Physical Review B  
73 (2006) 085102/1 - 8

*Kartini, E. ; Arai, M. ; Mezei, F. ; Nakamura, M. ; Russina, M.*

**Structure and dynamics on superionic conducting phosphate glasses by neutron scattering**

Physica B  
385-386 (2006) 236 - 239

*Keppas, L.K. ; Katsareas, D.E. ; Wimpory, R.C. ; Anifantis, N.K. ; Youtsos, A.G.*

**Letterbox type repair weld finite element simulation and residual stress prediction**

Materials Science Forum  
524-525 (2006) 445 - 450

Lee, H.-Y. ; Biglari, F.R. ; Wimpory, R. ; Nikbin, K.M.

**Treatment of residual stress in failure assessment procedure**

Engineering Fracture Mechanics

73 (2006) 1755 - 1771

Levchanovsky, F.V. ; Litvinenko, E.I. ; Nikiforov, A.S. ; Gebauer, B. ; Schulz, Ch. ; Wilpert, Th.

**Software modules of DAQ PCI board (DeLiDAQ) for positive-sensitive MWPC detectors with delay line readout**

Nuclear Instruments and Methods in Physics Research, A

569 (2006) 900 - 904

McEwen, K.A. ; Jensen, J. ; Beirne, E.D. ; Allen, J.P. ; Habicht, K. ; Adroja, D.T. ; Bewley, R.I. ; Fort, D.

**Multiple magnetic singlet-singlet excitations in intermetallic PrNiSn**

Physical Review B

73 (2006) 014402/1 - 7

Nakamura, M. ; Arai, M. ; Kartini, E. ; Taylor, J.W. ; Russina, M.

**Unique vibrational excitations in superionic conducting glass**

In: Flow dynamics : the second international conference on ... Sendai, Japan, 16 - 18 November 2005, eds.

Tokuyama, M. [u.a.]

American Institute of Physics, Melville, N.Y., 2006, 504 - 507

Nakamura, M. ; Iwase, H. ; Arai, M. ; Kartini, E. ; Russina, M. ; Yokoo, T. ; Taylor, J.W.

**Low energy vibrational excitations characteristic of superionic glass**

Physica B

385-386 (2006) 552 - 554

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

**Evaluation of novel post weld heat treatment in ferritic steel repair welds based on neutron diffraction**

In: Residual Stress and Its Effects on Fatigue and Fracture : Proceedings of a Special Symposium held within the 16th European Conference of Fracture -- ECF16, Alexandroupolis, Greece, 3-7 July, 2006, eds. Youtsos, A.G.

Springer, Berlin, 2006, 55 - 66

Ohms, C. ; Truman, C. ; Wimpory, R.C. ; Gripenberg, H. ; Smith, D. ; Youtsos, A.G.

**Measurement of residual stress in as received and repaired clad components**

In: Proceedings of PVP2006-ICPVT-11 2006 ASME Pressure Vessels and Piping Division Conference July 23-27, 2006, Vancouver, BC, Canada [Ausg. auf CD]

2006, 1 - 9

Pappas, C. ; Ehlers, G. ; Mezei, F.

**Neutron-spin-echo spectroscopy and magnetism**

In: Neutron scattering from magnetic materials, eds. Chatterji, T.

Elsevier, Amsterdam, 2006, 521 - 542

Peters, J. ; Lieutenant, K. ; Clemens, D. ; Mezei, F.

**EXED - the new Extreme Environment Diffractometer at the Hahn-Meitner-Institut Berlin**

Zeitschrift für Kristallographie

Suppl. 23 (2006) 189 - 194

Poeste, T. ; Wimpory, R.C. ; Schneider, R.

**The new and upgraded neutron instruments for material science at HMI - current activities in cooperation with industry**

Materials Science Forum

524-525 (2006) 223 - 228

*Rehfeldt, F. ; Steitz, R. ; Armes, S.P. ; von Klitzing, R. ; Gast, A.P. ; Tanaka, M.*

**Reversible activation of diblock copolymer monolayers at the interface by pH modulation, 2: Membrane interactions at the solid/liquid interface**

Journal of Physical Chemistry B.; (Article); 2006; 110(18); 9177-9182.  
110 (2006) 9177 - 9182

*Rehfeldt, F. ; Steitz, R. ; Armes, S.P. ; von Klitzing, R. ; Gast, A.P. ; Tanaka, M.*

**Reversible activation of diblock copolymer monolayers at the interface by pH modulation, 1: Lateral chain density and conformation**

Journal of Physical Chemistry B  
110 (2006) 9171 - 9176

*Ribeiro, P.A. ; Steitz, R. ; Lopis, I. E. ; Haas, H. ; Souza, N.C. ; Oliveira, O.N. ; Raposo, M.*

**Thermal stability of poly(o-methoxyaniline) layer-by-layer films investigated by neutron reflectivity and UV-vis spectroscopy**

Journal of Nanoscience and Nanotechnology  
6 (2006) 1396 - 1404

*Russina, M. ; Arai, M. ; Kartini, E. ; Mezei, F. ; Nakamura, M.*

**Mobile cation motion in superionic glasses**

Physica B  
385-386 (2006) 240 - 242

*Russina, M. ; Mezei, F. ; Kozlowski, T. ; Lewis, P. ; Penttilla S.*

**Experimental study of the coupled moderator performance at LANSCE in short and long pulse spallation modes of operation**

In: Proceedings of the 17th Meeting of the International Collaboration on Advanced Neutron Sources ICANS - XVII : April 24-29, 2005, Santa Fe, New Mexico, USA, eds. Russell, G.J. [u.a.]  
2006, 478 - 483

*Stone, M.B. ; Broholm, C. ; Reich, D.H. ; Tchernyshyov, O. ; Vorderwisch, P. ; Harrison, N.*

**Quantum criticality in an organic magnet**

Physical Review Letters  
96 (2006) 257203/1 - 4

*Strobl, M. ; Treimer, W. ; Hilger, A.*

**Scattering-related contrast signals in neutron computerized tomography and the new v12 instrument at HMI Berlin**

Physica B  
385-386 (2006) 1209 - 1212

*Temst, K. ; Popova, E. ; Loosvelt, H. ; Van Bael, M.J. ; Brems, S. ; Bruynseraede, Y. ; Van Haesendonck, C. ; Fritzsche, H. ; Gierlings, M. ; Leunissen, L.H.A. ; Jonckheere, R.*

**The influence of finite size and shape anisotropy on exchange bias: A study of patterned Co/CoO nanostructures**

JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS  
304 (2006) 14 - 18

*Treimer, W. ; Hilger, A. ; Strobl, M.*

**Slit and phase grating diffraction with a double crystal diffractometer**

Physica B  
385-386 (2006) 1388 - 1391

*Triolo, A. ; Mandanici, A. ; Russina, O. ; Rodriguez-Mora, V. ; Cutroni, M. ; Hardacre, C. ; Nieuwenhuyzen, M. ; Bleif, H.J. ; Keller, L. ; Ramos, M.A.*

**Thermodynamics, structure, and dynamics in room temperature ionic liquids: The case of 1-butyl-3-methyl imidazolium hexafluorophosphate ([bmim][PF6])**

JOURNAL OF PHYSICAL CHEMISTRY B  
110 (2006) 21357 - 21364

*Walker, H.C. ; McEwen, K.A. ; Adroja, D.T. ; Park, J.G. ; Kwon, Y.S. ; So, J.Y. ; Kockelmann, W. ; Meissner, M.*

**Inelastic neutron scattering and heat capacity studies of ferromagnetic PrInNi<sub>4</sub>**

PHYSICA B

385 (2006) 41 - 43

*Wimpory, R.C. ; Biglari, F.R. ; Schneider, R. ; Nikbin, K.M. ; O'Dowd, N.P.*

**Effect of residual stress on high temperature deformation in a weld stainless steel**

Materials Science Forum

524-525 (2006) 311 - 316

*Wimpory, R.C. ; Ohms, C. ; Hornak, P. ; Neov, D. ; Youtsos, A.G.*

**Residual strain measurement of C/C-SiC tubes at high temperature**

Materials Science Forum

524-525 (2006) 665 - 670

## SF2.BENSC

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*Ashley, R.H. ; Harroun, T.A. ; Hauss, T. ; Breen, K.C. ; Bradshaw, J.P.*

**Autoinsertion of soluble oligomers of Alzheimer's A $\beta$ (1-42) peptide into cholesterol-containing membranes is accompanied by relocation of the sterol towards the bilayer surface**

BMC Structural Biology

6 (2006) 21 (1-11)

*Baran, S. ; Gondek, L. ; Hernandez-Velasco, J. ; Kaczorowski, D. ; Szytula, A.*

**Magnetic ordering in RPtIn (R = Dy and Ho) ternary intermetallics**

JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS

305 (2006) 196 - 201

*Baran, S. ; Henkel, F. ; Kaczorowski, D. ; Hernandez-Velaseo, J. ; Penc, B. ; Stüsser, N. ; Szytula, A. ; Wawrzynska, E.*

**Magnetic properties of the RCoxGe<sub>2</sub> (R = Gd-Er) compounds**

JOURNAL OF ALLOYS AND COMPOUNDS

415 (2006) 1 - 7

*Baranov, N.V. ; Yermakov, A.A. ; Pirogov, A.N. ; Proshkin, A.V. ; Gvasaliya, S.N. ; Podlesnyak, A.*

**Irreversibility of the magnetic state of Tm<sub>1-x</sub>Tb<sub>x</sub>Co<sub>2</sub> revealed by specific heat, electrical resistivity, and neutron diffraction measurements**

Physical Review B 73 (2006) 104445

73 (2006) 104445/1 - 11

*Buchsteiner, A. ; Lerf, A. ; Pieper J.*

**Water dynamics in graphite oxide investigated with neutron scattering**

Journal of Physical Chemistry B

110 (2006) 22328 - 22338

*Conder, K. ; Stingaciu, M. ; Pomjakushina, E. ; Podlesnyak, A.*

**Structural, magnetic and transport properties of layered cobaltites LnBaCo<sub>2</sub>O<sub>5+x</sub>**

Advances in Science and Technology

45 (2006) 2554 - 2559

*Dennison, S.R. ; Hauß, T. ; Dante, S. ; Brandenburg, K. ; Harris, F. ; Phoenix, D.A.*

**Deuteration can affect the conformational behaviour of amphiphilic  $\alpha$ -helical structures**

Biophysical Chemistry

119 (2006) 115 - 120

*Dyakonov, V. ; Bukhanko, F. ; Kamenev, V. ; Zubov, E. ; Baran, S. ; Jaworska-Golab, T. ; Szytula, A. ; Wawrzynska, E. ; Penc, B. ; Duraj, R. ; Stüsser, N. ; Arciszewska, M. ; Dobrowolski, W. ; Dyakonov, K. ; Pientosa, J. ; Manus, O. ; Nabialek, A. ; Aleshkevych, P. ; Puzniak, R. ; Wisniewski, A. ; Zuberek, R. ; Szymczak, H.*

**Structural and magnetic properties of  $\text{La}_{1-x}\text{Pr}_x\text{MnO}_{3+\delta}$  ( $0 \leq x \leq 1.0$ )**

PHYSICAL REVIEW B

74 (2006) 024418

*Efimov, V.V. ; Efimova, E.A. ; Iakubovskii, K. ; Karpinskii, D.V. ; Khasanov, S. ; Kochubey, D.I. ; Kriventsov, V.V. ; Kuzmin, A. ; Sazonov, A.P. ; Sikolenko, V. ; Sakharov, M. ; Shmakov, A.N. ; Tiutiunnkov, S.I.*

**Effect of high-current pulsed electron beam irradiation on the structure of  $\text{La}_{0.7}\text{Sr}_{0.3}\text{CoO}_3$  powder**

Journal of Physics and Chemistry of Solids

67 (2006) 2001 - 2006

*Efimov, V.V. ; Efimova, E.A. ; Iakubovskii, K. ; Khasanov, S. ; Kochubey, D.I. ; Kriventsov, V.V. ; Kuzmin, A. ; Mavrin, B.N. ; Sakharov, M. ; Sikolenko, V. ; Shmakov, A.N. ; Tiutiunnikov, S.I.*

**EXAFS, X-ray diffraction and Raman studies of  $(\text{Pb}_{1-x}\text{La}_x)(\text{Zr}_{0.65}\text{Ti}_{0.35})\text{O}_3$  ( $x = 0.04$  and  $0.09$ ) ceramics irradiated by high-current pulsed electron beam**

Journal of Physics and Chemistry of Solids

67 (2006) 2007 - 2012

*Fujisawa, M. ; Ono, T. ; Fujiwara, H. ; Tanaka, H. ; Sikolenko, V. ; Meissner, M. ; Smeibidl, P. ; Gerischer, S. ; Graf, H.*

**Drastic change of magnetic phase diagram in doped quantum antiferromagnet  $\text{TiCu}_{1-x}\text{Mg}_x\text{Cl}_3$**

Journal of the Physical Society of Japan

75 (2006) 033702/1 - 4

*Gilles, R. ; Mukherji, D. ; Hoelzel, M. ; Strunz, P. ; Toebbens, D.M. ; Barbier, B.*

**Neutron and X-ray diffraction measurements on micro- and nano-sized precipitates embedded in a Ni-based superalloy and after their extraction from the alloy**

Acta Materialia

54 (2006) 1307 - 1316

*Glavatskiy, I. ; Glavatska, N. ; Söderberg, O. ; Hannula, S.-P. ; Hoffmann, J.-U.*

**Transformation temperatures and magnetoplasticity of Ni-Mn-Ga alloyed with Si, In, Co or Fe**

Scripta Materialia

54 (2006) 1891 - 1895

*Golosova, N.O. ; Kozlenko, D.P. ; Sikolenko, V.V. ; Sazonov, A.P. ; Troyanchuk, I.O. ; Savenko, B.N. ; Glazkov, V.P.*

**High pressure effects on the crystal and magnetic structure of the  $\text{Nd}_{0.78}\text{Ba}_{0.22}\text{CoO}_3$  cobaltite**

JETP Letters

84 (2006) 16 - 20

*Golosovsky, I. ; Dvornikov, V. ; Hansen, T. ; Fokin, A. ; Koroleva, E. ; Korotkov, L. ; Naberezhnov, A. ; Tovar, M.*

**Structure and conductivity of nanostructured sodium nitrite**

In: Mechanical spectroscopy III : MS-3, eds. Darinskii, B.M. [u.a.]

2006, 221 - 228

*Golosovsky, I.V. ; Mirebeau, I. ; Andre, G. ; Tovar, M. ; Tobbens, D.M. ; Kurdyukov, D.A. ; Kumzerov, Y.A.*

**Magnetic phase transition in a nanostructured antiferromagnet CoO embedded in porous glass**

PHYSICS OF THE SOLID STATE

48 (2006) 2130 - 2133

*Golosovsky, I.V. ; Tovar, M. ; Hoffman, U. ; Mirebeau, I. ; Fauth, F. ; Kurdyukov, D.A. ; Kumzerov, Y.A.*

**Diffraction studies of the crystalline and magnetic structures of gamma- $\text{Fe}_2\text{O}_3$  iron oxide nanostructured in porous glass**

JETP LETTERS

83 (2006) 298 - 301

*Guenter, M.M. ; Lerch, M. ; Boysen, H. ; Toebbens, D. ; Suard, E. ; Baehtz, C.*

**Combined neutron and synchrotron X-ray diffraction study of Sr/Mg-doped lanthanum gallates up to high temperatures**

JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS  
67 (2006) 1754 - 1768

*Hoelzel, M. ; Del Genovese, D. ; Gilles, R. ; Mukherji, D. ; Toebbens, D.M. ; Roesler, J. ; Fuess, H.*

**Phase analysis and lattice mismatches in superalloys DT706 and Inconel 706**

Physica B  
385-386 (2006) 594 - 596

*Idzikowski, B. ; Kudryavtsev, Y.V. ; Hyun, Y.-H. ; Lee, Y.-P. ; Klenke, J.*

**Magnetic effects of structural disorder in the itinerant ferromagnet Ni<sub>3</sub>Al studied by magnetic and neutron methods on stoichiometric and off-stoichiometric samples**

Journal of Alloys and Compounds  
423 (2006) 267 - 273

*Karpinsky, D.V. ; Troyanchuk, I.O. ; Dobryansky, V.M. ; Szymczak, R. ; Tovar, M.*

**Crystal structure and magnetic properties of the LaCo<sub>0.5</sub>Fe<sub>0.5</sub>O<sub>3</sub> perovskite**

CRYSTALLOGRAPHY REPORTS  
51 (2006) 596 - 600

*Khalil-Allafi, J. ; Schmahl, W.W. ; Toebbens, D.M.*

**Space group and crystal structure of the R-phase in binary NiTi shape memory alloys**

ACTA MATERIALIA  
54 (2006) 3171 - 3175

*Khomchenko, V.A. ; Troyanchuk, I.O. ; Mantytskaya, O.S. ; Tovar, M. ; Szymczak, H.*

**Crystalline and magnetic structures of La<sub>1-x</sub>BixMnO<sub>3+delta</sub> manganites**

JOURNAL OF EXPERIMENTAL AND THEORETICAL PHYSICS  
103 (2006) 54 - 59

*Khomchenko, V.A. ; Troyanchuk, I.O. ; Sazonov, A.P. ; Sikolenko, V.V. ; Szymczak, H. ; Szymczak, R.*

**Metamagnetic behaviour in TbCo<sub>0.5</sub>Mn<sub>0.5</sub>O<sub>3.06</sub> perovskite**

Journal of Physics: Condensed Matter  
18 (2006) 9541 - 9548

*Kirstein, O. ; Prager, M. ; Grimm, H. ; Buchsteiner, A. ; Wischnewski, A.*

**Quasi-elastic neutron spectroscopy and rotational potentials of methyl halides**

Physica B  
385-386 (2006) 47 - 49

*Köbler, U. ; Hoser, A. ; Hoffmann, J.-U.*

**Crystal field effects in the 3d transition metal compounds**

Physica B  
382 (2006) 98 - 104

*Köbler, U. ; Hoser, A. ; Hoffmann, J.-U. ; Thomas, C.*

**One-dimensional bulk ferromagnets: NdAl<sub>2</sub> and hcp cobalt**

Solid State Communications  
137 (2006) 301 - 305

*Lee, S. ; Pirogov, A.N. ; Podlesnyak, A.A. ; Prokes, K. ; Dorofeef, Yu.A. ; Teplykh, A.E. ; Swainson, I.P. ; Park, J.-G.*

**Unusual magnetic phase transitions of TbNi<sub>5</sub>**

Physica B  
385-386 (2006) 349 - 352

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Environmental Science and Technology  
40 (2006) 5193 - 5199

## **SE5.Interfaces**

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*Berenguier, B. ; Lewerenz, H.J.*

**Efficient solar energy conversion with electrochemically conditioned  $\text{CuInS}_2$  thin film absorber layers**

Electrochemistry Communications  
8 (2006) 165 - 169

*Lewerenz, H.J. ; Jakubowicz, J. ; Jungblut, H.*

**Nascent, metastable and induced nanostructures on silicon electrodes**

Comptes Rendus Chimie  
9 (2006) 289 - 293

*Wilhelm, T. ; Berenguier, B. ; Aggour, M. ; Kanis, M. ; Lewerenz, H.-J.*

**Efficient  $\text{CuInS}_2$  (CIS) solar cells by photoelectrochemical conditioning**

Comptes Rendus Chimie  
9 (2006) 294 - 300

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**SF3.Light weight mat.**

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*Matijasevic-Lux, B. ; Banhart, J. ; Fiechter, S. ; Görke, O. ; Wanderka, N.*

**Modification of titanium hydride for improved aluminium foam manufacture**

Acta Materialia

54 (2006) 1887 - 1900

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**SF4.Structures**

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*Fink, D. ; Rojas-Chapana, J. ; Petrov, A. ; Tributsch, H. ; Friedrich, D. ; Küppers, U. ; Wilhelm, M. ; Apel, P. Yu. ; Zrineh, A.*

**The "artificial ostrich eggshell" project: Sterilizing polymer foils for food industry and medicine**

Solar Energy Materials and Solar Cells

90 (2006) 1458 - 1470

<b>SE6 - Electronic structure of semiconductor interfaces</b>
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**SE1.Hetero**

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*Hunger, R. ; Jaegermann, W. ; Merson, A. ; Shapira, Y. ; Pettenkofer, C. ; Rappich, J.*

**Electronic structure of methoxy-, bromo-, and nitrobenzene grafted onto Si(111)**

Journal of Physical Chemistry B

110 (2006) 15432 - 15441

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**SE6.BESSY**

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*Winter, B. ; Faubel, M. ; Hertel, I.V. ; Pettenkofer, C. ; Bradforth, S.E. ; Jagoda-Cwiklik, B. ; Cwiklik, L. ; Jungwirth, P.*

**Electron binding energies of hydrated H<sub>3</sub>O<sup>+</sup> and OH<sup>-</sup>: Photoelectron spectroscopy of aqueous acid and base solutions combined with electronic structure calculations**

Journal of American Chemical Society

128 (2006) 3864 - 3865

# Conference Contributions

## SF - Structural Research

### SF - BENSC

#### BENSC.User

Poster

*H. N. Bordallo, L.P. Aldridge, A. Desmedt*

#### **Water dynamics in hardened cement paste - from Inelastic Neutron Scattering**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Hamburg 04. Oct - 06. Oct 2006

#### SF1.BENSC

Invited Talk

*Wimpory, R. C., Ohms, C., Hornák, P., Neov, D., and Youtsos, A. G.*

#### **Residual Strain measurement of C/C-SiC tubes at high temperature**

The 7th European Conference on Residual Stresses 13-15 September 2006 Berlin, Germany

Berlin 13. Sep - 15. Sep 2006

Poster

*Clemens, D.; Peters, J.; Bleif, H.J.; Pappas, C.; Mezei, F.*

#### **Instrumentierung in der Neutronenleiterhalle-II bei BENSC**

SNI2006

Hamburg 04. Oct - 06. Oct 2006

Poster

*Gopinadhan, M.; Ivanova, O.; Ahrens, H.; Günther, J.-U.; Steitz, R.; Schönhoff, M.; Helm, C. A.;*

#### **Chain stratification in polyelectrolyte multilayers**

6th International Symposium on Polyelectrolytes

Dresden 04. Sep - 08. Sep 2006

Invited Talk

*Habicht, K.*

#### **Polarized Neutron Scattering at the Cold-Neutron Triple-Axis Spectrometer V2/FLEX at BENSC**

Workshop on Inelastic Neutron Spectrometers 2006 (WINS2006)

Berlin, 29. Sep - 30. Sep 2006

Invited Talk

*Jauch, W.; Reehuis, M.*

#### **Charge density in paramagnetic chromium from gamma-ray diffraction**

4th European Charge Density Meeting

Brandenburg (Havel) 26. Jan - 29. Jan 2006

Invited Talk

*Jauch, W.; Reehuis, M.*

#### **Charge density in paramagnetic chromium from gamma-ray diffraction**

Sagamore XV Conference on Electron Charge Spin and Momentum Densities

Market Bosworth, GB 13. Aug - 18. Aug 2006

Invited Talk

*Peters, J.; Mezei, F.*

#### **Le nouvel instrument EXED (Extreme Environment Diffractometer) au Hahn-Meitner-Institut de Berlin**

14èmes Journées de la Diffusion Neutronique

Murol (Puy de Dôme) 17. May - 19. May 2006



Poster

*Peters, J.; Mezei, F.*

**The new time-of-flight powder diffractometer for extreme sample environments at the Hahn-Meitner-Institut Berlin**

ILL Millenium Symposium and European User's Meeting

Grenoble 27. Apr - 29. Apr 2006

Oral

*Peters, J.; Mezei, F.*

**FIRST RESULTS AT THE NEW EXTREME ENVIRONMENT DIFFRACTOMETER (EXED) AT THE HAHN-MEITNER-INSTITUT BERLIN**

EPDIC 10 European Powder Diffraction Conference

Geneva 01. Sep - 04. Sep 2006

Invited Talk

*Peters, J.; Mezei, F.*

**General Time-of-Flight Technique for ultra-high Resolution Diffraction on a continuous Source**

ESS-S workshop on long pulse instrumentation

Lund, Sweden 20. Apr - 21. Apr 2006

Poster

*Peters, J.; Treimer, W.; Mezei, F.*

**Etude des domaines magnétiques et des parois de Bloch dans un monocristal de nickel par la diffusion de neutrons**

14èmes Journées de la Diffusion Neutronique

Murlo (Puy de Dôme) 17. May - 19. May 2006

Invited Talk

*Schneider, R.; Fähler, S.*

**Development of a Web-Database to Achieve Consistency in SPP 1239 Results**

DFG Schwerpunkt 1239 Meeting

IFW Dresden 19. Sep - 20. Sep 2006

Invited Talk

*Schneider, R.; Hofmann, M.; Wimpory, R.; Poeste, T.; Rebelo-Kornmeier, J.*

**The new and refurbished materials science diffractometers at BER II and FRM II - current projects in co-operation with industry**

BBAA Workshop "Lightweight Aero Structures Design and Repair Technology?"

Berlin 22. Nov - 22. Nov 2006

Oral

*Schneider, R.; Hofmann, M.; Wimpory, R.; Poeste, T.; Rebelo-Kornmeier, J.*

**The new and refurbished materials science diffractometers at BER II and FRM II - current projects in co-operation with industry**

AWT Fachausschuss Eigenspannungen

Garching 31. May - 31. May 2006

Invited Talk

*Schneider, R.; Hofmann, M.; Wimpory, R.; Poeste, T.; Rebelo-Kornmeier, J.*

**The new and refurbished materials science diffractometers at BER II and FRM II - standardization and automation**

Workshop POLDI

PSI(CH) 27. Oct - 27. Oct 2006

Invited Talk

*Schneider, R.; Mecklenburg, A.*

**Development of Magnetic Shape Memory Actuators Based on the Standardization of Crystal Growth, Treatment, Training and Quality Assurance**

DFG Schwerpunkt 1239

Stiftung Caesar, Bonn 13. Mar - 14. Mar 2006

Invited Talk

*Steitz, R.*

**Neutron reflectivity in soft matter**

ADAM Workshop

Bochum 19. May - 19. May 2006

Oral

*Steitz, R.; Wong, J. E.; von Klitzing, R.;*

**Swelling kinetics and structural changes of polyelectrolyte multilayers in contact with aqueous solution and water vapor**

SNI2006

Hamburg 04. Oct - 06. Oct 2006

Poster

*Steitz, R.; Wong, J. E.; von Klitzing, R.;*

**Swelling kinetics and structural changes of polyelectrolyte multilayers in contact with aqueous solution and water vapor**

6th International Symposium on Polyelectrolytes

Dresden 04. Sep - 08. Sep 2006

Oral

*Steitz, R.; Wong, J.E.; v. Klitzing, R.;*

**Kinetics of water uptake and release of polyelectrolyte multilayers**

20th European Colloid and Interface Society Conference

Budapest 17. Sep - 22. Sep 2006

Oral

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

**New options for monochromatic NR & NCT at HMI Berlin**

europ. tomography workshop

HMI 17. Mar - 17. Mar 2006

Poster

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

**A double monochromator device for the CONRAD imaging instrument at HMI Berlin and applications**

SNI

hamburg 04. Oct - 06. Oct 2006

Poster

*Strobl, M., Treimer, W.*

**The new V12a double crystal diffractometer at HMI and neutron imaging**

SNI

hamburg 04. Oct - 06. Oct 2006

Poster

*Strobl, M., Treimer, W.*

**New beamline for tomography with monochromatic neutrons and applications**

ECNDT

berlin 25. Sep - 29. Sep 2006

Poster

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

**A double monochromator device for CONRAD**

8th WCNR

NIST 16. Oct - 20. Oct 2006

Oral

*Strobl, M., W. Treimer, A. Hilger*

**The new V12 diffractometer at HMI and computerized tomography**

DPG Tagung

TU Dresden 27. Mar - 29. Mar 2006

Oral

*Strobl, M., W. Treimer, C. Ritzoulis, A. Wagh, I. Manke*

**The new V12 USANS and tomography instrument at HMI Berlin**

SAS2006

Kyoto 10. Jul - 14. Jul 2006

Oral

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

**Imaging with monochromatic neutrons @ HMI Berlin**

8th WCNR

NIST, Gaithersburg 16. Oct - 20. Oct 2006

Poster

*Strobl, M.; Ritzoulis, Ch.; Panayiotou, C.*

**Designing the Porosity of Composite Bone Substitutes**

SAS2006

Kyoto 10. Jul - 14. Jul 2006

Oral

*Treimer, W.*

**Refractions-, USANS- and tomography with monochromatic neutrons**

ECNDT 2006 Berlin (Vortrag)

Berlin 25. Sep - 29. Sep 2006

Oral

*Treimer, W.*

**Neutron Radiography and tomography: New techniques - new results**

8th World conference on Neutron Radiography (Vortrag)

Gaithersburg DC Washington (USA) 16. Oct - 19. Oct 2006

Oral

*Treimer, W.*

**Refraction and USANS tomography**

Imaging and Neutrons (IAN) 2006 (eingeladener Vortrag)

Oak Ridge TN (USA) 23. Oct - 25. Oct 2006

Oral

*Treimer, W.*

**Neutronentomographie am HMI - ein Überblick**

Workshop am HMI (17. 3.2006)

Hahn Meitner Institut Berlin 17. Mar - 17. Mar 2006

Invited Talk

*Wimpory, R.C*

**Neutron measurements 2005-2006 For VAMAS TWA 31**

VAMAS TWA 31 Meeting

Geesthacht (Hamburg), Germany. 18. Dec - 18. Dec 2006

Invited Talk

*Wimpory, R.C.*

**Residual stress measurements for SKF**

SKF Engineering Research Centre

Nieuwegein The Netherlands 12. Jan - 12. Jan 2006

Invited Talk

*Wimpory, R.C.*

**NET Task Group 1: Residual Stress Analysis for a Single Bead on Plate Weld**

NET-European Network, 10th Steering Committee Meeting, JRC-Petten, 30 Nov - 1 Dec 2006

Petten, Holland 30. Nov - 01. Dec 2006

Invited Talk

*Wimporoy, R.C.*

**The complimentary use of SANS and Diffraction in industry Part : 1**

NET-10th Steering Committee Meeting, JRC-Petten, 30 Nov - 1 Dec 2006

Petten, Holland 30. Dec - 01. Dec 2006

Invited Talk

*Wimporoy, R.C., Biglari F. R., Schneider. R., Nikbin, K. M., O'Dowd, N. P.*

**Effect of residual stress on high temperature deformation and cracking in a weld stainless steel**

The 7th European Conference on Residual Stresses

Berlin 13. Sep - 15. Sep 2006

Invited Talk

*Wimporoy, R.C., Hofmann, M., Poeste, T., Rebelo-Kornmeier, J., Garbe, U., Schneider, R.*

**Neutron Instruments for Materials Research**

Joint NET PECO workshop and 9th NET Steering Committee Meeting

Yeditepe University, Istanbul 08. Jun - 09. Jun 2006

Poster

*Wimporoy, R.C., Nikbin, K.*

**Assessment of residual stresses in cracked Fracture Mechanics CT specimens.**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Hamburg 04. Oct - 06. Oct 2006

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## SF2.BENSC

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Invited Talk

*Denks, I.A.*

**Diffraktometrische Eigenspannungsanalyse mit weißer Synchrotronstrahlung - Grundlagen, Anwendungen und Perspektiven**

Werkstoffseminar

Kassel 30. Oct - 30. Oct 2006

Poster

*Denks, I.A.; Genzel, Ch.; Dudzik, E.; Feyerherm, R.; Klaus, M.; Wagener, G.*

**The new HMI hard X-ray diffraction Beamlines at BESSY**

9th International Conference on Synchrotron Radiation

Daegu, Korea 28. May - 03. Jun 2006

Poster

*Denks, I.A.; Klaus, M.; Gibmeier, J.; Genzel, Ch.*

**Application of white beam high energy X-ray diffraction to the analysis of near surface gradients**

Frühjahrestagung des Arbeitskreises Festkörperphysik der DPG

Dresden 27. Mar - 31. Mar 2006

Poster

*Feyerherm, R.; Dudzik, E.; Aliouane, N.; Argyriou, D.N.; Prokhnenko, O.*

**Multiferroic DyMnO<sub>3</sub> studied by x-ray resonant magnetic scattering**

SNI2006, Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Hamburg 04. Oct - 06. Oct 2006

Poster

*Freydank, H.; Poeste, T.; Denks, I.A.; Genzel, Ch.*

**Investigation on the Residual Stress State in Steel Drawn Cups**

BESSY User Meeting

Berlin 07. Dec - 08. Dec 2006

Invited Talk

*Genzel, C.*

**X-ray diffraction analysis of residual stress fields in thin films - basic aspects and applications.**

Hauptvortrag auf der Frühjahrstagung des Arbeitskreises Festkörperphysik der DPG, Dresden.

Dresden 27. Mar - 31. Mar 2006

Oral

*Genzel, C.*

**Methodische Entwicklungen an der Materialforschungsbeamline EDDI.**

4. Treffen des Virtuellen Instituts PNAM, Düsseldorf.

Düsseldorf 25. Apr - 25. Apr 2006

Poster

*Genzel, Ch.; Denks, I.A.; Klaus, M.*

**The Materials Science Beamline EDDI for Energy-Dispersive Analysis of Subsurface Residual Stress Gradients**

7th European Conference on Residual Stresses

Berlin 13. Sep - 15. Sep 2006

Poster

*Genzel, Ch.; Denks, I.A.; Klaus, M.; Gibmeier, J.*

**The Materials Science Beamline EDDI for Energy-Dispersive Diffraction Analysis of Subsurface Residual Stress Gradients**

Bessy User Meeting

Berlin 07. Dec - 08. Dec 2006

Invited Talk

*Hauß, T.*

**Protein dynamics during the photocycle of bacteriorhodopsin studied in real-time pulsed quasi elastic neutron scattering experiments**

Danish Crystallographic Meeting. Odense, Denmark

Odense 16. Mar - 17. Mar 2006

Poster

*Kamarad J.; Prokhnenko, O.; Prokes, K.; Arnold, Z.; Andreev, A.V*

**Pressure induced helimagnetism in Fe-based (Y<sub>2</sub>Fe<sub>17</sub>, Lu<sub>2</sub>Fe<sub>17</sub>) intermetallic compounds**

International Conference on Magnetism

Kyoto 20. Aug - 25. Aug 2006

Oral

*Klaus, M.*

**X-Ray Diffraction Analysis of Nonuniform Residual Stress Fields  $\sigma_{ii}(t)$  under Difficult Conditions**

7th European Conference on Residual Stresses (ECRS-7)

Berlin 13. Sep - 15. Sep 2006

Oral

*Klaus, M.*

**Energiedispersive Materialforschung an der Synchrotronbeamline EDDI bei BESSY - Rückblick auf ein Jahr Messbetrieb, Stand und Perspektiven**

Sitzung des FA13 der AWT Eigenspannungen, , 30. - 31.05.2006.

München 30. May - 31. May 2006

Oral

*Klaus, M.*

**Residual stress analysis in multilayer systems with synchrotron radiation - complementary investigations using angle and energy dispersive diffraction methods**

Frühjahrstagung des Arbeitskreises Festkörperphysik der DPG

Dresden 27. Mar - 31. Mar 2006

Oral

*Nadir Aliouane , D.N. Argyriou , J. Stempffer , I. Zegkinoglou , S Landsgesell , M. v. Zimmermann*

**Field induced magneto-structural transition in multiferroic TbMnO<sub>3</sub>**

German Conference for Research with Synchrotron Radiation, Neutrons and Ion Beams at Large Facilities  
2006

Hamburg 04. Oct - 06. Oct 2006

Invited Talk

*Prokhnenko, O.; Kamarad J.; Prokes, K.; Arnold, Z.; Andreev, A.V*

**Helimagnetism in Fe-rich intermetallic compounds**

44th European High Pressure Research Group International Conference

Prague 04. Sep - 08. Sep 2006

Poster

*Rodriguez-Alvarez, H., Kötschau, I., Streek, C., Weber, A., Klaus, M., Denks, I., Gibmeier, J., Genzel, Ch., Schock, H.W.*

**First Results from in-situ EDXRD Investigations on the Rapid Thermal Processing of CuInS<sub>2</sub> for Thin Solar Cells Fabrication**

BESSY User Meeting

Berlin 07. Dec - 08. Dec 2006

Oral

*S. Müller, M. Rubhausen, R. Rauer, A. Rusydi, M. Bastjan, G. Neuber, S. Dastjani-Faharani, B. Schulz, S. Singer, A. Lichtenstein, D. N. Argyriou, K. Dörr*

**Dielectric properties of TbMnO<sub>3</sub> and La(Sr,Ca)<sub>0.3</sub>MnO<sub>3</sub> -- evidence for spectral weight changes up to 20 eV.**

2006 APS March Meeting Monday-Friday, March 13-17, 2006; Baltimore, MD

13. Mar - 17. Mar 2006

Invited Talk

*Smeibidl, P.*

**New High Field Magnet for Neutron Scattering at Hahn-Meitner Institute, Berlin -Status of the Instrument ExED and Magnet System-**

Workshop on Science Opportunities using X-Rays and Split Gap High Field Magnets

Advanced Photon Source, Argonne, USA 08. Jun - 09. Jun 2006

Invited Talk

*Smeibidl, P.*

**New High Field Magnet for Neutron Scattering at the Berlin Neutron Scattering Center (BENSC) -Present and Future-**

International Workshop on Sample Environment at Neutron Scattering Facilities

IntensePulsedNeutronSource, Argonne, USA 05. Sep - 07. Sep 2006

Oral

*Stüßler, N.; Sadykov, R.;Hoser, A.*

**Neutronenbeugungsuntersuchungen zur druckabhängigen magnetischen Struktur in CsCuCl<sub>3</sub>**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten  
2006SNI 2006

Hamburg 04. Oct - 06. Oct 2006

Invited Talk

*T. Hauss, J. Pieper, A. Buchsteiner, R. E. Lechner, N. A. Dencher*

**Time resolved protein dynamics during the photocycle of bacteriorhodopsin studied by quasi elastic neutron scattering**

12. International Conference on Retinal Proteins - Satellite Meeting Nagoya, Japan

Nagoya 12. Jun - 12. Jun 2006

Invited Talk

*T. Hauss, J. Pieper, A. Buchsteiner, R. E. Lechner, N. A. Dencher*

**Time resolved protein dynamics during the photocycle of bacteriorhodopsin studied by quasi elastic neutron scattering**

International Workshop Dynamics of Membranes. Gomadingen, Germany

Gomadingen 20. Mar - 23. Mar 2006

Invited Talk

*Tennant, A.*

**The LET project on TS-II**

NUM 06 Neutron user meeting - excitations

Abingdon UK 02. Aug - 02. Aug 2006

Invited Talk

*Tennant, A.*

**BENSC - a centre for neutron research in Berlin**

First Joint China US Workshop on Neutron Sciences

Beijing, China 13. Nov - 16. Nov 2006

Oral

*Tennant, A., Smeibidl, P.; Steiner, M.*

**The new high field project at HMI**

SNI06 : Synchrotrons, Neutrons and Ions Meeting

Hamburg, Germany 2006 04. Oct - 06. Oct 2006

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### SF3.BENSC

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Poster

*Haibel, A.; Scheuerlein, C.; Schneider, R.; Hoffmann, J.-U.; Wimpory, R.; Lake, B.; Banhart, J.; Tennant, A.*

**Untersuchung intermetallischer Phasenbildung in Nb<sub>3</sub>Sn Supraleitern mittels Synchrotron-Tomographie und Neutronendiffraktion**

SNI 2006

Hamburg, Germany 04. Oct - 06. Oct 2006

Poster

*Hartnig, Ch.; Manke, I.; Kardjilov, N.; Haibel, A.; Schmidt, G.; Banhart, J.; Lehnert, W.*

**Investigation of water distribution in porous structures for fuel cell applications by means of synchrotron tomography**

Bessy-User-Meeting 2006

Berlin, Germany 07. Dec - 08. Dec 2006

Oral

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

**Specifics of the neutron tomography in NDT**

ECNDT 2006

Berlin 25. Sep - 29. Sep 2006

Oral

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

**Multifunctional tomography instrument with cold neutrons at HMI**

8th World Conference on Neutron Radiography 2006

Gaithersburg, USA 16. Oct - 19. Oct 2006

Oral

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

**The new cold neutron radiography and tomography instrument CONRAD at HMI Berlin**

DPG-Frühjahrstagung 2006

Dresden, Germany 27. Mar - 31. Mar 2006

Oral

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

**Strain mapping by energy-selective neutron radiography**

DPG-Frühjahrstagung 2006

Dresden, Germany 27. Mar - 31. Mar 2006

Poster

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

**Specifics of the neutron tomography in NDT**

ECNDT 2006

Berlin 25. Sep - 29. Sep 2006

Oral

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

**Phase-contrast tomography with cold neutrons using the propagation technique**

8th World Conference on Neutron Radiography 2006

Gaithersburg, USA 16. Oct - 19. Oct 2006

Oral

*Manke, I.; Haibel, A.; Rack, A.; Kardjilov, N.; Hilger, A.; Zabler, S.; Melzer, A.; Banhart, J.*

**In-situ investigation of discharge of alkaline batteries by means of tomography**

ECNDT-9

Berlin 25. Sep - 29. Sep 2006

Oral

*Manke, I.; Kardjilov, N.; Hartnig, C.; Hilger, A.; Strobl, M.; Treimer, W.; Lehnert, W.; Banhart, J.*

**Neutron radiography and tomography on fuel cells**

ECNDT-9 2006

Berlin 25. Sep - 29. Sep 2006

Invited Talk

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

**Application centre NIXE at HMI Berlin**

Meeting of Neutron Radiography Association 2006

Berlin, Germany 17. Mar - 17. Mar 2006

Oral

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

**A double monochromator device for the CONRAD radiography instrument at HMI and applications**

DPG Tagung

TU Dresden 27. Mar - 29. Mar 2006

Oral

*Tatchev, D.; Goerigk, G.; Hoell, A.; Valova, E.; Kranold, R.; Arnyanov, S.; Dille, J.*

**Composition of nanoprecipitates in Ni<sub>83</sub>P<sub>17</sub> amorphous alloy**

NANOPHEN International Workshop

Sandanski, Bulgaria 25. Mar - 30. Mar 2006

<b>SF - ISL</b>
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**ISL.PPT**

Poster

*Berg, A.; Bayreder, C.; Heufelder, J.*

**3D-MR-microimaging based polymer-gel-dosimetry of proton-pencil-beams for tumor therapy**

23rd Annual Scientific Meeting of the European Society for Magnetic Resonance in Medicine and Biology

Warschau 21. Sep - 23. Sep 2006



Oral

*Berg, A.; Bayreder, C.; Heufelder, J.*

**3D-Polymergeldosimetrie von Protonennadelstrahlen**

36. Jahrestagung der Deutschen Gesellschaft für Medizinische Physik

Regensburg 20. Sep - 23. Sep 2006

Oral

*Heufelder, J.; Cordini, D.; Kluge, H.; Simiantonakis, I.; Stark, R.; Weber, A.; Homeyer, H.*

**Erfahrungen aus 8 Jahren Protonentherapie**

36. Jahrestagung der Deutschen Gesellschaft für Medizinische Physik

Regensburg 20. Sep - 23. Sep 2006

Poster

*Heufelder, J.; Cordini, D.; Simiantonakis, I.; Stark, R.; Weber, A.; Kluge, H.*

**Protonentherapie von Augentumoren - Störung der Dosisverteilung durch Positionsmarker im Bestrahlungsfeld**

12. Jahreskongress der Deutschen Gesellschaft für Radioonkologie

Dresden 25. May - 28. May 2006

Oral

*Höcht, S.; Bechrakis, N.E.; Cordini, D.; Stroux, A.; Wachtlin, J.; Krause, L.; Heufelder, J.; Stark, R.; Simiantonakis, I.; Weber, A.; Kluge, H.; Foerster, M.H.; Hinkelbein, W.*

**A learning curve in ocular tumor therapy ?**

44th International Meeting of Particle Therapy Co-Operative Group

Zürich 14. Jun - 16. Jun 2006

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## ISL.User

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Poster

*Toledano-Luque, M.; San Andrés, E.; Olea, J.; del Prado, A.; Mártel, I.; Bohne, W.; Röhrich, J.; Strub, E.*

**Hafnium oxide thin films deposited by high pressure reactive sputtering in atmosphere formed with different Ar/O<sub>2</sub> ratios**

E-MRS Spring Meeting 2006

Nizza 29. May - 02. Jun 2006

Oral

*Bolse, T.M.; Lyutovich, K.; Paulus, H.; Bouhachi, B.; Klaumünzer, S.; Bolse, W.*

**Dewetting of thin metal-oxide films on silicon under swift heavy ion bombardment**

21st General Conference of the EPS Condensed Matter Division

Dresden 27. Mar - 31. Mar 2006

Oral

*Bolse, W.; Dais, C.; Bolse, T.; Klaumünzer, S.; Schubert-Bischoff, P.; Lindner, J.K.N.*

**Swift heavy ion induced phase formation at NiO/Si-interfaces**

21st General Conference of the EPS Condensed Matter Division

Dresden 27. Mar - 31. Mar 2006

Oral

*Denker, A.*

**Zerstörungsfreie Untersuchung von Kunstgegenständen mit Protonen Induzierter Röntgenemission**

DGM Tag 2006

Berlin 07. Jun - 09. Jun 2006

Invited Talk

*Denker, A.*

**Ion accelerator applications in medicine and cultural heritage**

10th International Symposium on Radiation Physics

Coimbra Portugal 17. Sep - 22. Sep 2006

Invited Talk

*Denker, A.*

**Non-destructive elemental analysis on paintings and metal artefacts**

Fall meeting of the Division of Nuclear Physics of the American Physical Society  
Nashville TN, USA 25. Oct - 28. Oct 2006

Poster

*Denker, A.*

**non-destructive analysis using high-energy protons**

Erster Workshop zur Gründung eines Netzwerks zur Kunst- und Kulturguterhaltung  
Berlin 25. Sep - 25. Sep 2006

Poster

*Denker, A.; Bohne, W.; Cordini, D.; Heufelder, J.; Homeyer, H.; Klaumünzer, S.; Kluge, H.; Stark, R.; Strub, E.; Röhrich, J.*

**Swift Ion Beams for Solid State Physics and Materials Science, Medicine and Science of Art**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten  
2006

Hamburg 04. Oct - 06. Oct 2006

Oral

*Denker, A.; Hahn, O.; Kanngießner, B.; Schöder-Smeibidl, B.*

**Network of Analytical Research for cultural heritage in Berlin Brandenburg**

COST Action G8 - non-destructive analysis and testing of museum objects, final workshop  
Nicosia, Zypern 18. May - 20. May 2006

Oral

*Denker, A.; Laurenze-Landsberg, C.*

**Gemäldeuntersuchungen mit hochenergetischen Protonen**

Archäometrie und Denkmalpflege 2006

Stuttgart 22. Mar - 24. Mar 2006

Oral

*Denker, A.; Opitz-Coutureau, J.; Griesser, M.; Denk, R.; Winter, H.*

**Zerstörungsfreie Analyse an mittelalterlichen „Wiener Pfennigen“**

Ionenstrahltreffen

HMI 16. May - 17. May 2006

Invited Talk

*Denker, A.; Schröder-Smeibidl, B.; Mertens, L.-A.; Berthold, K.; Niemann, A.*

**Looking deep into the object**

Cultural Heritage and Science: An Interdisciplinary Approach for the Conservation of Museum Objects  
Gent 05. Dec - 07. Dec 2006

Oral

*Hedler, A.; Klaumünzer, S.; Lindner, J.K.N.; Frosch, T.; Darowski, N.; Zizak, I.; Popp, J.; Wesch, W.*

**Void formation in amorphous silicon during swift heavy ion irradiation.**

15th International Conference on Ion Beam Modification of Materials

Taormina, Italien 18. Sep - 22. Sep 2006

Oral

*WOLFF, T.; DENKER, A.; HAHN, O.; MERCHEL, S.; RADTKE, M.; REINHOLZ, U.*

**RÖNTGENANALYTISCHE METHODEN IM VERGLEICH**

Archäometrietagung

Stuttgart 22. Mar - 24. Mar 2006

## SF - BESSY

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### SF2.BESSY

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Poster

*Darowski, N., Zizak I.; Gupta A.; Erko, A.; Meneghini, C.*

**Depth profiling of marker layers with sub-nanometer spatial resolution using X-ray waveguide structures.**

BESSY Users' Meeting 2006

Berlin 07. Dec - 08. Dec 2006

Poster

*Darowski, N., Zizak, I.; Gupta, A.; Erko, A.; Meneghini, C.*

**Tiefenaufgelöste Charakterisierung der ioneninduzierten Durchmischung von dünnen Marker-Schichten mittels Röntgenabsorption in Wellenleitergeometrie**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Hamburg 04. Oct - 06. Oct 2006

Poster

*Darowski, N.; Zizak, I.; Gupta, A.; Erko, A.; Meneghini, C.*

**Depth profiling of marker layers using X-ray waveguide structures.**

4th International Workshop on Nanoscale Spectroscopy and Nanotechnology

Rathen 17. Sep - 21. Sep 2006

Poster

*Dudzik, E.; Feyerherm, R.*

**The new MAGS beamline: an instrument for hard x-ray diffraction at Bessy**

SNI2006, Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Hamburg 04. Oct - 06. Oct 2006

Invited Talk

*Genzel, C.*

**X-ray diffraction analysis of residual stress fields in thin films - basic aspects and applications**

Frühjahrstagung der Deutschen Physikalischen Gesellschaft (DPG)

Dresden 27. Mar - 31. Mar 2006

Oral

*Klaus, M.; Denks, I.; Genzel Ch.*

**Residual stress analysis in multilayer systems with synchrotron radiation - complementary investigations using angle and energy dispersive diffraction methods**

DPG (Deutsche Physikalische Gesellschaft e.V.) - spring meeting of the Division of Condensed Matter

Dresden 26. Mar - 31. Mar 2006

Poster

*Rossner, H.H.; Schmitz, D.; Darowski, N.*

**EXAFS and MEXAFS at overlapping L-edges**

BESSY Users' Meeting

Berlin-Adlershof 07. Dec - 08. Dec 2006

### SF3.BESSY

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Poster

*Gräber, H. G.; Apel, C.; Rack, A.; Manke, I.; Haibel, A.; Riesemeier, H.; Zabler, S.; Weidemann, G.;*

*Goebbels, J.; Banhart, J.*

**Hochauflösende Synchrotron-Tomographie zur Darstellung kariöser Prozesse**

Bessy-User-Meeting 2006

Berlin, Germany 07. Dec - 08. Dec 2006

## Poster

Haas, S.; Hoell, A.; Zehl, G.; Fiechter, S.

**Anomalous small-angle X-ray scattering investigation of Ru-Se catalysts supported on carbon**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Universität Hamburg 04. Oct - 06. Oct 2006

## Oral

Haibel, A.; Scheuerlein, C.; Hoffmann, J.-U.; Schneider, R.; Banhart, J.

**Phase analysis in multifilament Nb<sub>3</sub>Sn superconduction strands during in-situ heat treatments using neutron diffraction**

European Powder Diffraction Conference, EPDiC-10

Geneva 01. Sep - 04. Sep 2006

## Oral

Haibel, A.; Scheuerlein, C.; Schneider, R.; Hoffmann, J.-U.; Wimpory, R.; Lake, B.; Banhart, J.; Tennant, A.

**Investigation of the Nb<sub>3</sub>Sn phase formation in multifilamentary superconductors using synchrotron tomography and neutron diffraction**

SRMS-5

Chicago, USA 30. Jul - 02. Aug 2006

## Invited Talk

Hoell, A.

**"Small angle scattering" - Arbeitstitel Lecture and Introduction to Small-Angle-Scattering and ASAXS**

Eighth ESG Conference with the Annual Meeting of the ICG and SGT

Sunderland, UK 10. Sep - 14. Sep 2006

## Poster

Hoell, A.; Goerigk, G.; Kranold, R.; Tatchev, D.; Haas, S.; Müller, M.; Rademann, K.; Eichelbaum, M.; Banhart, J.

**The formation of optically active nanoparticles in silicate glasses**

HASYLAB Users Meeting

Hamburg, Germany 27. Jan - 27. Jan 2006

## Poster

Hoell, A.; Zizak, I.; Haas, S.; Tatchev, D.; Banhart, J.

**The new A- and Gi-SAXS dedicated SAXS instrument installed at the Berlin synchrotron BESSY**

Small Angle Scattering 2006 (SAS 2006)

Kyoto, Japan 09. Jul - 13. Jul 2006

## Oral

Hoell, A.; Zizak, J.; Haas, S.; Tatchev, D.; Banhart, J.

**The A- and Gi-SAXS dedicated SAXS instrument at Bessy 7T wiggler**

SNI2006

Hamburg, Germany 04. Oct - 06. Oct 2006

## Poster

Kumpugdee-Vollrath, M.; Ngawhirunpat, T.; Hoell, A.; Zizak, I.

**Comparison of secondary structure of shed snake skins and human skin by Small Angle X-Ray Scattering (SAXS) Technique**

13th International Pharmaceutical Technology Symposium

Antalya, Turkey 10. Sep - 13. Sep 2006

## Oral

Zabler, S.; Zaslansky, P.; Thermann, K.; Riesemeier, H.; Kremmin, B.

**The use of Fresnel propagation in 3D hard x-ray imaging of mineral matter**

XTOP

Karlsruhe, Germany 19. Sep - 22. Sep 2006

**SF4.BESSY**

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Oral

*Schumacher, G.; Darowski, N.; Zizak, I.; Klingelhöffer, H.; Neumann, W.***Time dependence of gamma gamm-prime Lattice Mismatch in Creep-deformed Single Crystal Superalloy SC16 at 1173 K**International Conference on Processing & Manufacturing of advanced Materials  
Vancouver, Canada 02. Jul - 08. Jul 2006

Oral

*Zizak, I.; Darowski, N.; Klaumünzer, S.; Assmann, W.; Gerlach, J.***Grain rotation in nanocrystalline layers induced by swift heavy ions.**15th International Conference on Ion Beam Modification of Materials  
Taormina, Italien 18. Sep - 22. Sep 2006

Poster

*Zizak, I.; Darowski, N.; Klaumünzer, S.; Assmann, W.; Gerlach, J.***Kornrotation in nanokristallinen Schichten während der Bestrahlung mit schnellen schweren Ionen.**Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten  
2006  
Hamburg 04. Oct - 06. Oct 2006**SF1 - Methods and Instruments**

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**SF1.Dynamics**

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Oral

*Habicht, K.; Aynajian, P.; Keller, T.; Mezei, F.; Keimer, B.***Effect of the Superconducting Transition on Phonon Lifetimes in Nb investigated with the Neutron Resonance Spin-Echo technique**Polarised Neutrons in Condensed Matter Investigations (PNCMI 2006), Berlin, Germany  
Berlin, 25. Sep - 28. Sep 2006**SF1.Methods**

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Poster

*Clemens, D.; Mezei, F.***VSANS - a new opportunity for soft matter investigations**5th PSI Summer School on Condensed Matter Research: Neutron, X-ray and Muon Studies of Nano Scale Structures  
Zuoz, Switzerland 19. Aug - 26. Aug 2006

Poster

*Clemens, D.; Peters, J.; Pappas, C.; Bleif, H.-J.; Mezei, F.***Instrumentation in Neutron Guide Hall II at BENSC**PNCMI 2006 - Polarized Neutrons in Condensed Matter Investigations  
Berlin 25. Sep - 28. Sep 2006

Poster

*Fehr, C.; Clemens, D.; Pappas, C.; Krist, Th.; Mezei, F.***Validation of a Numerically Designed Polarizing Cavity for the Spin-Echo Spectrometer at BENSC**PNCMI 2006 - Polarized Neutrons in Condensed Matter Investigations  
Berlin 25. Sep - 28. Sep 2006

Invited Talk

*Krist, T.***Developments in neutron optics**American Conference on Neutron Scattering  
Saint Charles, Ill, USA 18. Jun - 22. Jun 2006

Invited Talk

*Schneider, R.; Hofmann, M.; Genzel, C.*

**Ortsaufgelöste, zerstörungsfreie Ermittlung von Eigenspannungen im Innern von hochbelasteten industriellen Bauteilen**

Härtereikolloquium

Wiesbaden 11. Oct - 13. Oct 2006

Invited Talk

*Schneider, R.; Hofmann, M.; Genzel, C.*

**Ortsaufgelöste, zerstörungsfreie Ermittlung von Eigenspannungen im Innern von hochbelasteten industriellen Bauteilen**

AWT Fachausschuss Qualitätssicherung

Hagen 06. Dec - 06. Dec 2006

Oral

*Wiedenmann, A.; Keiderling, U.; Habicht, K.; M. Russina, M.; Gähler, R.*

**Time-resolved SANS studies of field-induced ordering in ferrofluids**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006 (SNI 2006)

Hamburg, Germany 04. Oct - 06. Oct 2006

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### SF3.Nanostructures

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Oral

*Wiedenmann, A.; Keiderling, U.; Habicht, K.; Russina, M.; Gähler, R.*

**Time-resolved SANS studies (TISANE) of field induced ordering in Ferrofluids**

SAS 2006

Kyoto, Japan 09. Jul - 13. Jul 2006

Oral

*Wiedenmann, A.; Keiderling, U.; Habicht, K.; Russina, M.; Gähler, R.*

**Time-resolved SANS studies of field induced ordering in Ferrofluids**

XIII. Int. Conference on Small Angle Scattering

Kyoto, Japan 13. Jul - 13. Jul 2006

Oral

*Wiedenmann, A.; Keiderling, U.; Habicht, K.; Russina, M.; Gähler, R.*

**Time-resolved SANS studies of field induced ordering in Ferrofluids**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Hamburg, Germany 04. Oct - 04. Oct 2006

Oral

*Wiedenmann, A.; Keiderling, U.; Habicht, K.; Russina, M.; Gähler, R.*

**Microsecond dynamics of field-induced ordering in magnetic colloids studied by new time-resolved Small Angle Neutron Scattering techniques**

Ferrofluide Workshop

Benediktbeuren, Germany 27. Sep - 27. Sep 2006

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### SF3.Others

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Poster

*Manke, I.; Kardjilov, N.; Haibel, A.; Strobl, M.; Hilger, A.; Rack, A.; Zabler, S.; Treimer, W.; Banhart, J.*

**Industrial research at the Application Centre NIXE (Hahn-Meitner-Institut Berlin)**

ECNDT-9

Berlin 25. Sep - 29. Sep 2006

**SF6.Others**

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Poster

*H. N. Bordallo, W. Kalceff, D.N. Argyriou, M. Barthès, T. Seydel, C. Fehr, F. Juranyi***Hydrogen in N-Methylacetamide: Positions and dynamics of the hydrogen atoms using neutron scattering**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Hamburg 04. Sep - 05. Oct 2006

<b>SF2 - Magnetism</b>
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**SF2.Novel Mat.**

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Oral

*Argyriou, D.***Charge Localization and near zero in-plane thermal expansion in layered  $\text{Na}_x\text{CoO}_2$ ,  $x \sim 1/2$** 

2006 American Physical Society March Meeting

Baltimore USA 13. Mar - 17. Mar 2006

Invited Talk

*Argyriou, D.***Jahn-Teller Correlations and Dynamics in Manganites**

International Symposium on the Jahn-Teller Effects: Novel Aspects in Orbital Physics and Vibronic Dynamics of Molecules and Crystals

Trieste, Italy 28. Aug - 01. Sep 2006

Invited Talk

*Argyriou, D.***Opening the Devil's Flower: Complex Structure and Magnetism in Multiferroic Perovskite Manganites**

Self-organized Strongly Correlated Electron Systems

Seillac, France 29. May - 31. May 2006

Invited Talk

*Argyriou, D. N.***Opening the devils flower: complex magnetism in multiferroic perovskites manganites**

Theoretical and Experimental Magnetism Meeting

Abingdon, UK 03. Aug - 04. Aug 2006

Poster

*Britta Bohnenbuck, Jorg Stremper, Ioannis Zegkinoglou, Nadir Aliouane, Dimitri N. Argyriou, Sven Landsgesell, Martin v.Zimmermann***Investigation of multiferroic  $\text{TbMnO}_3$  and  $\text{DyMnO}_3$  in high magnetic fields**

German Conference for Research with Synchrotron Radiation, Neutrons and Ion Beams at Large Facilities 2006

Hamburg 04. Oct - 06. Oct 2006

Poster

*D. Argyriou, O. Prokhnenko, K. Kiefer, C. Milne***Possible evidence for weak charge ordering near half doping in  $\text{Na}_{0.46}\text{CoO}_2$** 

German Conference for Research with Synchrotron Radiation, Neutrons and Ion Beams at Large Facilities 2006

Hamburg 03. Oct - 04. Oct 2006

Invited Talk

*D. N. Argyriou, O. Prokhnenko, K. Kiefer, and C. J. Milne***Evidence for weak charge ordering above TN in near half doped  $\text{Na}_{0.46}\text{CoO}_2$** 

First International workshop on the physical properties of lamellar cobaltates

Orsay, France 16. Jul - 20. Jul 2006

Oral

*Dimitri Argyriou , L.C. Chapon , C. Milne , O. Prokhnenko , and P.G. Radaelli*

**Structural and Electronic properties of the Layered  $\text{NaxCoO}_2$**

DPG-Tagungen

Dresden 27. Mar - 31. Mar 2006

Oral

*Dimitri Argyriou, N. Aliouane, J. Stremper, I. Zegkinoglou, M. v. Zimmermann*

**Melting of magneto-electric state in  $\text{TbMnO}_3$  with c-axis aligned magnetic field**

German Conference for Research with Synchrotron Radiation, Neutrons and Ion Beams at Large Facilities  
2006

Hamburg 04. Oct - 05. Oct 2006

Oral

*Harini Barath, Minjung Kim, S.L. Cooper, I. Mahns, M. Ruebhausen, D.N. Argyriou*

**Investigation of coupling between antiferromagnetic and ferroelectric orders in  $\text{TbMnO}_3$  using magnetic field dependent Raman scattering**

2006 American Physical Society March Meeting

Baltimore USA 13. Mar - 17. Mar 2006

Oral

*Ilka Mahns, M. Bastjan, R. Rauer, G. Neuber, B. Schulz, S. Mueller, A. Rusydi, M. Ruebhausen, D. N. Argyriou, M. Kim, H. Barath, S.L. Cooper*

**Temperature depending studies of multiferroic  $\text{TbMnO}_3$  by spectral ellipsometry and Raman scattering**

2006 American Physical Society March Meeting

Baltimore, USA 13. Mar - 17. Mar 2006

Oral

*Ilka Mahns, M. Bastjan, R. Rauer, G. Neuber, B. Schulz, S. Mueller, A. Rusydi, M. Ruebhausen, D. N. Argyriou, M. Kim, H. Barath, S.L. Cooper*

**Resonant soft X-ray scattering from  $\text{LaMnO}_3$  and  $\text{SmMnO}_3$  Superlattices**

2006 American Physical Society March Meeting

Baltimore USA 13. Mar - 17. Mar 2006

Oral

*Ilka Mahns, M. Bastjan, R. Rauer, G. Neuber, B. Schulz, S. Mueller, A. Rusydi, M. Ruebhausen, D. N. Argyriou, M. Kim, H. Barath, S.L. Cooper*

**Resonant soft X-ray scattering from multiferroic  $\text{TbMnO}_3$**

2006 American Physical Society March Meeting

Baltimore, USA 13. Mar - 17. Mar 2006

Oral

*J. Stremper , N. Aliouane , B. Bohnenbuck , D. N. Argyriou , I. Zegkinoglou , and M. von Zimmermann*

**Magnetic field induced linear magneto-elastic coupling in multiferroic  $\text{TbMnO}_3$**

DPG-Tagung

Dresden 27. Mar - 31. Mar 2006

Poster

*J.R. Veira , D.N. Argyriou , K. Kiefer , U. Amann , J.-U. Hoffmann , H.N. Bordallo , R. Almairac , Th. Hangleiter*

**Investigations on the coupling between multiferroic and structural properties of  $\text{BaMnF}_4$**

German Conference for Research with Synchrotron Radiation, Neutrons and Ion Beams at Large Facilities  
2006

Hamburg 04. Oct - 06. Oct 2006

Oral

*K. Berggold , T. Lorenz , J. Baier , D. Meier , J. Hemberger , D. Argyriou , A. Vasiliev , and J. Hemberger*

**Thermal transport in multiferroics**

DPG Tagung

Dresden 27. Mar - 31. Mar 2006



Oral

*Nadir Aliouane, Dimitri Argyriou, J. Stremper, I. Zegkinoglou, M. v. Zimmerman***Field induced linear magneto-elastic coupling in multiferroic TbMnO<sub>3</sub>**

2006 American Physical Society March Meeting

Baltimore, USA 13. Mar - 17. Mar 2006

Oral

*Nadir Aliouane, Dimitri Argyriou, and Sven Landsgesell***Field induced incommensurate to commensurate magnetic transition in multiferroic TbMnO<sub>3</sub>**

DPG-Tagung

27. Mar - 31. Mar 2006

Poster

*O Prokhnenko, S. Landsgesell, D. Argyriou, L.C. Chapon***Magnetic Ordering in Multiferroic DyMnO<sub>3</sub>**

German Conference for Research with Synchrotron Radiation, Neutrons and Ion Beams at Large Facilities 2006

Hamburg 04. Oct - 06. Oct 2006

Oral

*Prokhnenko, O.; Feyerherm, R.; Dudzik, E.; Landsgesell, S.; Aliouane, N.; Chapon, L.C.; Argyriou, D.N.***Induced Dy spin-order enhancing the ferroelectric polarization in DyMnO<sub>3</sub>**

5th Workshop on "Orbital Physics and Novel Phenomena in Transition Metal Oxides?"

Berlin 11. Oct - 12. Oct 2006

Poster

*Sven Landsgesell, Oleksandr Prokhnenko, Nadir Aliouane, Dimitri Argyriou***Evolution of incommensurate magnetic order from A-type antiferromagnetism in Nd<sub>1-x</sub>Y<sub>x</sub>MnO<sub>3</sub>**

German Conference for Research with Synchrotron Radiation, Neutrons and Ion Beams at Large Facilities 2006

Hamburg 04. Oct - 06. Oct 2006

Invited Talk

*Tennant, A.***Crystal structures of Na<sub>x</sub>CoO<sub>2</sub>**

ISIS-IOP workshop : Theoretical and Experimental Magnetism Meeting

Coseners House, Abingdon, UK 03. Aug - 04. Aug 2006

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**SF2.Others**

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Invited Talk

*Holub-Krappe, E.***On the Trail of Magnetic-Field Sense in the Animal Kingdom**

Int. Workshop on Magnetism and Synchrotron radiation

Strasbourg, France 06. Nov - 07. Nov 2006

Poster

*Prokhnenko, O.; Arnold Z.; Kuchin A.; Ritter C.; Isnard O.; Kamarad J.; Iwasieczko W.; Drulis, H.***MAGNETOSTRUCTURAL PROPERTIES OF Ce<sub>2</sub>Fe<sub>16</sub>MnDy (y = 0,1,2,3) UNDER PRESSURE**

International Conference on Magnetism

Kyoto 20. Aug - 25. Aug 2006

Poster

*Stahl, B.; Fleissner, G.; Falkenberg, G.; Fleisner, G.; Holub-Krappe, E.***BioXAS wanted: Magnetite and maghemite nanoparticles constitute the basis for iron mineral-based magnetoreception in homing pigeons**

13th Int. Conf. on X-ray Absorption Fine Structure

Stanford, CA, USA 09. Jul - 15. Jul 2006

Poster

*Stahl, B.; Fleissner, G.; Fleissner, G.; Holub-Krappe, E.*

**Magnetic Orientation in Birds: Maghemite and Magnetite Particles constitute the basis for iron-mineral-based avian magnetoreception.**

Int. Symposium on Scanning Microbeam, Satellite Meeting at the User's Meeting at BESSY

Berlin, Germany 06. Dec - 06. Dec 2006

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## SF2.Quantum Phenomena

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Poster

*Notbohm, S. Tennant, D.A.; Lake, B.; Canfield, P.C.; Fielden, J.; Kögerler, P.; Mikeska, H.-J.; Luckmann, C.; Telling, M.T.F*

**Temperature and Field Effects in the Gapped Quantum Magnet  $\text{Cu}(\text{NO}_3)_2 \cdot 2.5\text{D}_2\text{O}$**

International Conference of Magnetism

Kyoto, Japan 20. Aug - 25. Aug 2006

Invited Talk

*Tennant, A.*

**Measuring dynamical correlations in quantum magnets with neutrons**

INSTANS'06 Interdisciplinary Statistical and Field Theory Approaches to Nanophysics and Low-Dimensional Systems

Villa Olmo, Lake Como, Italy 16. Jun - 20. Jun 2006

Oral

*Tennant, A.; Lake, B.; Notbohm, S.*

**Exotic quantum phase in the spin-ladder compound  $\text{CaCu}_2\text{O}_3$**

ICM06 International Conference on Magnetism

Kyoto, Japan 21. Aug - 25. Aug 2006

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## SF2.Thin films

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Oral

*Andersson, C.; Konishi, T.; Holub-Krappe, E.; Karis, O.; Hunter Dunn, J.; Maletta, H.; Arvanitis, D.*

**Reversing the spin-reorientation in in-situ prepared Au/Co/Au ultra-thin films by means of XAFS**

13th Int. Conf. on X-ray Absorption Fine Structure

Stanford, CA, USA 09. Jul - 15. Jul 2006

Oral

*Arvanitis, D.; Andersson, C.; Konishi, T.; Holub-Krappe, E.; Karis, O.; Maletta, H.*

**Magnetization reorientation in Au/Co: in-situ prepared ultrathin films**

Frühjahrstagung Festkörperphysik der DPG

Dresden, Germany 27. Mar - 31. Mar 2006

Poster

*Hahlin, A.; Holub-Krappe, E.; Maletta, H.; Andersson, C.; Karis, O.; Hunter Dunn, J.; Arvanitis, D.*

**Novel findings on the temperature driven spin reorientation in Au/Co/Au**

13th Int. Conf. on X-ray Absorption Fine Structure

Stanford, CA, USA 09. Jul - 15. Jul 2006

Invited Talk

*Holub-Krappe, E.*

**Soft X-Ray Studies of Spin Reorientation in Thin Au/Co/Au Films**

Int. Workshop on Properties of Ultrathin Magnetic Films

Bialowieza, Poland 07. Sep - 09. Sep 2006

Poster

*Holub-Krappe, E.; Andersson, C.; Konishi, T.; Karis, O.; Maletta, H.-J.; Arvanitis, D.***Spin Reorientation in Thin Au/Co/Au Films: in-situ XMCD and EXAFS Study**

SOLEIL User's Meeting

Saint Aubin/ Gif-sur-Yvette, France 18. Jan - 19. Jan 2006

Poster

*Holub-Krappe, E.; Andersson, C.; Konishi, T.; Karis, O.; Maletta, H.; Arvanitis, D.***Magnetization reorientation in Au/Co: In-situ prepared ultra-thin films**

International Workshop on Magnetism at SOLEIL

Saint Aubin/ Gif-sur-Yvette, France 16. Jan - 17. Jan 2006

Oral

*Holub-Krappe, E.; Hahlin, A.; Maletta, H.; Andersson, C.; Karis, O.; Hunter Dunn, J.; Arvanitis, D.***On the temperature driven reorientation in Au/Co/Au: the influence of the structure**

Frühjahrstagung Festkörperphysik der DPG

Dresden, Germany 27. Mar - 31. Mar 2006

Poster

*M. Bastjan, A. Rusydi, G. Neuber, S. Singer, M. Ruebhausen, D.N. Argyriou<sup>2</sup>, N. Aliouane, M. Kim, H. Barath, S.L. Cooper***Role of the orbital-lattice interaction in multiferroic behavior**

German Conference for Research with Synchrotron Radiation, Neutrons and Ion Beams at Large Facilities 2006

Hamburg 04. Oct - 05. Oct 2006

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**SF3.Nanostructures**

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Oral

*Wiedenmann, A.; Keiderling, U.; Habicht, K.; Russina, M.; Gähler, R.***Time-resolved SANS studies (TISANE) of field induced ordering in Ferrofluids**

SAS 2006

Kyoto, Japan 09. Jul - 13. Jul 2006

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**SF6.Others**

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Poster

*B. Frick, J. F. Barthélémy, T. Seydel, D. Bazzoli, M. Thomas, H.N. Bordallo, K. Andersen, P. Courtois, L. Didier, F. Descamps, T. Mary, F. Rey, P. Thomas, P. Lachaume, F. Lapeyre, H. Schober***The ILL Millenium project for the neutron backscattering spectrometer IN16B**

ILL MILLENNIUM SYMPOSIUM

Grenoble, Frankreich 27. Apr - 29. Apr 2006

Poster

*Bordallo, H.N., Aldridge, L.P., Desmedt, A.***Water dynamics in micro-pores & interlayer space in cement paste**

Workshop 3rd International Workshop on Dynamics in Confinement

Grenoble, France 23. Mar - 26. Mar 2006

Poster

*Bordallo, H.N.; Argyriou, D.N.; Stempfer, J.; Barthès, M.; Dénoyer, F.***Negative thermal expansion and conformation changes in the smallest chiral amino acid, Alanine**

DPG - German Physical Society

Dresden 27. Mar - 31. Mar 2006

Poster

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

**Understanding the role of water in the superconductor Na<sub>0.28</sub>CoO<sub>2</sub>·1.3H<sub>2</sub>O using inelastic neutron scattering**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Hamburg 04. Oct - 06. Oct 2006

Poster

*H. N. Bordallo, W. Kalceff, D.N. Argyriou, M. Barthès, T. Seydel, C. Fehr, F. Juranyi*

**Hydrogen in N-Methylacetamide: Positions and dynamics of the hydrogen atoms using neutron scattering**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Hamburg 04. Sep - 05. Oct 2006

Poster

*H.N. Bordallo, M. R. Johnson and D.N. Argyriou*

**Exchange and Lattice correlations in La<sub>2-2x</sub>Sr<sub>1+2x</sub>Mn<sub>2</sub>O<sub>7</sub> evidenced by Inelastic Neutron Scattering (INS) and Density Functional Theory (DFT) calculations**

5th Workshop on Orbital Physics and Novel Phenomena in Transition Metal Oxides

Berlin 11. Oct - 12. Oct 2006

## SF3 - Materials

### SF3.Light weight mat.

Oral

*Babscán, N.; Vinod Kumar, G.S.; Murty, B.S.; Banhart, J.*

**Grain Refiners as Liquid Metal foam Stabilisers**

International Conference on Solidification Science and Processing 2006

Jaipur, India 19. Nov - 23. Nov 2006

Oral

*Garcia-Moreno, F.; Banhart, J.*

**Novel PM metal foaming route - without blowing agent**

EUFOAM 2006

Potsdam, Germany 02. Jul - 06. Jul 2006

Oral

*Hoell, A.; Haug, J.; Tatchev, D.; Haas, S.; Boesecke, P.; Wollgarten, M.; Sahoo, K. L.; Banhart, J.*

**Element sensitive investigation of phase formation in Al<sub>94-x</sub>Ni<sub>6</sub>La<sub>x</sub> (x=5, 7) alloys by SAXS**

Small Angle Scattering 2006 (SAS 2006)

Kyoto, Japan 09. Jul - 13. Jul 2006

Poster

*Mukherjee, Manas; Garcia-Moreno, Francisco; Banhart, John*

**Solification of Metal Foams**

6th European Conference on Foams, Emulsions and Applications (EuFoam 2006)

Potsdam, Germany 02. Jul - 06. Jul 2006

Oral

*Mukherjee, Manas; Garcia-Moreno; Banhart, J.*

**Anomalous behaviour of aluminium foams during solidification**

ICSSP 2006

Jaipur, India 19. Nov - 23. Nov 2006

Oral

*Sahoo, K.L.; Banhart, J.***Effect of solidification rate and composition on microstructure and nanocrystallization in Al-Ni-La metallic glasses**

International Conference on Solidification Science and Processing - ICSSP III

Jaipur, India 20. Nov - 23. Nov 2006

Oral

*Shabestari, S.G.; Wanderka, N.; Garcia-Moreno, F.; Seeliger, W.; Banhart, J.***Optimisation of Aluminium Foam Sandwich (AFS) Panel Strength by Different Heat Treatments**

ICAA 10

Vancouver, Kanada 09. Jul - 13. Jul 2006

Poster

*Wollgarten, M.; Hoell, A.; Haug, J.; Tatchev, D.; Haas, S.; Boesecke, P.; Sahoo, K.L.; Banhart, J.***Investigation of the Early Precipitation Stages in Amorphous Al-Ni-La Alloys by TEM and SAXS**

Int. Microscopy Congress IMC 16, Sapporo

Sapporo, Japan 03. Sep - 08. Sep 2006

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**SF3.Microstructure**

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Invited Talk

*Abromeit, C.***Phase changes induced by various irradiations**

Vortrag zum Abschied von Dr. R. Gotthardt an der EPFL

EPFL Lausanne 09. Jun - 09. Jun 2006

Invited Talk

*Abromeit, C.; Lazarev, N.; Gotthardt, R.; Schäublin, R.***Molecular Dynamics Simulation of Swift-Ion-Induced Phase Transformation in a Model NiAl Alloy**

E-MRS 2006

Warschau, Polen 04. Sep - 08. Sep 2006

Oral

*Chang, C.S.T.; Duggan, B.J.***Annealing behaviour of AA6111 with different initial precipitation states**

International Conference on Aluminium

Essen, Germany 21. Sep - 22. Sep 2006

Poster

*Del Genovese, D.; Mukherji, D.; Rösler, J.; Kindrachuk, V.; Wanderka, N.; Banhart, J.***Chemistry Modifications of Inconel 706 for Improved Microstructural Stability**

8th Liège 2006 Konferenz

Liege, France 18. Sep - 20. Sep 2006

Oral

*Griesche, A.; Macht, M.-P.; Frohberg, G.; Chathoth, S.M.; Meyer, A.; Das, S. K.; Horbach, J.***Diffusion in Al<sub>80</sub>Ni<sub>20</sub> melts: experiments and simulation**

TMS 2006

San Antonio, Texas 13. Mar - 17. Mar 2006

Oral

*Höring, S.; Wanderka, N.; Neumann, W.; Banhart, J.; Leitner, H.; Clemens, H.***CORRAX - A Ti-free stainless maraging steel investigated by 3 dimensional atom probe**

DPG/EPS - Frühjahrstagung 2006

Dresden, Germany 27. Mar - 31. Mar 2006

Oral

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

**The Re-containing Inconel 706 Alloy: 3DAP Measurements**

DPG-Tagung

Dresden, Germany 27. Mar - 31. Mar 2006

Oral

*LaGrange, T.; Gotthardt, R.; Abromeit, C.; Klaumünzer, S.; Schumacher, G.*

**The Influence of Electronic Stopping Interactions on the Microstructural Modification Observed in High Energy Ion Irradiated NiTi Thin Films**

Materials Research Society Fall Meeting

Boston, USA 27. Nov - 01. Dec 2006

Invited Talk

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

**MD simulation of heterogeneous martensitic phase transformations in NiAl**

ESOMAT 2006

Bochum, Germany 10. Sep - 15. Sep 2006

Oral

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

**Modeling of Local Order Phase Transformations in Binary Alloys**

Materials Research Society Fall Meeting

Boston, USA 27. Nov - 01. Dec 2006

Oral

*Matsumura, S.; Hata, S.; Kimura, K.; Takahashi, T.; Abromeit, C.*

**Time-evolution of Short-Range and Long-Range Ordering in Ni<sub>4</sub>Mo Alloys Studied by Advanced Transmission Electron Microscopy and Monte Carlo Simulation**

Materials Research Society Fall Meeting

Boston, USA 27. Nov - 01. Dec 2006

Poster

*Mechler, S.; Wanderka, N.; Macht, M.-P.; Schubert-Bischoff, P.; Schumacher, G.; Klaumünzer, S.*

**Swift-Heavy Ion induced amorphization by ion tracks in quasicrystalline Zr-Ti-Ni-Cu**

MRS Fall Meeting 2006

Boston, USA 27. Nov - 01. Dec 2006

Oral

*Vierke, J.; Balog, M.; Nagy, J.; Simancik, F.; Wollgarten, M.; Banhart, J.*

**Nanocrystallization in Gas-atomised Al-Ni-La Metallic Glass and its compaction using Equal Channel Angular Pressing**

ISMAM 2006

Warschau, Poland 27. Aug - 31. Aug 2006

Oral

*Vierke, J.; Wollgarten, M.; Banhart, J.*

**Compaction of Amorphous and Partially Crystallised Al-Ni-La Alloys**

DPG Tagung

Dresden, Germany 27. Mar - 31. Mar 2006

Poster

*Wanderka, N.; Bakai, A.; Abromeit, C.; Isheim, D.; Seidman, D.*

**Effects of 10 MeV electron irradiation on the precipitate microstructure of a Ni-Mo based Hastelloy studied by transmission electron microscopy and atom-probe tomography based "Hastelloy" alloy after 10 MeV electron irradiation**

The Joint 19th International Vacuum Nanoelectronics Conference and 50th International Field Emission Symposium

Guilin, China 17. Jul - 20. Jul 2006

Invited Talk

*Wanderka, N.; Radigue, B.; Sahoo, K.L.; Banhart, J.*

**Crystallization Behavior of Al<sub>87</sub>Ni<sub>5</sub>La<sub>7</sub>Zr<sub>1</sub> Metallic Glass**

Thermec 2006

Vancouver, Kanada 03. Jul - 08. Jul 2006

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### SF3.Nanostructures

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Oral

*Heinemann, A.; Wiedenmann, A.; Kammel, M.*

**SANS signatures of local magnetic colloid structure reordering under external magnetic field variation**

SAS 2006

Kyoto, Japan 09. Jul - 13. Jul 2006

Poster

*Heinemann, A.; Wiedenmann, A.; Kammel, M.; Pop, L.M.*

**Separating different types of ordering in magnetic fluids with polarised small-angle neutron scattering**

Polarised Neutrons in Condensed Matter Investigation - PNCFI 2006

Berlin, Germany 25. Sep - 28. Sep 2006

Poster

*Keiderling, U.; Wiedenmann, A.*

**Field-dependent relaxation behavior of Co-ferrofluid investigated with stroboscopic time-resolved SANS**

SAS 2006

Kyoto, Japan 09. Jul - 13. Jul 2006

Oral

*Keiderling, U.; Wiedenmann, A.*

**Field-dependent relaxation behaviour of Co-ferrofluid investigated with stroboscopic time-resolved SANS**

Polarised Neutrons in Condensed Matter Investigations

Berlin, Germany 25. Sep - 28. Sep 2006

Poster

*Perroud, O.; Wiedenmann, A.; Kumar, G.; Eckert, J.*

**Small-angle neutrons scattering study of magnetic domains in Nd-Fe-Co-Al alloys by use of polarized neutrons**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Universität Hamburg 04. Oct - 06. Oct 2006

Oral

*Perroud, O.; Wiedenmann, A.; Kumar, G.; Eckert, J.; Kohlbrecher, J.*

**Influence of Nd-nanoparticles on hard magnetic properties of bulk amorphous alloys studied by small-angle neutrons scattering**

Nano 2006

Bangalore, Indien 20. Aug - 25. Aug 2006

Invited Talk

*Wiedenmann, A.*

**Polarised Small Angle Neutron Scattering**

School of Polarised Neutron Scattering

Berlin, Germany 19. Sep - 22. Sep 2006

Invited Talk

*Wiedenmann, A.*

**Nanostructures as probed by Polarized Small Angle Neutron Scattering**

JCNS Symposium and European User Meeting

Jülich, Germany 16. Feb - 16. Feb 2006

Invited Talk

*Wiedenmann, A.*

**Magnetic Nanostructures Investigated by Small Angle Neutron Scattering**

VIII School of Neutron Scattering

Santa Margherita di Pula, Italy 25. Sep - 06. Oct 2006

Oral

*Wiedenmann, A.; Keiderling, U.; Habicht, K.; Russina, M.; Gähler, R.*

**Time-resolved SANS studies (TISANE) of field induced ordering in Ferrofluids**

SAS 2006

Kyoto, Japan 09. Jul - 13. Jul 2006

Oral

*Wiedenmann, A.; Keiderling, U.; Habicht, K.; Russina, M.; Gähler, R.*

**Microsecond dynamics of field-induced ordering in magnetic colloids studied by new time-resolved Small Angle Neutron Scattering techniques**

Ferrofluide Workshop

Benediktbeuren, Germany 27. Sep - 27. Sep 2006

Oral

*Wiedenmann, A.; Keiderling, U.; Habicht, K.; Russina, M.; Gähler, R.*

**Time-resolved SANS studies of field induced ordering in Ferrofluids**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Hamburg, Germany 04. Oct - 04. Oct 2006

Oral

*Wiedenmann, A.; Keiderling, U.; Habicht, K.; Russina, M.; Gähler, R.*

**Time-resolved SANS studies of field induced ordering in Ferrofluids**

XIII. Int. Conference on Small Angle Scattering

Kyoto, Japan 13. Jul - 13. Jul 2006

Oral

*Wiedenmann, A.; Keiderling, U.; Kammel, M.; Heinemann, A.; May, R.P.; Dewhurst, Ch.*

**Statics and dynamics of field induced ordering in Ferrofluids studied by Polarised Small Angle Neutron Scattering**

Nanotech 2006

Boston, USA 07. May - 11. May 2006

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### SF3.Others

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Poster

*Manke, I.*

**Application Centre NIXE at HMI Berlin**

Industrieforum (dt. Synchrotron Einrichtungen)

Karlsruhe, Germany 17. Nov - 17. Nov 2006

Poster

*Manke, I.; Kardjilov, N.; Haibel, A.; Strobl, M.; Hilger, A.; Rack, A.; Zabler, S.; Treimer, W.; Banhart, J.*

**Industrial research at the Application Centre NIXE (Hahn-Meitner-Institut Berlin)**

ECNDT-9

Berlin 25. Sep - 29. Sep 2006



**SF4 - Structure and Dynamics**

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**SF3. Microstructure**

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Oral

*LaGrange, T.; Gotthardt, R.; Abromeit, C.; Klaumünzer, S.; Schumacher, G.***The Influence of Electronic Stopping Interactions on the Microstructural Modification Observed in High Energy Ion Irradiated NiTi Thin Films**

Materials Research Society Fall Meeting

Boston, USA 27. Nov - 01. Dec 2006

Poster

*Mechler, S.; Wanderka, N.; Macht, M.-P.; Schubert-Bischoff, P.; Schumacher, G.; Klaumünzer, S.***Swift-Heavy Ion induced amorphization by ion tracks in quasicrystalline Zr-Ti-Ni-Cu**

MRS Fall Meeting 2006

Boston, USA 27. Nov - 01. Dec 2006

**SF4. Dynamics**

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Poster

*Fadanelli, R.C.; Grande, P.L.; and Schiwietz, G.***Improved molecular perturbative convolution approximation model**

22nd Int. Conf. on Atomic Collisions in Solids (ICACS22)

Berlin 21. Jul - 26. Jul 2006

Poster

*Grande, P.L and Schiwietz, G.***Improved energy-loss formulas for high resolution ion-beam analysis**

22nd Int. Conf. on Atomic Collisions in Solids (ICACS22)

Berlin 21. Jul - 26. Jul 2006

Poster

*Hentz, A.; Parkinson, G.S.; Quinn, P.D.; Woodruff, D.P.; Grande, P.L.; Bailey, P.; Noakes, T.C.Q.; and Schiwietz, G.***Layer and trajectory-dependent energy loss in 100 keV H<sup>+</sup> scattering from Cu(111): experiment and theory**

22nd Int. Conf. on Atomic Collisions in Solids (ICACS22)

Berlin 21. Jul - 26. Jul 2006

Invited Talk

*Klaumünzer, S.***Solid-state physics with high-energy ion beams**

21st General Conference of the EPS Condensed Matter Division

Dresden 27. Mar - 31. Mar 2006

Invited Talk

*Klaumünzer, S.***Thermal-spike models for ion track physics: a critical examination**

Ion-Beam Science: Solved and unsolved problems

Kopenhagen 01. May - 15. May 2006

Invited Talk

*Mahnke, H.-E.***Ion-beam induced nano-sized metal clusters in glass**

Workshop SFB 418 "Irradiation-Assisted Methods of Formation and Modification of Metal Nanoparticles in Glasses"

MPI Halle 12. Sep - 12. Sep 2006

Oral

*Mahnke, H.-E.*

**Ionenstrahlinduzierte metallische Nanostrukturen in Gläsern**

Workshop

HMI Berlin 16. May - 17. May 2006

Oral

*Mahnke, H.-E.; Schattat, B.; Zizak, I.; Schubert-Bischoff, P.; Novakovic, N.; Koteski, V.*

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

DPG Frühjahrstagung

Dresden 27. Mar - 31. Mar 2006

Poster

*Pezzi, R.P.; Grande, P.L.; Schiwietz, G.; Copel, M.; and Baumvol, I.J.R.*

**Energy loss at zero impact parameter for high resolution depth profiling using medium energy ion scattering**

22nd Int. Conf. on Atomic Collisions in Solids (ICACS22)

Berlin 21. Jul - 26. Jul 2006

Oral

*Roth, M.; Staufenbiel, F.; Czerski, K.; Schiwietz, G.; Grande, P.L.*

**Angular distributions of Auger electrons: New insights into the ion-track dynamics? (selected oral contribution)**

22nd Int. Conf. on Atomic Collisions in Solids (ICACS22)

Berlin, Germany 21. Jul - 26. Jul 2006

Invited Talk

*Schiwietz, G.*

**Auger-electron emission in heavy-ion - surface collisions (invited progress report)**

16th International Workshop on Inelastic Ion-Surface Collisions (IISC-16)

Hernstein, Austria 17. Sep - 22. Sep 2006

Poster

*Silva, M.R.; Barbosa, L.G.; Grande, P.L.; Roth, M.; Schattat, B.; Schiwietz, G.; and Papaléo, R.M.*

**Cratering on polymers in the electronic stopping regime: dependence on the primary ion charge state**

22nd Int. Conf. on Atomic Collisions in Solids (ICACS22)

Berlin 21. Jul - 26. Jul 2006

## SF4.Structures

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Poster

*Birkholz, M.; Zizak, I.; Darowski, N.; Wallat, I.; Zaumseil, P.; Kittler, M.; Heyn, M.P.*

**GID and GISAXS characterization of biomolecules on semiconductors.**

BEESY Users' Meeting 2006

Berlin 07. Dec - 08. Dec 2006

Oral

*Darowski, N., Zizak I.; Schumacher, G.*

**Röntgendiffraktionsanalyse des Amorphisierungsverhaltens von einkristallinem InP nach Bestrahlung mit 350 MeV Au Ionen.**

Workshop 'Ionenstrahlphysik und -technologie' des Leibniz-Institutes für Oberflächenmodifizierung IOM

Leipzig 11. Apr - 12. Apr 2006

Poster

*Koteski, V.; Zhou, H.; Farangis, B.; Hofmann, D.M.; Meyer, B.K.; Mahnke, H.-E.*

**Local structure around Mn in Mn containing ZnO nanocrystals**

E -MRS 2006 Fall meeting, Symposium F

Warschau 03. Sep - 08. Sep 2006

Poster

*Radisavljevic, I.; Ivanovic, N.; Novakovic, N.; Romcevic, N.; Mahnke, H.-E.*

**Local structures in Pb<sub>1-x</sub>MnxTe systems**

EXRS 2006, European Conference on X-Ray Spectrometry

Paris 19. Jun - 23. Jun 2006

Poster

*Radisavljevic, I.; Ivanovic, N.; Novakovic, N.; Romcevic, N.; Mahnke, H.-E.*

**EXAFS Studies of Ga Doped Pb<sub>1-x</sub>MnxTe**

6th International Conference of the Balkan Physical Union (BPU-6)

Istanbul 22. Aug - 26. Aug 2006

Oral

*Schumacher, G.; Darowski, N.; Zizak, I.; Klingelhöffer, H.; Neumann, W.*

**Temperature Dependence of Lattice Distortion in Strongly Creep-deformed Single Crystal Superalloy SC16**

International Conference on Processing & manufacturing of advanced materials

Vancouver, Canada 02. Jul - 08. Jul 2006

Oral

*Schumacher, G.; Darowski, N.; Zizak, I.; Klingelhöffer, H.; Neumann, W.*

**Lattice Distortion in Creep-deformed Single Crystal Superalloy SC16 Measured by means of X-Ray Diffraction**

8th Biennial Conference on High Resolution X-Ray Diffraction and Imaging (XTOP2006)

Baden-Baden 18. Sep - 22. Sep 2006

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**SF5 - Theory**

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**SF5.Biosystems**

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Oral

*Falcke, M.*

**Reading the pattern in living cells - the Physics of Calcium signalling**

Frühjahrstagung des AK Festkörperphysik der DPG

Dresden 27. Mar - 30. Mar 2006

Invited Talk

*Falcke, M.*

**Oscillation Mechanism of Intracellular Calcium Dynamics**

Joint SIAM-SMB conference on the life sciences 2006

Raleigh, USA 31. Jul - 04. Aug 2006

Invited Talk

*Falcke, M.*

**Spatial aspects of intracellular Ca<sup>2+</sup> signalling**

Gordon Research Conference Theoretical Biology & Biomathematics

Tilton, USA 04. Jun - 09. Jun 2006

Oral

*Falcke, M.*

**By chance or by the clock: How do concentrations in cells oscillate?**

Frühjahrstagung des AK Festkörperphysik der DPG

Dresden 27. Mar - 31. Mar 2006

Invited Talk

*Falcke, M.*

**Mechanism of IP<sub>3</sub> induced intracellular Ca<sup>2+</sup> oscillations**

Conference of the European Study Group on Cardiovascular Oscillations 2006

Jena 15. May - 17. May 2006

Oral

*Straube, R.*

**About a common origin of bursting oscillations and (quasi-)periodic behavior on a 2-torus**

Harz-Seminar 2006

Hahnenklee (b Goslar) 23. Feb - 26. Feb 2006

Oral

*Straube, R.; Flockerzi, D; Hauser, M. J. B.*

**2-tori and bursting oscillations close to a generalized Hopf bifurcation in the fast subsystem**

Frühjahrstagung des Dachverbands Dynamik und Statistische Physik der Deutsch-Physikalischen Gesellschaft

Dresden 27. Mar - 31. Mar 2006

Oral

*Thul, R., Falcke, M.*

**The emergence of Ca<sup>2+</sup> puffs as intracellular escape process**

DPG Frühjahrstagung

Dresden 26. Mar - 31. Mar 2006

## SF5.Soft Matter

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Invited Talk

*Höfling, F.*

**Understanding the Physical Properties of the Cell Cytoskeleton**

IBM Workshop

Forschungszentrum Jülich 22. Feb - 23. Feb 2006

Oral

*Höfling, F.*

**Localization Transition of the 3D Lorentz Model and Continuum Percolation**

DPG - spring meeting of the Division Condensed Matter

Dresden 26. Mar - 31. Mar 2006

Poster

*Höfling, F.; Franosch, T.; Frey, E.*

**Transport of a Needle in a Random Environment**

Bio-Systems Conference, Berlin 2006

Berlin 26. Jun - 29. Jun 2006

Poster

*Höfling, F.; Franosch, T.; Frey, E.*

**Transport of a Needle in a Random Environment**

DPG - spring meeting of the Division Condensed Matter

Dresden 27. Mar - 31. Mar 2006

Poster

*Höfling, F.; Franosch, T.; Frey, E.*

**Localization Transition of the 3D Lorentz Model and Continuum Percolation**

X. International Workshop on Disordered Systems

Molveno (Italien) 18. Mar - 21. Mar 2006

Poster

*Höfling, F.; Franosch, T.; Frey, E.*

**Transport of a Needle in a Random Environment**

2nd International Workshop on Dynamics in Viscous Liquids

Mainz 09. Apr - 12. Apr 2006

**SF6 - Trace Elements****SF6.Analysis**

Invited Talk

*Behne, D.; Alber, D.; Kyriakopoulos, A.***Selenstatus und Selenverteilung in gewebe und Monitormaterialien nach Langzeitsupplementation mit Selen-Hefe**

Gemeinsame Herbsttagung HMI - GSF

Berlin, Deutschland 06. Dec - 07. Dec 2006

Poster

*Bertelsmann, H., Behne, D., Kyriakopoulos, A.***Investigation on the biological role of the selenoprotein sperm nuclei glutathione peroxidase during spermiogenesis.**

Macro and Trace Elements, 23. Workshop 2006

Jena, Deutschland 27. Sep - 27. Sep 2006

Invited Talk

*Bertelsmann, H.; Sieme, H.; Kühbacher, M.; Weseloh, G.; Kyriakopoulos, A.***Role of the trace elements in modulating reactive oxygen species in the male reproductive system: a study on equine semen**

Gemeinsame Herbsttagung HMI - GSF

Berlin, Deutschland 06. Dec - 07. Dec 2006

Poster

*Graebert, A.; Bräuer, A.; Savaskan, N.; Kyriakopoulos, A.***Selenocysteinylase - Lokalisation und erste Funktionsstudien in HepG2**

Gemeinsame Herbsttagung HMI - GSF

Berlin, 06. Dec - 07. Dec 2006

Invited Talk

*Grbavac, I.; Weda, N.; Wolf, C.; Plotnikov, A.; Alber, D.; Kühbacher, M.; Behne, D.; Kyriakopoulos, A.***Identification of metal-containing proteins in the prostate of the rat**

Gemeinsame Herbsttagung HMI - GSF

Berlin, Deutschland 06. Dec - 07. Dec 2006

Poster

*Grbavac, I.; Wolf, C.; Kühbacher, M.; Behne, D.; Kyriakopoulos, A.***Distribution of manganese and selenium in the cytosoles and sections of the rat prostate**

Macro and Trace Elements, 23 Workshop 2006

Jena, Deutschland 27. Sep - 27. Sep 2006

Oral

*Grbavac, I.; Wolf, C.; Kühbacher, M.; Behne, D.; Kyriakopoulos, A.***Distribution of manganese and selenium in the cytosoles and sections of the rat prostate**

23rd Workshop on Macro and Trace Elements

Jena, Germany 27. Sep - 27. Sep 2006

Poster

*Kühbacher, M.; Falkenberg, G.; Grünewald, B.; Fischer, J.; Donath, T.; Beckmann, F.; Behne, D.; Kyriakopoulos, A.***2D and 3D Neuroimaging with X-Rays**

HASYLAB Users Meeting

Hamburg 27. Jan - 27. Jan 2006

## Poster

*Kühbacher, M.; Falkenberg, G.; Grünewald, B.; Schade, U.; Bartel, J.; Grbavac, I.; Bukalis, G.; Alsber, D.; Behne, D.; Kyriakopoulos, A.*

**Metalloid- und Metalloproteine - mit Neutronen und Photonen sichtbar gemacht**

Gemeinsame Herbsttagung HMI - GSF

Berlin, Deutschland 06. Dec - 07. Dec 2006

## Invited Talk

*Kühbacher, M.; Falkenberg, G.; Grünewald, B.; Zabler, S.; Haibel, A.; Behne, D.; Kyriakopoulos, A.*

**Auf den Spuren von Spurenelementen in großen und kleinen Gehirnen**

Gemeinsame Herbsttagung HMI - GSF

Berlin, Deutschland 06. Dec - 07. Dec 2006

## Oral

*Kyriakopoulos, A.; Grbavac, I.; Kühbacher, M.*

**Selenoproteom of the Prostate Gland**

12 International Congress on Hormonal Steroids and Hormones and Cancer

Athens, Greece 13. Sep - 16. Sep 2006

## Invited Talk

*Plotnikov, A.; Wolf, C.; Bertelsmann, H.; Kyriakopoulos, A.*

**Laserablation ICP Massenspektrometrie in der Bioanalytik - Möglichkeiten, Probleme und Perspektiven**

Gemeinsame Herbsttagung HMI - GSF

Berlin, Deutschland 06. Dec - 07. Dec 2006

## Invited Talk

*Schwarm, A.; Ortmann, S.; Wolf, C.; Kühne, R.; Clauss, M.*

**Particle retention time in pygmy hippo and collared peccary compared to cattle - preliminary results**

Gemeinsame Herbsttagung HMI - GSF

Berlin, Deutschland 06. Dec - 07. Dec 2006

## Oral

*Wenda, N.; Grbavac, I.; Wolf, C.; Kühbacher, M.; Alber, D.; Bukalis, G.; Behne, D.; Kyriakopoulos, A.*

**Einfluss des Selenmangels auf die Expression verschiedener Prostata-Proteine**

Dialogveranstaltung mit Chemie-Industrie und Universitäten

Berlin, Germany 28. Jun - 28. Jun 2006

## Poster

*Wolf, C.; Wenda, N.*

**Speziation von Metalloproteinen: Veränderungen der Probe während der Messung**

Gemeinsame Herbsttagung HMI - GSF

Berlin, Deutschland 06. Dec - 07. Dec 2006

**SF6.Clinical app.**

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## Oral

*Wolf, C.; Schwarm, A.; Plotnikov, A.; Kühbacher, M.; Alber, D.*

**Probenangepasste Elementanalytik: unterschiedliche Verfahren zur Spurenelementbestimmung in biologischen Proben**

16. Jahrescolloquium, Interessengemeinschaft Atomspektroskopie Berlin (IGAS)

WISTA Adlershof, Berlin 08. Nov - 08. Nov 2006

## SF6.NAA

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Poster

*Alber, D.; Bukalis, G.; Kizilkaya, H.; Stanik, B.*

### **Neutronenaktivierungsanalyse (NAA) und Tracerproduktion am Forschungsreaktor BER II**

Gemeinsame Herbsttagung HMI - GSF

Berlin, Deutschland 06. Dec - 07. Dec 2006

## SF6.Others

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Poster

*B. Frick, J. F. Barthélémy, T. Seydel, D. Bazzoli, M. Thomas, H.N. Bordallo, K. Andersen, P. Courtois, L. Didier, F. Descamps, T. Mary, F. Rey, P. Thomas, P. Lachaume, F. Lapeyre, H. Schober*

### **The ILL Millenium project for the neutron backscattering spectrometer IN16B**

ILL MILLENNIUM SYMPOSIUM

Grenoble, Frankreich 27. Apr - 29. Apr 2006

Poster

*Bordallo, H.N. , Aldridge, L.P., Desmedt, A.*

### **Water dynamics in micro-pores & interlayer space in cement paste**

Workshop 3rd International Workshop on Dynamics in Confinement

Grenoble, France 23. Mar - 26. Mar 2006

Poster

*Bordallo, H.N.; Argyriou, D.N.; Stempfer, J.; Barthès, M.; Dénoyer, F.*

### **Negative thermal expansion and conformation changes in the smallest chiral amino acid, Alanine**

DPG - German Physical Society

Dresden 27. Mar - 31. Mar 2006

Poster

*Bordallo, H.N.; Frick, B.; Seydel, T; Schober, H.*

### **Simulation results on the backscattering spectrometer IN16B**

ILL MILLENNIUM SYMPOSIUM

Grenoble - France 27. Apr - 29. Apr 2006

Poster

*H. N. Bordallo*

### **Remarkable physical properties triggered by dynamical Jahn-Teller effect in the chiral amino-acid Alanine**

International Symposium on the Jahn-Teller Effects: Novel Aspects in Orbital Physics and Vibronic Dynamics of Molecules and Crystals

Trieste, Italy 28. Aug - 31. Aug 2006

Poster

*H. N. Bordallo, D.N. Argyriou, J. Stempfer, C. Fehr, M. Barthès, F. Dénoyer, J.-U. Hoffmann*

### **Extraordinary Negative Thermal Expansion in the Smallest Chiral Amino Acid, Alanine.**

Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Hamburg 04. Oct - 06. Oct 2006

Poster

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

### **Understanding the role of water in the superconductor Na<sub>0.28</sub>CoO<sub>2</sub>·1.3H<sub>2</sub>O using inelastic neutron scattering**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Hamburg 04. Oct - 06. Oct 2006

Poster

*H. N. Bordallo, W. Kalceff, D.N. Argyriou, M. Barth`es, T. Seydel, C. Fehr, F. Juranyi*

**Hydrogen in N-Methylacetamide: Positions and dynamics of the hydrogen atoms using neutron scattering**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Hamburg 04. Sep - 05. Oct 2006

Poster

*H.N. Bordallo, M. R. Johnson and D.N. Argyriou*

**Exchange and Lattice correlations in La<sub>2</sub>-2xSr<sub>1+2x</sub>Mn<sub>2</sub>O<sub>7</sub> evidenced by Inelastic Neutron Scattering (INS) and Density Functional Theory (DFT) calculations**

5th Workshop on Orbital Physics and Novel Phenomena in Transition Metal Oxides

Berlin 11. Oct - 12. Oct 2006

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## SF6. Proteins

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Poster

*Bartz, T.; Wolf, C.; Alber, D.; Zimmer, A.; Kyriakopoulos, A.*

**Verteilung von Spurenelementen in Geweben des gastro-intestinalen Trakts der Ratte**

Gemeinsame Herbsttagung HMI - GSF

Berlin, Deutschland 06. Dec - 07. Dec 2006

Oral

*Bertelsmann, H.; Behne, D.; Kyriakopoulos, A.*

**Investigation on the biological role of the selenoprotein sperm nuclei glutathione peroxidase during spermiogenesis**

23rd Workshop on Macro and Trace Elements

Jena, Germany 27. Sep - 27. Sep 2006

Poster

*Bukalis, K.; Alber, D.; Behne, D.; Kyriakopoulos, A.*

**The effects of selenium diet on expression of selenoproteins in the respiratory tract of the rat**

Cell Signalling World, Signal Transduction Pathways as therapeutic targets

Luxemburg 25. Jan - 28. Jan 2006

Poster

*Bukalis, K.; Behne, D.; Kyriakopoulos, A.*

**The biological role of arsenic in the rat. Combined studies using tracer technique and biochemical methods**

Gemeinsame Herbsttagung HMI - GSF

Berlin, Deutschland 06. Dec - 07. Dec 2006

Poster

*Bukalis, K.; Wolf, C.; Behne, D.; Kyriakopoulos, A.*

**Studies on the selenoproteome in the cultured cells of lung and trachea by gel electrophoretic techniques**

15th International Symposium on Capillary Electroseparation Techniques

Paris, Frankreich 26. Aug - 28. Aug 2006

Invited Talk

*Dalla Puppa, L.*

**Untersuchung der Effekte von Selen und Selenoproteinen bei der Aktivierung von Mikroglia gegen oxidativen Stress**

Gemeinsame Herbsttagung HMI - GSF

Berlin, Deutschland 06. Dec - 07. Dec 2006



Poster

*Grbavac, I.; Wenda, N.; Wolf, C.; Kühbacher, M.; Behne, D.; Kyriakopoulos, A.*

**Prevention of Prostate Cancer by Redox Processes**

12th international Congress on the Hormonal Steroids and Hormones and Cancer  
Athens, Greece 13. Sep - 16. Sep 2006

Oral

*Kyriakopoulos, A.*

**Trace Element and Trace Element Proteins and the Respiratory Tract Infections**

12th ICID

Lisboa, Portugal 15. Jun - 18. Jun 2006

Poster

*Kyriakopoulos, A.*

**Expression of Selenocysteine-containing Proteins in the Heart of the Rat investigated by 2D-Electrophoresis and MALDI-MS**

15th international Symposium on Capillary Electroseparation Techniques  
Paris, France 28. Aug - 30. Aug 2007

Oral

*Kyriakopoulos, A.;*

**Influence of Selenocystein-containing Proteins in the redox processes and antioxidant system**

31st FEBS Congress

Istanbul, Turkey 24. Jun - 29. Jun 2006

Poster

*Kyriakopoulos, A.; Wolf, C.; Bartz, T.; Bartel, J.; Graebert, A.*

**Verteilung selenhaltiger Proteine in Geweben mit glatter oder quergestreifter Muskulatur der Ratte**

Gemeinsame Herbsttagung HMI - GSF

Berlin, Deutschland 06. Dec - 07. Dec 2006

Invited Talk

*Savaskan, N.; Hahnen, E.; Kühbacher, M.; Behne, D.; Kyriakopoulos, A.; Eyüpoglu*

**A role for the Micronutrient selenium in glioma cell growth and brain invasion**

Gemeinsame Herbsttagung HMI - GSF

Berlin, Deutschland 06. Dec - 07. Dec 2006

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**SF7 - Measurement instrumentation**

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**SF7.Detector**

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Poster

*Bobkov V.V.; Gokov S.P.; Gričsyna V.V.; Gričsyna V.T.; Shevchenko D.I.; Alimov S.S.*

**Mechanisms of formation of sputtered particles in excited states at Ar<sup>+</sup> ion bombardment of oxide targets**

ICACS - 22: International Conference on Atomic Collisions in Solids

Berlin 21. Jul - 26. Jul 2006

Poster

*Bobkov V.V.; Onishchenko A.V.; Tishchenko L.P.; Peregon T.I.; Kovtunenکو Yu.I.; Starovoitov R.I.; Alimov S.S.*

**Investigation of lattice damage and ion-implanted deuterium retention in tungsten films**

ICACS - 22: International Conference on Atomic Collisions in Solids

Berlin 21. Jul - 26. Jul 2006

Poster

*Melnykov, V.; Litvinov, V.; Koppe, V.; Bobkov V.; Alimov S.*

**Some aspects of SIMS investigations of organic materials with use of glycerol matrix**

ICACS - 22: International Conference on Atomic Collisions in Solids

Berlin 21. Jul - 26. Jul 2006

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## SF7.Others

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Oral

*Wheldon, C.; Kokalova, Tz.; Thummerer, S.*

**Octupole-deformed molecular configurations in  $^{21}\text{Ne}^{\wedge*}$**

Spring Meeting of the German Physical Society

Munich, Germany 20. Mar - 24. Mar 2006

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## SF7.Q3D

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Invited Talk

*Avrigeanu, M.; von Oertzen, W.*

**On the  $\alpha$ -particle semi-microscopic optical potential at low energies**

International Symposium on Nuclear Astrophysics - Nuclei in the Cosmos - IX CERN

Geneva, Switzerland 25. Jun - 30. Jun 2006

Invited Talk

*Blazevic, A.; Bohlen, H. G.; von Oertzen, W.*

**A microscopic description of oxygen ions penetrating a carbon foil**

ICACS 2006, 22<sup>nd</sup> International Conference on Atomic Collisions in Solids

Berlin, Germany 21. Jul - 26. Jul 2006

Poster

*Blazevic, A.; Günther, M.; Korosty, S.; Rodriguez Prieto, G.; Rosmej, O.; Hoffmann, D.H.H.; Heßling, T.; Knobloch-Mass, R.; Pelka, A.; Pirzadeh, P.; Roth, M.; Schaumann, G.; Schollmeier, M.; Wamers, F.; Bohlen, H.G.; Oertzen, W. von*

**Ion beam interaction with a dense, laser produced plasma**

ICACS - 22: International Conference on Atomic Collisions in Solids

Berlin 21. Jul - 26. Jul 2006

Poster

*Blazevic, A.; Hoffmann, D.H.H.; Bohlen, H.G.; Oertzen, W. von*

**A microscopic description of oxygen ions penetrating a carbon foil**

ICACS - 22: International Conference on Atomic Collisions in Solids

21. Jul - 26. Jul 2006

Oral

*Bohlen, H. G.; Dorsch, T.; Kokalova, Tz.; von Oertzen, W.; Schulz, Ch.; Wheldon, C.*

**New Results on  $^{10}\text{Be}$  from Multi-Nucleon Transfer Reactions**

IX<sup>th</sup> International Conference on Nucleus-Nucleus Collisions 2006.

Rio de Janeiro, Brazil 28. Aug - 01. Sep 2006

Oral

*Mahgoup, M.; Bildstein, V.; Bohlen, H. G.; Dorsch, T.; Faestermann, R.; Gernhäuser, R.; Kröll, Th.; Krücken, R.; Kokalova, Tz.; Maier, L.; von Oertzen, W.; Wheldon, C.*

**Two-neutron transfer reaction using a Tritium target.**

Frühjahrstagung der DPG 2006

München, Germany 20. Mar - 24. Mar 2006

Oral

Zherebchevskii, V.; von Oertzen, W.; Kamanin, D.; Thummerer, S.; Bohlen, H.G.; Gebauer, B.; Kokalova, Tz.; Schulz, Ch.; Wheldon, C.

**Binary fission and Coplanar Ternary Cluster Decay from Hyper-deformed States in  $^{60}\text{Zn}$ .**

Frühjahrstagung der DPG 2006, Hadronen und Kerne

Munich, GER 20. Mar - 24. Mar 2006

<b>SFN1 - Magnetism and Superconductivity of Quantum Materials</b>
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**SF.N1**

Poster

*Guidi, T.*

**Inelastic neutron scattering study of the spin dynamics and quantum fluctuations in heterometallic antiferromagnetic molecular rings**

ECMM '06 European Conference on Molecular Magnetism

Tomar, Portugal 10. Oct - 15. Oct 2006

Poster

*Guidi, T.*

**Inelastic neutron scattering study of the spin dynamics and quantum fluctuations in heterometallic antiferromagnetic molecular rings**

ECMM '06 European Conference on Molecular Magnetism

Tomar, Portugal 10. Oct - 15. Oct 2006

Invited Talk

*Lake, B.*

**Field-Induced Antiferromagnetism in the Cuprate High-Temperature Superconductor  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ .**

American Physical Society March Meeting

Baltimore, USA 13. Mar - 17. Mar 2006

Invited Talk

*Lake, B.*

**Three-Dimensionality of Field-Induced Magnetism in  $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$**

8th International Conference on Materials and Mechanisms of Superconductivity

Dresden, Germany 09. Jul - 14. Jul 2006

Oral

*Lake, B.*

**Magnetism in Spin Ladders**

International Conference on Magnetism

Kyoto, Japan 20. Aug - 25. Aug 2006

Poster

*Lake, B.*

**Magnetic Excitation Spectrum of the Pseudo-Spin-Ladder Compound  $\text{CaCu}_2\text{O}_3$**

Symposium to Celebrate the Retirement of Roger Cowley Organised by Oxford University

Oxford, England, UK 30. Jun - 01. Jul 2006

Invited Talk

*Lake, B.*

**Magnetism in Spin Ladders**

ISIS-IOP workshop Theoretical and Experimental Magnetism Meeting

Abingdon, UK 03. Aug - 04. Aug 2006

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**SF2.Quantum Phenomena**

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Poster

*Notbohm, S. Tennant, D.A.; Lake, B.; Canfield, P.C.; Fielden, J.; Kögerler, P.; Mikeska, H.-J.; Luckmann, C.; Telling, M.T.F***Temperature and Field Effects in the Gapped Quantum Magnet  $\text{Cu}(\text{NO}_3)_2 \cdot 2.5\text{D}_2\text{O}$** 

International Conference of Magnetism

Kyoto, Japan 20. Aug - 25. Aug 2006

Oral

*Tennant, A.; Lake, B.; Notbohm, S.***Exotic quantum phase in the spin-ladder compound  $\text{CaCu}_2\text{O}_3$** 

ICM06 International Conference on Magnetism

Kyoto, Japan 21. Aug - 25. Aug 2006

## SE - Solar Energy Research

### SE1 - Silicon photovoltaics

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#### SE1.Cells

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Oral

*Boehme, C.; Behrends, J.; Maydell, K. v.; Schmidt, M.; Lips, K.*

**The sensitive electrical detection of spin-coherence with pulsed electrically detected magnetic resonance**

2006 APS March Meeting

Baltimore, MD, USA 13. Mar - 17. Mar 2006

Invited Talk

*Boehme, C.; Lips, K.*

**Ultrasensitive defect spectroscopy with coherent, pulsed optically and electrically detected magnetic resonance techniques**

International Conference on Optical and Optoelectronic Properties of Materials and Applications (ICOOPMA)

Darwin, Australia 17. Jul - 21. Jul 2006

Poster

*Dogan, P.; Gorka, B.; Fenske, F.; Sieber, I.; Gall, S.*

**Low-Temperature Epitaxy of Silicon Using Electron Beam Evaporation**

EPVSEC 21

Dresden, Germany 04. Sep - 08. Sep 2006

Poster

*Ekanayake, G.; Quinn, T.; Reehal, H.S.; Rau, B.; Gall, S.*

**Large-grained polycrystalline silicon films on glass by epitaxial thickening of seed layers prepared by aluminium induced crystallisation**

21st European Photovoltaic Solar Energy Conference

Dresden, Germany 04. Sep - 08. Sep 2006

Oral

*Friedrich, F.; Nickel, N. H.*

**Ramanspektroskopie an Phononen im Zinkoxid**

Deutsche Physikerinnentagung 2006

Berlin 02. Nov - 05. Nov 2006

Oral

*Friedrich, F.; Sieber, I.; Nickel, N. H.*

**Raman investigations on the disorder activation of silent phonon modes in zinc oxide**

EMRS Spring Meeting 2006

Nizza 29. May - 02. Jun 2006

Poster

*Friedrich, F.; Sieber, I.; Nickel, N. H.*

**Influence of antimony doping on the properties of pulsed laser deposited zinc oxide thin-films**

4th International Workshop on ZnO and Related Materials

Giessen, Germany 03. Oct - 06. Oct 2006

Oral

*Friedrich, F.; Sieber, I.; Nickel, N.H.*

**A comparative study of the substrate influence on the structure of pulsed laser-deposited ZnO thin films**

DPG Frühjahrstagung 2006

Dresden 26. Mar - 31. Mar 2006

Invited Talk

*Fuhs, W.*

**Photovoltaic Energy Conversion - Challenges in Material Research and Device Development**

XXII Panhellenic Conference on Solid State Physics and Material Science

Patras, Greece 23. Sep - 01. Oct 2006

Poster

*Gall, S.; Berghold, J.; Conrad, E.; Dogan, P.; Fenske, F.; Gorka, B.; Lips, K.; Muske, M.; Petter, K.; Rau, B.; Schneider, J.; Sieber, I.*

**Large-grained polycrystalline silicon on glass for thin-film solar cells**

21st European Photovoltaic Solar Energy Conference

Dresden, Germany 04. Sep - 08. Sep 2006

Oral

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

**Hyperfine splitting in hydrogenated ZnO measured by electron spin resonance**

Spring-Meeting of the German Physical Society

Dresden 27. Mar - 31. Mar 2006

Poster

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

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

E-MRS spring meeting 2006

Nice, France 29. May - 02. Jun 2006

Poster

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

**ESR investigations on hydrogen-induced activation of Mn impurities in ZnO**

4th International ZnO-Workshop 2006

Gießen 03. Oct - 06. Oct 2006

Poster

*Gorka, B.; Dogan, P.; Fenske, F.; Sieber, I.; Gall, S.*

**Low-temperature epitaxy of silicon by electron beam evaporation**

E-MRS Spring Meeting 2006

Nice, France 29. May - 02. Jun 2006

Invited Talk

*Lips, K.*

**Crystalline Silicon Thin-Film Solar Cells on Glass Substrates**

Photovoltaics - the Third Generation and the Way to it

Berlin 04. May - 05. May 2006

Invited Talk

*Lips, K.*

**Defects in silicon devices investigated with pulsed electrically detected magnetic resonance**

48th Rocky Mountain Conference on Analytical Chemistry

Breckenridge, Colorado, USA 23. Jul - 27. Jul 2006

Invited Talk

*Lips, K.*

**Analytik für die Photovoltaik**

Industrietag HMI

Hahn-Meitner-Institut 27. Nov - 27. Nov 2006

Invited Talk

*Lips, K.*

**Electrical detection of coherent spin information with the Bruker Elexsys E580 spectrometer**

2nd EPR German User's Meeting

Rheinstetten 06. Oct - 06. Oct 2006

Invited Talk

*Lips, K., Boehme, C.*

**The electrical detection of coherent spin states in silicon**

Workshop

Sanremo, Italy 06. Mar - 08. Mar 2006

Poster

*Nickel, N.*

**Direct observation of the ionisation and neutralization of hydrogen shallow donors in zinc oxide**

4th International Workshop on ZnO and Related Materials

Gießen, Germany 03. Oct - 06. Oct 2006

Oral

*Nickel, N. H.*

**Properties of hydrogen in ZnO**

ZnO-Rundgespräch,

Bad Honnef 18. Jun - 20. Jun 2006

Invited Talk

*Nickel, N. H.*

**Hydrogen transport properties in zinc oxide**

E-MRS

Nice, France 28. May - 02. Jun 2006

Oral

*Nickel, N. H.*

**Optical quenching of hydrogen shallow donors in zinc oxide**

MRS Fall Meeting

Boston, USA 27. Nov - 01. Dec 2006

Invited Talk

*Nickel, N. H.*

**Role of hydrogen in silicon thin film materials**

International 21st Century COE Symposium on Atomistic Fabrication Technology

Osaka, Japan 19. Oct - 20. Oct 2006

Invited Talk

*Nickel, N. H.*

**Hydrogen transport in doped and undoped disordered silicon**

International Workshop on Computational Electronics

Vienna, Austria 23. May - 27. May 2006

Poster

*Rau, B.; Conrad, E.; Gall, S.*

**Influence of post-deposition treatments of absorber layers on poly-Si thin-film solar cells on glass grown by ECRCVD**

21st European Photovoltaic Solar Energy Conference

Dresden, Germany 04. Sep - 08. Sep 2006

Oral

*Rau, B.; Schneider, J.; Conrad, E.; Gall, S.*

**Influence of defect post-deposition treatments on poly-Si thin-film solar cells on glass grown by ECRCVD**

MRS Spring Meeting

San Francisco, CA, USA 17. Apr - 21. Apr 2006

Invited Talk

*Rech, B.*

**Silicon based solar cells**

Summer school of European Centre of Excellence in PV Materials and Devices

Tallinn, Estonia 21. Aug - 25. Aug 2006

Invited Talk

*Rech, B.; Gall, S.; Beyer, W.*

**Dünnschichttechnologie mit Silizium**

3. Jenaer Technologietag „Beschichtungen für die Optik und Optoelektronik“

Jena, Germany, 04.10.2006

Oral

*Repmann, T.; Wieder, S.; Klein, S.; Müller, J.; Kilper, T.; Stiebig, H.; Rech, B.*

**Production equipment for amorphous and microcrystalline silicon solar cell manufacturing**

21st European Photovoltaic Solar Energy Conference and Exhibition “EUPVSEC?”

Dresden, Germany 04. Sep - 08. Sep 2006

Oral

*Saleh, R.; Nickel, N. H.*

**Boron doped polycrystalline silicon produced by step-by-step XeCl excimer laser crystallization**

MRS Spring Meeting

San Francisco, USA 17. Apr - 21. Apr 2006

Oral

*Sarikov, A.; Schneider, J.; Muske, M.; Gall, S.*

**A model of preferential (100) crystal orientation of Si grains grown by aluminium-induced layer-exchange process**

E-MRS 2006 Spring Meeting

Nice, France 29. May - 02. Jun 2006

Oral

*Scheller, L.-P.; Weizman, M.; Nickel, N. H.; Yan, B.*

**Transport properties of laser-crystallized polycrystalline silicon-germanium thin films**

MRS Fall Meeting, Boston, USA, 27.11.-1.12.2006

Boston, USA 27. Nov - 01. Dec 2006

Oral

*Weizman, M.; Nickel, N. H.; Sieber, I.; Yan, B.*

**Substrate influence on the appearance of segregation in laser-crystallized polycrystalline SiGe thin films**

Materials Research Society

San Francisco, CA USA 17. Apr - 21. Apr 2006

Oral

*Weizman, M.; Nickel, N. H.; Sieber, I.; Yan, B.*

**Phase segregation in laser-crystallized polycrystalline SiGe thin films**

DPG-Frühjahrstagung

Dresden 26. Mar - 31. Mar 2006

Oral

*Weizman, M.; Terukova, E.; Nickel, N. H.; Yan, B.*

**Investigation of dangling bond defects in laser-crystallized polycrystalline SiGe thin films**

2006 MRS Fall Meeting

Boston, MA, USA 27. Nov - 01. Dec 2006

Oral

*Yang F., Roodenko K., Hinrichs K., Rappich J.*

**In-situ PL and PV investigation during etch-back of anodic oxides on Si(111).**

PCWES 2006

Saarbrücken 19. Jun - 21. Jun 2006



**SE1.Hetero**

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Oral

*Angermann, H., Rappich, J.***Surface states and recombination loss on wet-chemically passivated Si studied by Surface Photovoltage (SPV) and Photoluminescence (PL)**Eight International Symposium on Ultra Clean Processing of Semiconductor Surfaces UCPSS 2006  
Antwerpen | Belgium 17. Sep - 20. Sep 2006

Poster

*Angermann, H., Sieber, I., Hübener, K., Hauschild, J.***Passivation of defects on atomically flat and structured silicon substrates**

Tag der Chemie

TU Berlin 28. Jun - 28. Jun 2006

Poster

*Angermann, H.; Rappich, J.; Maydell, K. v.; Conrad, E.; Sieber, I.; Schaffarzik, D.; and Schmidt, M.***Wet-chemical passivation of interface defects in a-Si:H/c-Si heterojunction solar cells with randomly distributed pyramids**21st European Photovoltaic Solar Energy Conference and Exhibition -  
Dresden 04. Sep - 08. Sep 2006

Invited Talk

*Angermann, H.; Rappich, J.; Sieber, I.; Hübener, K.; Polte, J.; Hauschild, J.***Wet-chemical passivation of atomically flat and structured silicon substrates**5th International Conference Solid State Surfaces and Interfaces SSSI 2006.  
Bratislava, Slovakia 19. Nov - 24. Nov 2006

Oral

*Behrends, J.; Böhme, C.; Maydell, K. v.; Schmidt, M.; Lips, K.***Investigation of spin-dependent transport in a-Si:H/c-Si solar cells with pulsed electrically detected magnetic resonance**DPG Frühjahrstagung des AKF und Condensed Matter Division der EPS  
Dresden 27. Mar - 31. Mar 2006

Poster

*Conrad, E.; Maydell K. v.; Angermann, H.; Schubert, C.; Schmidt, M.***Optimization of interface properties in a-Si:H/c-Si heterojunction solar cells**4th World Conference on Photovoltaic Energy Conversion  
Hawaii, USA 08. May - 12. May 2006

Oral

*Korte, L.; Laades, A.; Schmidt, M.***Electronic properties of a-Si:H/c-Si heterojunctions**

MRS 2006 Spring Meeting

San Francisco, CA, USA 17. Apr - 21. Apr 2006

Oral

*Korte, L.; Maydell, K. v.; Conrad, E.; Angermann, H.; Schubert, C.; Stangl, R.; Schmidt, M.***Development and optimization of a-Si:H/c-Si heterojunction solar cells completely processed at low temperatures**21st European Photovoltaic Solar Energy Conference  
Dresden 04. Sep - 09. Sep 2006

Oral

*Lips, K.; Boehme, C.; Behrends, J.; Stangl, R.; v. Maydell, K.; Schmidt, M.***Electrical detection of coherent electron spin states at the a-Si/c-Si interface**18th Workshop on Quantum Solar Energy Conversion - QUANTSOL 2006  
Rauris, Austria 19. Mar - 24. Mar 2006

## Invited Talk

*Maydell von, K.; Conrad, E.; Laades, A.; Stangl, R.; Schmidt, M.*

**a-Si:H/c-Si Heterojunction - Solar Cells**

Silicon Forest Workshop

Falkau Schwarzwald 19. Feb - 22. Feb 2006

## Poster

*Rappich J., Fahoume M., Sieber I.*

**Influence of electrochemically deposited ZnO(OH) layers on the non radiative recombination and band bending of p-Si surfaces**

E-MRS 2006 - European Materials Research Society

Nice, France 29. May - 02. Jun 2006

## Oral

*Rappich J., Guell A.G., Merson A., Roodenko K., Sieber I., Schulze S., Sanz F., Gensch M., Hinrichs K., Dittrich Th.*

**Engineering and passivation of Si surfaces by electrochemical organic layer deposition**

E-MRS 2006 - European Materials Research Society

Nice, France 29. May - 02. Jun 2006

## Oral

*Roodenko K., Gensch M., Rappich J., Hunger R., Esser N., Hinrichs K.*

**Infrared ellipsometric studies of electrochemically grafted thin organic layers**

ESIS 2006 - The new European Seminar on Infrared Spectroscopy

Lyon Villeurbanne, France 04. Apr - 06. Apr 2006

## Oral

*Roodenko K., Rappich J., Hunger R., Gensch M., Guell A.G., Dittrich Th., Merson A., Shapira Y., Esser N., Hinrichs K.*

**Application of infrared spectroscopic ellipsometry in studies of electrochemically grafted thin organic monolayers**

DPG Tagung

Dresden 27. Mar - 31. Mar 2006

## Invited Talk

*Schmidt, M.; Angermann, H.; Conrad, E.; Korte, E.; Laades, A.; v. Maydell, K.; Schubert, Ch.; Stangl, R*

**Physical and Technological Aspects of a-Si:H/c-Si Hetero-Junction Solar Cells**

2006 IEEE 4th World Conference on Photovoltaic Energy Conversion

Waikoloa, Hawaii (USA) 08. May - 12. May 2006

## Invited Talk

*Schmidt, M.; Korte, L.; Laades, A.; Stangl, R.; Schubert, C.; Angermann, H.; Conrad, E.; Maydell, K. v.*

**Physical aspects of a-Si:H/c-Si hetero-junction solar cells**

EMRS-2006

Nizza/Frankreich 29. May - 02. Jun 2006

## Oral

*Schmidt, M.; Korte, L.; Laades, A.; Schöpke, A*

**Electronic states in extremely thin a-Si:H layers as part of a-Si:H/c-Si heterostructures**

QUANTSOL-2006

Rauris/Austria 19. Mar - 25. Mar 2006

## Poster

*Stangl, R.; Angermann, H.; Conrad, E.; Korte, L.; Laades, A.; Maydell, K.v.; Schaffarzik, D.; Schmidt, M.*

**Characterisation of amorphous/crystalline silicon solar cells**

EPVSEC-21,

Dresden, Germany 04. Sep - 08. Sep 2006

Poster

*Stangl, R.; Kriegel, M.; Schmidt, M.*

**AFORS-HET, Version 2.2, a numerical computer program for simulation of heterojunction solar cells and measurements**

WCPEC-4,

Waikoloa, Hawaii, USA 07. May - 12. May 2006

Oral

*Weiser, G.; Kasitsyna-Baranovski, S.; Stangl, R.*

**Band-edge luminescence of crystalline silicon heterojunction solar cells**

ICOOPMA 2006, International Conference on Optical and Optoelectronic Properties of Materials and Applications

Darwin, Australia 15. Jul - 22. Jul 2006

## SE1.Others

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Poster

*Doka, S.; Hofstetter, J.; Lehmann, S.; Rusu, M.; Meeder, A.; Arushanov, E.; Fabre, N.; Fiechter, S.; Lips, K.; Schedel-Niedrig, Th.; Lux-Steiner, M. Ch.*

**Ge Implantation in CuGaSe<sub>2</sub> studied by Electron Spin Resonance**

E-MRS

Nice, France 29. May - 02. Jun 2006

## SE2 - Heterogeneous material systems

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### SE1.Hetero

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Oral

*Rappich J., Guell A.G., Merson A., Roodenko K., Sieber I., Schulze S., Sanz F., Gensch M., Hinrichs K., Dittrich Th.*

**Engineering and passivation of Si surfaces by electrochemical organic layer deposition**

E-MRS 2006 - European Materials Research Society

Nice, France 29. May - 02. Jun 2006

Oral

*Roodenko K., Rappich J., Hunger R., Gensch M., Guell A.G., Dittrich Th., Merson A., Shapira Y., Esser N., Hinrichs K.*

**Application of infrared spectroscopic ellipsometry in studies of electrochemically grafted thin organic monolayers**

DPG Tagung

Dresden 27. Mar - 31. Mar 2006

### SE1.Others

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Poster

*Doka, S.; Hofstetter, J.; Lehmann, S.; Rusu, M.; Meeder, A.; Arushanov, E.; Fabre, N.; Fiechter, S.; Lips, K.; Schedel-Niedrig, Th.; Lux-Steiner, M. Ch.*

**Ge Implantation in CuGaSe<sub>2</sub> studied by Electron Spin Resonance**

E-MRS

Nice, France 29. May - 02. Jun 2006

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**SE2.Analytics**

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Oral

*Bär, M.; Klaer, J.; Ennaoui, A.; Lehmann, S.; Grimm, A.; Lauermann, I.; Loreck, Ch.; Sokoll, St.; Schock, H.-W.; Fischer, Ch.-H.; Lux-Steiner, M.C.; Weinhardt, L.; Fuchs, O.; Umbach, E.; Jung, C.; Heske, C.*

**FORMATION OF THE BUFFER/CuInS<sub>2</sub> INTERFACE**

2006 IEEE 4th World Conference on Photovoltaic Energy Conversion  
Waikoloa, Hawaii, USA 07. May - 12. May 2006

Poster

*Caballero, A...R.*

**CGS-THIN FILMS SOLAR CELLS ON TRANSPARENT BACK CONTACT**

2006 IEEE 4th World Conference on Photovoltaic Energy Conversion, Waikoloa, Hawaii, May 2006  
Waikoloa, Hawaii, USA 08. May - 12. May 2006

Poster

*Caballero, A...R.*

**Comparison of bilayer and three-stage coevaporation process for CuGaSe<sub>2</sub> thin films**

E-MRS Spring Meeting 2006, Nice, France, 29 May-2 June 2006  
Nice, France 29. May - 02. Jun 2006

Oral

*Ennaoui, A.; Bär, M.; Rusu, M.; Klenk, R.; Klaer, J.; Kropp, T.; Sáez-Araoz, R.; Schock, H.-W.; Lux-Steiner, M.C.*

**Highly Efficient CuInS<sub>2</sub>-based solar cell devices with an optimized Cd-free window structure**

21st EU Solar Energy Photovoltaic Conference and Exhibition  
Dresden, Germany 04. Sep - 08. Sep 2006

Poster

*Lauermann I, Mönig H, Camus C, Grimm A, Pistor P, Sokoll S, Lehmann S, Puttnins S, Schock H W, Kaufmann C, Körber P, Münchenberg T, Kropp T, Saez R, Ennaoui A, Lux-Steiner M Ch, Fischer Ch-H, Jung C, Bär M*

**XES of chalcopyrite solar cell components in the CISSY end-station In-situ measurements and depth profiling of layered films**

Bessy Nutzertreffen 2006  
Berlin 07. Dec - 08. Dec 2006

Oral

*Lauermann, I.; Loreck, Ch.; Visbeck, S.; Niesen, T. P.; Mönig, H; Lux-Steiner, M. Ch.; Fischer, Ch.*

**Cu-ACCUMULATION AT THE INTERFACE SPUTTER-(ZnMg)O/Cu(InGa)(S,Se)<sub>2</sub> - A KEY TO UNDERSTANDING THE NEED FOR BUFFER LAYERS?**

E-MRS Spring Meeting  
Nizza 29. May - 02. Jun 2006

Oral

*Loreck, Ch.; Lauermann, I.; Grimm, A.; Klenk, R.; Bär, M.; Lehmann, S.; Sokoll, S.; Lux-Steiner, M. Ch.; Erfurth, F.; Weinhardt, L.; Heske, C.; Visbeck, S.; Niesen, T. P.; Jung, Ch.; Gudat, W.; Fischer, Ch.-H.*

**INTERFACE CHEMISTRY BETWEEN THE SPUTTER-(Zn,Mg)O BUFFER AND THE Cu(In,Ga)(S,Se)<sub>2</sub> ABSORBER**

21st European Photovoltaic Solar energy Conference and Exhibition  
Dresden 04. Sep - 08. Sep 2006

Oral

*S. Sadewasser, G. Villanueva and J.A. Plaza*

**Diseño de voladizos para trabajar en modos altos de oscilación en microscopios de fuerza atómica**

V. Congreso Español de Fuerzas y Túnel 2006  
Murcia, Spain 20. Sep - 22. Sep 2006

Invited Talk

*Sadewasser, S.*

**Surface potential of chalcopyrite films measured by KPFM**

15th International Conference on Ternary and Multinary Compounds

Kyoto, Japan 06. Mar - 10. Mar 2006

Oral

*Sadewasser, S., G. Villanueva, J.A. Plaza*

**Cantilevers for atomic force microscopy imaging at higher modes of oscillation**

International Conference on Nanoscience and Technology ICN&T 2006

Basel, Switzerland 30. Jul - 04. Aug 2006

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## SE2.Chemistry

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Oral

*Allsop, N.; Camus, C.; Gledhill, S.; Mertesacker, B.; Drescher, L.; Niesen, T.P.; Lux-Steiner, M.C.; Fischer, C.H.;*

**Cd-free indium sulfide buffer layers for chalcopyrite solar cells by the scalable in-line Spray-ILGAR process**

21st European Photovoltaic Solar Energy Conference

Dresden 04. Sep - 08. Sep 2006

Invited Talk

*Fischer, C.-H.*

**ILGAR (Ion Layer Gas Reaction) - a versatile low-cost method for the deposition of high quality thin semiconductor and insulator layers**

The 49th SVC ANNUAL TECHNICAL CONFERENCE

Washington DC 22. Apr - 27. Apr 2006

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## SE2.Concepts

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Poster

*Fostiropoulos, K.; Mete, T.; Steitz, R.; Lauer mann, I.; Fischer, C.-H.; Lux-Steiner, M. C.*

**x-ray analytical methods for ultra-thin organic films**

EUPVSEC 2006

Dresden 04. Sep - 08. Sep 2006

Poster

*Huebener, K.; Scheloske, M. ; Hauschild, J.; Harneit, W.; Zehl, G.; Fiechter, S.*

**AFM investigation of the formation of one-dimensional structures of C60 shuttlecocks on HOPG**

20th IWEPM: Molecular Nanostructures

Kirchberg, Austria 04. Mar - 11. Mar 2006

Oral

*Mainz, R.; Klenk, R.*

**Ga incorporation into CuInS<sub>2</sub> solar cell absorbers in fast sulfurization processes**

DPG Tagung

Dresden 27. Mar - 31. Mar 2006

Poster

*Mainz, R.; Klenk, R.; Lux-Steiner, M. Ch.*

**Sulfurisation of gallium-containing metallic precursors analysed in-situ**

E-MRS, IUMRS ICEM 2006, Spring Meeting

Nizza, 29. May - 02. Jun 2006

Poster

*Naydenov, B.; Spudat, Ch.; Scheloske, M.; Suess, H.I.; Hulliger, J.; Harneit, W.*

**N@C60 and N@C70 oriented in a single-crystalline matrix**

20th IWEPNM: Molecular Nanostructures

Kirchberg, Austria 04. Mar - 11. Mar 2006

Oral

*Rusu, M.; Strotmann, J.; Vogel, M.; Lux-Steiner, M.Ch.; Fostiropoulos, K.*

**Efficiency-limiting factors in copper-phthalocyanine:C60 bulk heterojunction organic solar cells**

21st EU Solar Energy Photovoltaic Conference and Exhibition

Dresden, Germany 04. Sep - 08. Sep 2006

Oral

*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**

E-MRS 2006

Nice, France 29. May - 02. Jun 2006

Poster

*Schaefer, S.; Huebener, K.; Harneit, W.; Fostiropoulos, K.; Boehme, C.; Lips, K.*

**Pulsed electrically detected magnetic resonance on C60 thin films**

20th IWEPNM: Molecular Nanostructures

Kirchberg, Austria 04. Mar - 11. Mar 2006

Poster

*Schoenfeld, R. S.; Harneit, W.; Paech, M.*

**Pulsed and cw EPR studies on hydrogen atoms encaged in octasilsesquioxane molecules**

20th IWEPNM: Molecular Nanostructures

Kirchberg, Austria 04. Mar - 11. Mar 2006

## SE2.Contacts

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Poster

*Grimm, A.; Klenk, R.; Lux-Steiner, M.-Ch.; Visbeck, S.*

**Bulk and interface properties of (Zn,Mg)O buffer layers sputtered in hydrogen-containing atmosphere**

E-MRS - IUMRS - ICEM 06 Acropolis Congress Center NICE (France) :: May 29 - June 2, 2006

Nice, France 29. May - 02. Jun 2006

Poster

*Theodoropoulou, S.; Papadimitriou, S.; Doka, S.; Schedel-Niedrig, Th.; Lux-Steiner, M. Ch.*

**Structural properties of Ge doped CuGaSe2 films studied by Raman and Photoluminescence Spectroscopy**

E-MRS Spring Meeting 2006

Nice, France 29. May - 02. Jun 2006

## SE2.Integration

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Oral

*Kaufmann, C.A.; Neisser, A.; Unold, Th.; Klenk, R.; Schock, H.W.; Kessler, F.; Kniese, R.; Herrmann, D.;*

*Powalla, M.; Kroon, M.; Oomen, G.; Slootweg, D.*

**Testing of flexible Cu(In,Ga)Se2 based thin film solar cells in view of space applications**

21st European Photovoltaic Solar Energy Conference and Exhibition

Dresden, Germany 04. Sep - 08. Sep 2006

Oral

*Klaer, J.; Klenk, R.; Schock, H.W.; Schmid, D.; Eisele, W.; Hinze, J.; Luck, I.; v. Klopmann, C.; Meeder, A.; Rühle, U.; Meyer, N.*

**Progress in mini-modules from a CuInS<sub>2</sub> baseline process**

21st European Photovoltaic Solar Energy Conference and Exhibition

Dresden, Germany 04. Sep - 08. Sep 2006

Invited Talk

*Klenk, R.; Schock, H.-W.; Ellmer, K.*

**Herstellung von Halbleiterschichten aus multinären Chalkopyritverbindungen**

Workshop: Verfahren für die Großflächenbeschichtung mit Halbleitermaterialien

Wörlitz/Sachsen Anhalt 17. Oct - 18. Oct 2006

Poster

*Köble, Ch.; Klaer, J.; Klenk, R.; Lux-Steiner, M.Ch.*

**Stability of CuInS<sub>2</sub> Module Test Structures Under Reverse Bias Stress**

21st European Photovoltaic Solar Energy Conference and Exhibition

Dresden, Germany 04. Sep - 08. Sep 2006

Oral

*Schock, H.W.; Klenk, R.; Preu, R.; Springer, J.; Schmidt, J.; Beyer, W.*

**Photovoltaik - Forschung und Verfahrensentwicklung im Zeichen der Nachhaltigkeit**

Forschungsverbund Sonnenenergie Jahrestagung 2006

Berlin, Germany 21. Sep - 22. Sep 2006

Oral

*Unold, Th.; Enzenhofer, T.; Kaufmann, C.A.; Klenk, R.; Neisser, A.; Sakurai, K.; Schock, H.W.*

**Analysis of defects in coevaporated high-efficiency Cu(In,Ga)Se<sub>2</sub> solar cells**

4th World Conf. Photovoltaic Energy Conversion

Waikoloa, Hawaii, USA 07. May - 12. May 2006

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## SE2.Semico

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Oral

*Augustin, S.; Siebentritt, S.; Papathanasiou, N.*

**Ellipsometric Photoluminescence on CuGaSe<sub>2</sub> - Defects**

DPG Frühjahrstagung

Dresden 27. Mar - 31. Mar 2006

Oral

*Eisenbarth, T., Siebentritt, S., Albert, J., Schubert-Bischoff, P., Sieber I., Lux-Steiner, M.*

**Influence of grain boundaries on electrical and structural properties of chalcopyrites**

DPG-Tagung Dresden 2006

Dresden 27. Mar - 31. Mar 2006

Oral

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

**Photovoltaic applications of Ga-rich CuGa<sub>x</sub>Se<sub>y</sub> thin-film absorbers**

E-MRS Spring Meeting 2006

Nice, France 29. May - 02. Jun 2006

Poster

*Kaigawa, R.; Ohyama, A.; Wada, T.; Klenk, R.*

**Electric properties of Cu-poor and Cu-rich Cu(In,Ga)S<sub>2</sub> films after O<sub>2</sub>-annealing**

Int. Conf. Ternary And Multinary Compounds. ICTMC 15

Kyoto 06. Mar - 10. Mar 2006

Poster

*Kaigawa, R.; Ohyama, A.; Wada, T.; Klenk, R.*

**Electrical properties of homogeneous Cu(In,Ga)S<sub>2</sub> films with varied gallium content**

EMRS spring meeting, Nice, France

Nice, France 29. May - 02. Jun 2006

Poster

*Lehmann, S.; Fuertes-Marron, D.; Bär, M.; Lauermann, I.; Fischer, Ch.-H.; Schedel-Niedrig, Th.; Lux-Steiner, M. Ch.*

**CuGaSe<sub>2</sub>-related defect compound thin films grown by chemical close-spaced vapour transport - a structural and compositional study**

E-MRS Spring Meeting 2006

Nice, France 29. May - 02. Jun 2006

Oral

*Schedel-Niedrig, Th.*

**Material properties and application issues of CuGaSe<sub>2</sub> thin films grown by novel chemical transport technique**

European Society for Quantum Solar Energy Conversion, 18th Workshop 2006

Rauris, Austria 20. Mar - 24. Mar 2006

Oral

*Siebentritt, S.*

**A S3 grain boundary in an epitaxial chalcopyrite film**

Spring Meeting of the European Materials Research Society

Nizza 29. May - 02. Jun 2006

Invited Talk

*Siebentritt, S.*

**Defects in Semiconductors**

Gordon-Konferenz

New London, New Hampshire, U.S.A. 02. Jul - 07. Jul 2006

Oral

*Wimmer, M.; Siebentritt, S.; Leendertz, C.; Eisenbarth, T.*

**Influence of grain boundaries on electric transport in chalcopyrites**

DPG Frühjahrstagung 2006

Dresden 26. Mar - 31. Mar 2006

### **SE3.Baseline**

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Oral

*Kaufmann, C.A.; Neisser, A.; Unold, T.; Klenk, R.; Schock, H.-W.; Kessler, F.; Kniese, R.; Herrmann, D.; Powalla, M.; Kroon, M.; Oomen, G.; Sloatweg, D.*

**Testing of flexible Cu(In,Ga)Se<sub>2</sub> based, thin film solar cells in view of space applications**

21st European Photovoltaic Solar Energy Conference

Dresden, Germany 04. Sep - 08. Sep 2006

Poster

*Kaufmann, C.A.; Unold, T.; Abou-Ras, D.; Bundesmann, J.; Neisser, A.; Klenk, R.; Scheer, R.; Sakurai, K.; Schock, H.-W.*

**INVESTIGATION OF COEVAPORATED Cu(In,Ga)Se<sub>2</sub> THIN FILMS IN HIGHLY EFFICIENT SOLAR CELL DEVICES**

E-MRS Spring Meeting 2006

Nice, France 29. May - 02. Jun 2006



**SE3 - Technology**

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**SE2.Analytics**

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Oral

*Bär, M.; Klaer, J.; Ennaoui, A.; Lehmann, S.; Grimm, A.; Lauermann, I.; Loreck, Ch.; Sokoll, St.; Schock, H.-W.; Fischer, Ch.-H.; Lux-Steiner, M.C.; Weinhardt, L.; Fuchs, O.; Umbach, E.; Jung, C.; Heske, C.*

**FORMATION OF THE BUFFER/CuInS<sub>2</sub> INTERFACE**

2006 IEEE 4th World Conference on Photovoltaic Energy Conversion

Waikoloa, Hawaii, USA 07. May - 12. May 2006

Poster

*Caballero, A...R.***CGS-THIN FILMS SOLAR CELLS ON TRANSPARENT BACK CONTACT**

2006 IEEE 4th World Conference on Photovoltaic Energy Conversion, Waikoloa, Hawaii, May 2006

Waikoloa, Hawaii, USA 08. May - 12. May 2006

Poster

*Caballero, A...R.***Comparison of bilayer and three-stage coevaporation process for CuGaSe<sub>2</sub> thin films**

E-MRS Spring Meeting 2006, Nice, France, 29 May-2 June 2006

Nice, France 29. May - 02. Jun 2006

Poster

*Lauermann I, Mönig H, Camus C, Grimm A, Pistor P, Sokoll S, Lehmann S, Puttnins S, Schock H W, Kaufmann C, Körber P, Münchenberg T, Kropp T, Saez R, Ennaoui A, Lux-Steiner M Ch, Fischer Ch-H, Jung C, Bär M*

**XES of chalcopyrite solar cell components in the CISSY end-station In-situ measurements and depth profiling of layered films**

Bessy Nutzertreffen 2006

Berlin 07. Dec - 08. Dec 2006

**SE2.Integration**

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Oral

*Klaer, J.; Klenk, R.; Schock, H.W.; Schmid, D.; Eisele, W.; Hinze, J.; Luck, I.; v. Klopmann, C.; Meeder, A.; Rühle, U.; Meyer, N.*

**Progress in mini-modules from a CuInS<sub>2</sub> baseline process**

21st European Photovoltaic Solar Energy Conference and Exhibition

Dresden, Germany 04. Sep - 08. Sep 2006

Invited Talk

*Klenk, R.; Schock, H.-W.; Ellmer, K.***Herstellung von Halbleiterschichten aus multinären Chalkopyritverbindungen**

Workshop: Verfahren für die Großflächenbeschichtung mit Halbleitermaterialien

Wörlitz/Sachsen Anhalt 17. Oct - 18. Oct 2006

Poster

*Köble, Ch.; Klaer, J.; Klenk, R.; Lux-Steiner, M.Ch.***Stability of CuInS<sub>2</sub> Module Test Structures Under Reverse Bias Stress**

21st European Photovoltaic Solar Energy Conference and Exhibition

Dresden, Germany 04. Sep - 08. Sep 2006

Oral

*Schock, H.W.; Klenk, R.; Preu, R.; Springer, J.; Schmidt, J.; Beyer, W.***Photovoltaik - Forschung und Verfahrensentwicklung im Zeichen der Nachhaltigkeit**

Forschungsverbund Sonnenenergie Jahrestagung 2006

Berlin, Germany 21. Sep - 22. Sep 2006

Oral

*Unold, Th.; Enzenhofer, T.; Kaufmann, C.A.; Klenk, R.; Neisser, A.; Sakurai, K.; Schock, H.W.*

**Analysis of defects in coevaporated high-efficiency Cu(In,Ga)Se<sub>2</sub> solar cells**

4th World Conf. Photovoltaic Energy Conversion

Waikoloa, Hawaii, USA 07. May - 12. May 2006

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**SE3.Baseline**

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Oral

*Kaufmann, C.A.; Neisser, A.; Unold, T.; Klenk, R.; Schock, H.-W.; Kessler, F.; Kniese, R.; Herrmann, D.; Powalla, M.; Kroon, M.; Oomen, G.; Slootweg, D.*

**Testing of flexible Cu(In,Ga)Se<sub>2</sub> based, thin film solar cells in view of space applications**

21st European Photovoltaic Solar Energy Conference

Dresden, Germany 04. Sep - 08. Sep 2006

Poster

*Kaufmann, C.A.; Unold, T.; Abou-Ras, D.; Bundesmann, J.; Neisser, A.; Klenk, R.; Scheer, R.; Sakurai, K.; Schock, H.-W.*

**INVESTIGATION OF COEVAPORATED Cu(In,Ga)Se<sub>2</sub> THIN FILMS IN HIGHLY EFFICIENT SOLAR CELL DEVICES**

E-MRS Spring Meeting 2006

Nice, France 29. May - 02. Jun 2006

Oral

*Klaer J.; Klenk R.; Abou-Ras D.; Scheer R.; Schock H.W.; Schmid D.; Eisele W.; Hinze J.; Luck I.; Klopmann C.v.; Meeder A.; Rühle U.; Meyer N.*

**Progress in Mini-Modules from a CuInS<sub>2</sub> baseline process**

21st European Photovoltaic Solar Energy Conference

Dresden 04. Sep - 08. Sep 2006

Invited Talk

*Schock, H.-W.*

**Materialwissenschaftliche Randbedingungen für hocheffiziente Chalkopyritsolarzellen**

ZSW - Kolloquium

02. Feb - 02. Feb 2006

Invited Talk

*Schock, H.-W.*

**Dünnschichtsolarzellen aus Chalkopyrithalbleitern - strukturelle Aspekte und neue Entwicklungen**

Kolloquium an der Universität Leipzig

Leipzig 06. Jul - 06. Jul 2006

Invited Talk

*Schock, H.-W.*

**Chalkogenid Verbindungshalbleiter für die Photovoltaik, Entwicklungsstand und materialwissenschaftliche Gesichtspunkte**

Kolloquium an der Universität Salzburg

Salzburg 12. Oct - 12. Oct 2006

Invited Talk

*Schock, H.-W.*

**Dünnschicht-Photovoltaik**

Photovoltaik Modultechnik

Köln 29. Nov - 30. Nov 2006

Invited Talk

*Schock, H.-W.*

**Photovoltaik - Forschung und Verfahrensentwicklung im Zeichen der Nachhaltigkeit**

FVS-Jahrestagung

Berlin 27. Feb - 27. Feb 2006

### SE3.Control

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Oral

*Abou-Ras, D.; Nichterwitz, M.; Kaufmann, C.A.; Bundesmann, J.; Schock, H.W.;*

**First results from electron-backscatter diffraction measurements on cross-sections of Cu(In,Ga)Se<sub>2</sub> thin-film solar absorbers**

Oxford Instruments HKL User Meeting

Hindsgavl Castle, Denmark 04. Dec - 06. Dec 2006

### SE3.Others

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Invited Talk

*Schorr, S.*

**Structural aspects of adamantine like multinary chalcogenides**

Spring Meeting of the EMRS (European Materials Research Society)

Nizza 29. May - 02. Jun 2006

## SE4 - Dynamics of interfacial reactions

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### SE4.Cells

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Oral

*Hannappel, T.*

**Interfacial aspects of III-V solar cells**

Mid-term Evaluation SE

HMI 03. Apr - 03. Apr 2006

Invited Talk

*Hannappel, T.; McMahon, W.E.; Batyrev, Bork, T.; Olson, J.M.; Zhang, S.B.*

**Stress relieving 5-7-5? line defects on MOCVD-prepared As/Si (100): An STM, RDS, and theoretical study**

13th International Conference on Metal Organic Vapor Phase Epitaxy

Miyazaki, Japan 22. May - 26. May 2006

Oral

*McMahon, W.E.; Batyrev, I.G.; Hannappel, T.; Olson, J.M.; Zhang, S.B.*

**Stress relieving 5-7-5 line defects on As/Si (100): An STM and theoretical study**

33rd Conference on the Physics and chemistry of Semiconductor Interfaces (PCSI)

Cocoa Beach, FL, USA 15. Jan - 19. Jan 2006

Oral

*Schimper, H.-J.; Seidel, U.; Bloeck, U.; Schwarzburg, K.; McMahon, W.E., Batyrev, I.G.; Olson, J.M.; Zhang, S.B.; Hannappel, T.*

**Basic considerations, growth and interfacial issues around III-V high-efficiency solar cells**

18 th Workshop on Quantum Solar Energy Conversion

Rauris, Österreich 19. Mar - 24. Mar 2006

Oral

*Seidel, U.; Sagol, E.; Bloeck, U.; Schwarzburg, K.; Hannappel, T.*

**Grenzflächenuntersuchungen an einer InGaAs/GaAsSb-Tunnelodiode für eine III-V-Tandemsolarzelle auf InP(100)**

21. DGKK - Arbeitskreistreffen Epitaxie von III-V- Halbleitern

Ulm 07. Dec - 08. Dec 2006

Oral

*Seidel, U.; Schimper, H.-J.; Bloeck, U.; Schwarzburg, K.; Willig, F.; Hannappel, T.*

**InP-based tandem solar cell with low band gaps**

Frühjahrstagung der DPG

Dresden 27. Mar - 31. Mar 2006

Poster

*Seidel, U.; Schimper, H.-J.; Bloeck, U.; Schwarzburg, K.; Willig, F.; Hannappel, T.*

**III-V materials for multi-junction solar cells on the lattice constant of InP**

Frühjahrstagung der DPG

Dresden 27. Mar - 31. Mar 2006

Oral

*Seidel, U.; Schimper, H.-J.; Kollonitsch, Z.; Bloeck, U.; Sagol, E.; Schwarzburg, K.; Willig, F.; Hannappel, T.*

**InP-based tandem solar cell with low band gaps**

13th International Conference on Metal Organic Vapor Phase Epitaxy

Miyazaki, Japan 22. May - 26. May 2006

Oral

*Seidel, U.; Schimper, H.-J.; Sagol, E.; Bloeck, U.; Schwarzburg, K.; Hannappel, T.*

**InGaAs/GaAsSb tunnel junction employed in a low band gap tandem solar cell**

21st European Photovoltaic Solar Energy Conference

Dresden 04. Sep - 08. Sep 2006

## SE4.Dynamics

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Oral

*Eichberger, R.; Gundlach, L.; Ernstorfer, R.; Felber, S.; Willig, F.*

**Electron transfer dynamics of perylene derivatives attached to TiO<sub>2</sub> measured with femtosecond transient absorption and two photon photoelectron emission**

Fourth international meeting on Photodynamics

Havana, Cuba 06. Feb - 10. Feb 2006

Oral

*Neubauer, A.; Gundlach, L.; Socaciu-Siebert, L.; Szarko, J.; Ernstorfer, R.; Felber, S.; Morbach, G.; Eichberger, R.; Willig, F.*

**Structural influence of the dye on the dynamics of ultrafast heterogeneous electron transfer in a dye/semiconductor system**

AMOP-Frühjahrstagung der Deutschen Physikalischen Gesellschaft

Frankfurt 13. Mar - 17. Mar 2006

Oral

*Neubauer, A.; Gundlach, L.; Szarko, J.; Socaciu-Siebert, L.; Eichberger, R.; Morbach, G.; Willig, F.*

**Comparison of two different mechanisms for light-induced electron injection from dye-molecules into semiconductors**

Deutsche Physikerinnentagung

Berlin 02. Nov - 05. Nov 2006

Oral

*Schwarzburg, K.; Ellmer, K.; Kunst, M.; Tornow, J.*

**Evaluation of ZnO nanorods as a substrate for composite solar cells**

QUANTSOL 2006 Winter workshop

Rauris, Salzburg, Österreich 19. Mar - 25. Mar 2006

Oral

*Socaciu-Siebert, L.; Neubauer, A.; Gundlach, L.; Szarko, J.; Ernstorfer, R.; Cherkouk, Ch.; Morbach, G.; Eichberger, R.; Willig, F.*

**Dynamics of electron transfer through a chromophore/semiconductor interface**

AMOP-Frühjahrstagung der Deutschen Physikalischen Gesellschaft

Frankfurt 13. Mar - 17. Mar 2006

**SE4.Others**

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Invited Talk

*Janata, E.***Instrumentation for pulse radiolysis and laser flash photolysis**

Workshop on Radiation and Photochemistry

Homi Bhabha Center for Science Education, D.B.Mumbai, Indien 02. Jan - 03. Jan 2006

Invited Talk

*Janata, E.***Pulse radiolysis facility ELBENA. UV absorption measurements**

Pune University Workshop on Radiation and Photochemistry (PUWORP 2006)

Pune, Indien 10. Jan - 11. Jan 2006

Invited Talk

*Janata, E.***UV absorption measurements at the pulse radiolysis facility ELBENA**

TSRP 2006 Trombay Symposium on Radiation and Photochemistry, Bhabha Atomic Research Centre

Mumbai, Indien 04. Jan - 09. Jan 2006

Invited Talk

*Janata, E.***UV absorption measurements at the pulse radiolysis facility ELBENA**

11th TIHANY SYMPOSIUM ON RADIATION CHEMISTRY

Eger, Ungarn 26. Aug - 31. Aug 2006

Poster

*Janata, E.***Studying chemical processes by pulse radiolysis**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006 (SNI2006)

Hamburg 04. Oct - 06. Oct 2006

Oral

*Tornow, J.; Schwarzburg, K.; Kunst, M.; Ellmer, K.; Bloeck, U.; Michalczyk, U.; Willig, F.; Foell, H.***ZnO-nanorods as new type of electrode for dye-sensitized solar cells**

E-MRS Spring Meeting 2006

Nizza, Frankreich 29. May - 02. Jun 2006

Poster

*Tornow, Julian; Schwarzburg, K.***Electrical Response of Wet Chemically Grown ZnO Nanorods for Photovoltaic Application**

MRS Fall Meeting 2006

Boston, USA 27. Nov - 01. Dec 2006

**SE5 - Solar energy**

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**SE2.Concepts**

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Poster

*Huebener, K.; Scheloske, M.; Hauschild, J.; Harneit, W.; Zehl, G.; Fiechter, S.***AFM investigation of the formation of one-dimensional structures of C60 shuttlecocks on HOPG**

20th IWEPM: Molecular Nanostructures

Kirchberg, Austria 04. Mar - 11. Mar 2006

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**SE2.Integration**

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Invited Talk

*Klenk, R.; Schock, H.-W.; Ellmer, K.***Herstellung von Halbleiterschichten aus multinären Chalkopyritverbindungen**

Workshop: Verfahren für die Großflächenbeschichtung mit Halbleitermaterialien

Wörlitz/Sachsen Anhalt 17. Oct - 18. Oct 2006

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**SE4.Dynamics**

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Oral

*Schwarzburg, K.; Ellmer, K.; Kunst, M.; Tornow, J.***Evaluation of ZnO nanorods as a substrate for composite solar cells**

QUANTSOL 2006 Winter workshop

Rauris, Salzburg, Österreich 19. Mar - 25. Mar 2006

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**SE5.Energetics**

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Invited Talk

*Bogdanoff, P., Herrmann, I., Koslowski, U., Barkschat, C., Fiechter, S.***Influence of the molecular and mesoscopic structure on the electrocatalytic activity of pyrolysed CoTMPP in the oxygen reduction**

210. Meeting of the ECS

Cancun, Mexiko 28. Oct - 03. Nov 2006

Poster

*Dittrich, Th.; Neumann, B.; Junghänel, M.; Tributsch, H.***On the Possible Origin of Ruthenium-sensitizer stability Photoinduced attachment?**

Konferenzbeitrag, IPS-16 / 16th International Conference on Photochemical Conversion and Storage of Solar Energy

Uppsala, Schweden 02. Jul - 07. Jul 2006

Invited Talk

*Fiechter, S.***Preparation of Carbon Supported Ru-Se Based Catalysts and their Electrochemical Performance in DMFC Cathodes**

210. Meeting of the ECS

Cancun, Mexiko 28. Oct - 03. Nov 2006

Invited Talk

*G. Schmithals, I. Herrmann, P. Bogdanoff, S. Fiechter, H. Tributsch***Structural characterisation of catalytic sites in cobalt and iron based electrocatalysts**

O2RedNet Project Meeting

Warschau 01. Jun - 02. Jun 2006

Poster

*Herrmann, I.; Bogdanoff, P.; Fiechter, S. and Tributsch, H.***Influence of molecular carbon structure and morphology on the electrocatalytic activity of pyrolysed CoTMPP in the oxygen reduction**

II International Symposium on Carbon for catalysis - CarboCat

St. Petersburg 11. Jul - 13. Jul 2006

Oral

*Herrmann, I.; Brüser, V.; Fiechter, S.; Kersten, H.; Bogdanoff, P.***Nano-structured electrocatalysts based on plasma treated CoTMPP for the oxygen reduction**

ACHEMA

Frankfurt/Main 15. May - 18. May 2006

## Poster

*Neumann, B.; Johnson, B.; Ellmer, K.; Tributsch, H.*

**DEVELOPMENT OF A TiO<sub>2</sub>/CuInGaSe<sub>2</sub>/TiO<sub>2</sub> PHOTOELECTROCHEMICAL MEMBRANE FOR LIGHT DRIVEN FUEL GENERATION**

IPS-16 / 16th International Conference on Photochemical Conversion and Storage of Solar Energy  
Uppsala, Schweden 02. Jul - 07. Jul 2006

## Invited Talk

*P. Bogdanoff\*, G. Zehl, I. Dorbandt, S. Fiechter*

**INFLUENCE OF THE CARBON SUPPORT ON THE PREPARATION OF HIGHLY ACTIVE RUTHENIUM-SELENIUM CATALYST FOR THE ELEKTROREDUCTION OF OXYGEN**

II International Symposium on Carbon for catalysis - CarboCat  
St. Petersburg, Russland 11. Jul - 13. Jul 2006

## Oral

*Skorupska, K.; Aggour, M.; Kanis, M.; Lublow, M.; Stempel-Pereira, T.; Jungblut, H.; Lewerenz, H.J.*

**Photoactive Metal- Silicon Nanocomposite by Electrochemical Self-Organization**

210th ECS Meeting - 2006  
Cancun, Mexico 28. Oct - 03. Nov 2006

## Oral

*Skorupska, K.; Aggour, M.; Kanis, M.; Lublow, M.; Jungblut, H.; Lewerenz, H.J.;*

**Nanotopography in self-organized structure formation on silicon**

29th ECS Meeting - 2006  
Denver, USA 07. May - 12. May 2006

## Invited Talk

*Tributsch, H.*

**Nachhaltige Materialwirtschaft**

2nd Leibniz Conference of Advanced Science, Solarzeitalter 2006  
Lichtenwalde /Sachsen 11. May - 13. May 2006

## Invited Talk

*Tributsch, H.*

**Nano-Photovoltaics: what strategy and how realistic?**

Photovoltaics, The Third Generation and the Way to it  
Berlin 05. May - 05. May 2006

## Invited Talk

*Tributsch, H.*

**Experimental and theoretical modeling of Fe-, Co-, Cu-, Mn-based electrocatalysts for oxygen reduction**

5th International Conference on Electrocatalysis  
Kotor / Montenegro 31. Aug - 31. Aug 2006

## Invited Talk

*Tributsch, H.*

**Nano-structured sensitization solar cells: scientific challenges towards competitiveness**

Midnight Sun Meeting / Satellite Conference to IPS-16  
Stockholm 01. Jul - 01. Jul 2006

## Invited Talk

*Tributsch, H., Jan Cermak, Nadezhda Nadezhdina*

**Tensile Water and the Ascent of Sap in Trees as a Dynamic Selforganisation Phenomenon**

6th International Workshop on Measuring Xylem Sap Flow and its Application to Plant Science  
Perth, Australien 27. Nov - 29. Nov 2006

Oral

*Zehl, G.; Bogdanoff, P.; Dorbandt I.; Fiechter, S.; Schmithals, G.*

**Preparation of platinum-free electrocatalysts for oxygen reduction**

Project Meeting of the Network 'Efficient Oxygen Reduction for Electrochemical Energy Conversion - O2RedNet'

Bonn 24. Nov - 25. Nov 2006

Poster

*Zehl, G.; Dorbandt, I.; Bogdanoff, P.; Fiechter, S.; Tributsch, H.*

**The Influence of preparation parameters on the catalytic properties of carbon supported RuSe-electrocatalysts**

Workshop of the Network Efficient Oxygen Reduction for Electrochemical Energy Conversion - O2RedNet

Ulm 06. Apr - 07. Apr 2006

Invited Talk

*Zehl, G.; Dorbandt, I.; Fiechter, S.; Bogdanoff, P.*

**On the Influence of Preparation Parameters on the Catalytic Properties of Carbon-Supported Ru-Se Electrocatalysts**

6th International Symposium on New Materials for Electrochemical Systems

Montréal (QC), Canada 09. Jul - 12. Jul 2006

## SE5.Interfaces

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Invited Talk

*Grzanna, J.; Jungblut, H.; Lewerenz, H. J.*

**Micro- and Macropores in the Model for Current Oscillations at the Si/Electrolyte Contact**

Porous Semiconductors Science and Technology

Sitges - Barcelona 12. Mar - 17. Mar 2006

Invited Talk

*Kanis, M.; Lewerenz, H.J.*

**Developing Copperindiumdisulfide into a Solar Material (invited)**

XV International Materials Research Congress (IMRC 2006)

Cancun, Mexico, 20.08.2006

Oral

*Kanis, M.; Skorupska, K.; Lublow, M.; Aggour, M.; Stempel-Perreira, T.; Bundesmann, J.; Lewerenz, H.J.*

**Photoactive Nanocomposite Prepared by Electrochemical Self-Organization**

XV International Materials Research Congress (IMRC 2006)

Cancun, Mexico 20. Aug - 24. Aug 2006

Oral

*Lewerenz, H.J.*

**The Protein - Semiconductor Interface: Immobilization and Charge Transfer Aspects**

International Conference on Colloid and Surface Science

Peking, China 15. Oct - 20. Oct 2006

Oral

*Lewerenz, H.J.; Skorupska, K.; Grzanna, J.; Aggour, M.*

**Self-Organized Photoactive Nanostructure on Silicon by Photoelectrochemical Oscillations**

57th Annual Meeting of the International Society of Electrochemistry (ISE)

Edinburgh, Great Britain 27. Aug - 01. Sep 2006

Oral

*Lublow, M.; Lewerenz, H. J.*

**Brewster-Angle Analysis of Native and Photoelectrochemically Grown Silicon Oxide Nanotopographies**

24th European Conference on Surface Science (ECOSS 24)

Paris 04. Sep - 08. Sep 2006



Invited Talk

*Skorupska, K.*

**Step bunched silicon surface: possible application for biomolecule adsorption**

Bio-Electrochemical Workshop

University of Portsmouth, Portsmouth, England, 18.01.2006

Oral

*Skorupska, K.; Smith, J.R.; Campbell, S.A.; Lewerenz, H.J.;*

**STM Imaging of Proteins on Semiconducting Substrates**

29th ECS Meeting - 2006

Denver, USA 07. May - 12. May 2006

Poster

*Skorupska, K.; Aggour, A.; Kanis, M.; Lublow, M.; Hunger, R.; Jungblut, H.; Lewerenz, H.J.*

**Si(111) Self-Organisation on a Nanometer Scale: Accumulation Layer on Step Bunched Surface**

Bessy User's Meeting

Berlin, Germany 05. Dec - 06. Dec 2006

Poster

*Skorupska, K.; Lewerenz, H.J.*

**Si(111) Self-Organization on a Nanometer Scale: Accumulation Layer on Step Bunched Surface**

57th Annual Meeting of the International Society of Electrochemistry (ISE)

Edinburgh, UK 27. Aug - 01. Sep 2006

### SF3.BESSY

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Poster

*Haas, S.; Hoell, A.; Zehl, G.; Fiechter, S.*

**Anomalous small-angle X-ray scattering investigation of Ru-Se catalysts supported on carbon**

Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten 2006

Universität Hamburg 04. Oct - 06. Oct 2006

### SE6 - Electronic structure of semiconductor interfaces

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#### SE6.BESSY

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Oral

*Andres, S.; Pettenkofer, C.*

**Electronic structure of ZnO(11-20) single crystals and thin films**

DPG Frühjahrstagung 2006/ Dresden

Dresden 27. Mar - 31. Mar 2006

Oral

*Andres, S.; Pettenkofer, C.; Seyller, T.*

**MOMBE growth of ZnO on SiC - a photoemission study -**

DPG Frühjahrstagung 2006/ Dresden

Dresden 27. Mar - 31. Mar 2006

Oral

*Pettenkofer, C.*

**Band structure of epitaxially grown CuInS<sub>2</sub> films**

ICTMC15

Kyoto 06. Mar - 10. Mar 2006

Oral

*Pettenkofer, C.*

**Epitaxial growth of ZnO on (0001) 6H SiC**

MRS Fall meeting

Boston USA 27. Nov - 01. Dec 2006

## I - Central Scientific-Technical Infrastructure

### DE - Experimental Systems

#### DE

Poster

*Bönisch, S.; Namaschk, B.; Wulf, F.*

**Position Determination and Resolution of Position Sensitive Neutron Detectors Limited by Charge Equalization and Noise**

IEEE NSS 2006

San Diego, USA 29. Oct - 04. Nov 2006

### DN - Central Data-Processing and Network

#### SE5.Interfaces

Invited Talk

*Grzanna, J.; Jungblut, H.; Lewerenz, H. J.*

**Micro- and Macropores in the Model for Current Oscillations at the Si/Electrolyte Contact**

Porous Semiconductors Science and Technology

Sitges - Barcelona 12. Mar - 17. Mar 2006

# Invited Lectures

## SF - Structural Research

### SF - BENSC

#### SF1.BENSC

*Bentley, P. M.*

**Evolution in the guide halls**

Invited seminar

Institut Laue-Langevin, Grenoble, France, 06.02.2006

*Clemens, D.*

**New Guides for New Instruments at HMI**

KAERI/HANARO technical seminar

Daejeon, South Korea, 11.07.2006

*Schneider, R.*

**Residual Stress and Texture Analysis using Neutron and Synchrotron Radiation**

Materialwissenschaftliches Seminar

Universität Kassel 26. May - 26. May 2006

*Strobl, M.*

**Linking neutron imaging and scattering An overview of recent developments**

invited seminar talk

ANSTO, Australien, 16.11.2006

*Strobl, M.*

**Imaging with monochromatic neutrons @ HMI Berlin**

invited seminar talk

HANARO, Korea, 19.07.2006

#### SF2.BENSC

*Genzel, C.*

**X-ray diffraction analysis of residual stress fields in thin films - basic aspects and applications.**

Invited talk, Erich-Schmidt-Kolloquium, Montanuniversität Leoben.

Leoben, Österreich, 01.06.2006

*Hauß, T.*

**Time resolved protein dynamics during the photocycle of bacteriorhodopsin studied by quasi elastic neutron scattering.**

Seminar talk, Institute of Pharmacy, Martin-Luther-University Halle

Halle, 11.04.2006

*Notbohm, S.*

**Quantum Magnetic States in Ladders and Chains**

Seminar, University of St Andrews

St Andrews, U.K., 07.06.2006

*Tennant, A.*

**Probing Quantum Phase Transitions with Neutrons**

Solid State Physics Colloquium

Jülich Research Centre, 27.01.2006

*Tennant, A.*

**Quantum magnetism with neutrons**

Low temperature physics seminar series

PTB Berlin, 27.06.2006

**SF - ISL**

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**ISL.PPT**

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*Heufelder, J.*

**Database for the Determination of Monitor Units at OPTIS2**

3rd HMI-PSI OPTIS2 meeting  
Villingen, 17.06.2006

*Heufelder, J.; Naumann, I.; Stark, R.*

**Dosimetry Measurements at PSI**

2nd HMI-PSI OPTIS2 meeting  
Villingen, 03.04.2006

**ISL.User**

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*Denker, A.*

**Non-destructive elemental analysis on paintings and metal artefacts**

LANL Seminar  
Los Alamos, USA 23. Oct - 23. Oct 2006

*Denker, A.*

**PIXE - quantitative Analyse und Anwendungsbeispiele aus der Archäometrie**

Institutsseminar  
Wien; VERA Institut, 27.01.2006

*Denker, A.*

**Swift Ion Beams for Solid State Physics and Materials Science, Medicine and Science of Art**

GSI Kolloquium  
GSI Darmstadt, 23.05.2006

**SF - BESSY**

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**SF2.BESSY**

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*Darowski, N.; Dudzik, E.; Feyerherm, R.*

**Structural and magnetic transitions in MnAs/GaAs epitaxial films and perovskite manganite single crystals**

Kolloquium des Laboratoriums für Neutronenstreuung des Paul-Scherrer-Instituts  
Villingen, Schweiz, 15.03.2006

**SF3.BESSY**

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*Hoell, A.*

**Zur Charakterisierung von Nanostrukturen mit Röntgen-Kleinwinkelstreuung**

Kolloquiumsvortrag an der Universität Halle im Rahmen eines Sonderforschungsbereiches  
Halle, Germany, 12.12.2006

**SF1 - Methods and Instruments****SF1.Methods**

*Clemens, D.*

**Building a new VSANS instrument at HMI**

LLB Technical Seminar (invited)  
CEA Saclay, France, 08.06.2006

*Habicht, K.*

**Phonon and magnon linewidths measured with TAS / NRSE**

ILL - College 4 Seminar  
ILL, Grenoble, France, 10.03.2006

**SF2 - Magnetism****SF2.Quantum Phenomena**

*Tennant, A.*

**Probing Quantum Phase Transitions with Neutrons**

Colloquium of Dept of Physics  
TU Braunschweig, Germany, 18.01.2006

*Tennant, A.*

**Multiparticle states in quantum spin ladders**

Seminar  
IFW Dresden, Germany, 21.02.2006

*Tennant, A.*

**Challenges and progress in quantum magnetism**

Seminar to Department  
MPI Stuttgart, 24.01.2006

*Tennant, A.*

**Quantum correlations in quantum magnets at high field**

Physics and Mathematics Colloquium  
University of Hannover, 26.10.2006

*Tennant, A.*

**Probing Quantum Phase Transitions with Neutrons**

Colloquium of Department of Physics  
University of Tübingen, 26.07.2006

**SF3 - Materials****SF3.Nanostructures**

*Wiedenmann, A.*

**Magnetic Nanostructures as Probed by Small Angle Neutron Scattering**

Seminar JAEA  
Tokai, Japan, 18.07.2006

*Wollgarten, M.; Vierke, J.; Hoell, A.; Tatchev, D.; Haas, S.; Boesecke, M.; Haug, J.; Sahoo, K.*

**Investigation of amorphous Al-Ni-La alloys, evolution of nanostructure during thermal treatment and routes to application**

Vortrag im Nat. Inst. of Materials Science (NIMS)  
Tsukuba, Japan, 01.09.2006

## SF4 - Structure and Dynamics

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### SF4.Dynamics

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*Mahnke, H.-E.*

#### **From the photo effect to the analysis of nanostructures - X-ray absorption spectroscopy**

Seminar, Friedrich-Schiller-Universität Jena  
Jena, 07.07.2006

### SF4.Structures

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*Mahnke, H.-E.*

#### **Vom Photoeffekt zur Analyse von Nanostrukturen - Röntgenabsorptionsspektroskopie**

Kolloquium, Fachbereich Physik, Freie Universität Berlin  
Berlin, 02.06.2006

## SF5 - Theory

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### SF5.Biosystems

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*Falcke, M.*

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

Vortrag im Seminar des Neuroverbundes der Universität Magdeburg  
Magdeburg 21. Apr. 2006

*Falcke, M.*

#### **Dynamic models of cell signalling**

Bioclub der Freien Universität  
Berlin 10. Jan 2006

*Falcke, M.*

#### **Mechanism of IP<sub>3</sub> induced intracellular Ca<sup>2+</sup> oscillations**

Nottingham, UK 28. Apr 2006

*Falcke, M.*

#### **Reading the pattern in living cells - the Physics of Calcium signalling**

Kolloquium des Max Planck Institut für Dynamik und Selbstorganisation  
Göttingen 01. Mar 2006

### SF5.Soft Matter

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*Höfling, F.*

#### **Localization Transition and Dynamic Scaling of the 3D Lorentz Model**

Seminar der Gruppe "Theorie der kondensierten Materie"  
Universität Leipzig, 09.02.2006

*Höfling, F.*

#### **Dynamics of a Rod in a Crowded Environment**

Kolloid Klub Konstanz  
Konstanz, 11.07.2006

**SF6 - Trace Elements**

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**SF6.Others**

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*Bordallo, Heloisa N.*

**Water Dynamics in Concrete from Quasi-Elastic Neutron Scattering**

Seminar College 7 - Institut Laue-Langevin

Grenoble, Frankreich, 21.07.2006

**SFN1 - Magnetism and Superconductivity of Quantum Materials**

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**SF.N1**

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*Lake, B.*

**Spin-waves, Spinons and Universal Scaling in a Quantum Antiferromagnet**

Seminar at University of Stuttgart, Germany

Stuttgart, Germany, 13.12.2006



## SE - Solar Energy Research

### SE1 - Silicon photovoltaics

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#### SE1.Cells

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*Fuhs, W.*

**Dünnschichtsolarzellen aus Silizium - Ansätze und materialwissenschaftliche Herausforderungen**  
Kolloquium der TU Chemnitz, Institut für Physik, Chemnitz, 10.5.2006  
Chemnitz, Germany, 10.05.2006

*Lips, K.*

**Elektrische Detektion kohärenter Spinzustände in Festkörpern**  
Physikalisches Kolloquium des Fachbereichs Physik, Philipps Universität Marburg  
Marburg, Germany, 13.11.2006

*Nickel, N. H.*

**Lasercrystallization of silicon germanium**  
Université de Rennes I  
Rennes, France, 18.09.2006

*Nickel, N. H.*

**Properties of hydrogen in ZnO**  
AIST - Diamond Research Center  
Tsukuba, Japan, 23.10.2006

*Nickel, N. H.*

**Laser crystallization of silicon for PV applications**  
Cymer Corporation  
San Diego, USA, 21.11.2006

*Nickel, N. H.*

**Optical and electrical properties of lasercrystallized poly-Si**  
Universität Pierre & Marie Curie  
Paris, France, 06.04.2006

*Rau, B.*

**Polycrystalline Si thin-film solar cells with absorber layers grown at temperatures below 600°C by ECRCVD**  
Seminarvortrag Thomas J. Watson Laboratories des Caltech Institutes  
Pasadena, CA, USA, 24.04.2006

*Rau, B.*

**Polykristallines Dünnschicht-Silizium - effiziente und kostengünstige Solarzellen für die Zukunft**  
VDI Arbeitskreis Studenten und Jungingenieure der Fachhochschule für Technik und Wirtschaft (FHTW)  
Berlin, 15.11.2006

*Rech, B.*

**Photovoltaik und die optischen Technologien**  
Workshop von OpTec BB  
Berlin-Erkner, Germany, 01.12.2006

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**SE1.Hetero**

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*Schmidt, M.*

**Stand und Perspektiven der a-Si/c-Si Hetero-Solarzellen**

Kolloquium am Institut für Mikrosensorik (CIS),  
Erfurt, 12.12.2006

*Stangl, R.*

**Characterisation and simulation of amorphous/crystalline silicon heterojunction solar cells**

Institut für Solarenergieforschung Hameln  
ISFH, Hameln, Germany, 06.02.2006

<b>SE2 - Heterogeneous material systems</b>
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**SE2.Analytics**

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*Schedel-Niedrig, Th.*

**Materialeigenschaften und Anwendung von Chalkopyrit-Dünnschichten in der Photovoltaik**

Festkörperchemisches und analytisches Seminar  
TU Berlin, Germany, 09.11.2006

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**SE2.Chemistry**

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*Fischer, C.-H.*

**Spray-ILGAR buffer layers for highly efficient solar cells**

Institutskolloquium, Thin Film Physics Group, ETH Zürich  
Zürich, 02.07.2006

*Fischer, Ch.-H.*

**ILGAR - an in-line suitable low-cost method for the deposition of high quality semiconductor layers for chalcopyrite solar cells**

Institutskolloquium National Renewable Energy Laboratory (NREL)  
Golden (Colorado), USA, 02.05.2006

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**SE2.Concepts**

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*Fostiropoulos, K.*

**Interfaces in organic solar cells**

Kolloquium: Lichttechnisches Institut  
Karlsruhe, 20.02.2006

*Fostiropoulos, K.*

**Organic nano-structures for photovoltaic applications**

Seminar, Fritz-Haber-Institut, Prof Schlögl  
Berlin, 29.09.2006

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**SE2.Contacts**

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*Lux-Steiner, M. Ch.*

**CuInS<sub>2</sub> Solar Cells - From Research to Industrial Implementation**

University of Neuchatel  
Neuchatel, Switzerland, 10.07.2006

*Rusu, M.*

**Physical processes at the interfaces of thin film solar cells**

Academy of Sciences of Moldova  
Chisinau, Moldova, 10.01.2006

## SE2.Semico

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*Lux-Steiner, M. Ch.*

### **Chalcopyrite Solar Cells: Interfaces and Grain Boundaries**

Stiftung Caesar

Bonn, Germany, 25.04.2006

*Lux-Steiner, M. Ch.*

### **Dünnschichtsolarzellen für die zukünftige Energieversorgung**

Physikalisch-Technische Bundesanstalt

Braunschweig, Germany, 01.11.2006

*Siebentritt, S.*

### **Chalkopyrite, Solarzellen, Punktdefekte und Korngrenzen**

Werkstoffwissensch. Kolloquium

Uni Erlangen, Germany, 05.12.2006

*Siebentritt, S.*

### **Chalkopyrite, Solarzellen, Punktdefekte und Korngrenzen**

Physikalisches Kolloquium

TU Freiberg, Germany, 14.11.2006

## SE3 - Technology

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### SE3.Others

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*Schorr, S.*

### **Structural investigations of novel chalcopyrite type related materials for thin film photovoltaics**

Forschergruppenkolloquium

Kiel, 27.11.2006

## SE4 - Dynamics of interfacial reactions

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### SE4.Cells

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*Hannappel, T.*

### **Langsames Licht und schnelle Nanotröpfchen**

Vortrag Freie Universität Berlin, Fachbereich Physik

Berlin, 15.02.2006

*Hannappel, T.*

### **III-V-based solar cells**

Young scientists summer school on photovoltaics

Pärnumaa, Estonia, 21.08.2006

### SE4.Others

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*Janata, E.*

### **Pulse Radiolysis: Method, Instrumentation and Applications**

Seminar Electron and Photon Driven Reactions

Freie Universität Berlin, Physikalische und Theoretische Chemie, 01.12.2006

**SE5 - Solar energy****SE5.Energetics**

*Ellmer, K.*

**Die Renaissance des Halbleiters Zinkoxid: Eigenschaften, Probleme und Anwendungen**

Seminar Lehrstuhl Prof. Brewer, Freie Universität Berlin, Physik  
Berlin-Dahlem, 16.11.2006

*Fiechter, S.*

**Zur Rolle von Mischphasen bei der Herstellung von Dünnschichtsolarzellen und Elektrokatalysatoren. Moderne Fragestellungen der Festkörperforschung in den Material- und Geowissenschaften**

Ringvorlesung der Technischen Universität Berlin im WS 2005 / 2006  
TU-Berlin, Chemisches Institut, 26.01.2006

*Fiechter, S.*

**Röntgenfeinstruktur an amorphen Phasen**

Festkörperchemisches und -analytisches Seminar  
Berlin, TU, 30.11.2006

*Tributsch, H.*

**Energiebionik-Evolution als Vorbild für nachhaltige Energiekreisläufe**

Kunststoffe im Automobilbau  
Mannheim, 29.03.2006

*Tributsch, H.*

**Protonenleitung über Aminosäure-berandete Kanäle: eine bionische Strategie**

Vortrag, Christian-Albrechts-Universität Kiel  
Kiel, 22.05.2006

**SE5.Interfaces**

*H.-J. Lewerenz*

**Photovoltaic Solar Energy Conversion: from Fundamentals to Advanced Nanostructures**

Jilin University  
Changchun; China, 26.10.2006

*Kanis, M.; Lewerenz, H.J.*

**Material Science Aspects of Copperindiumsulfide for Solar Applications**

MSE-Seminar, North Carolina State University  
Raleigh, North Carolina/USA, 18.08.2006

*Lewerenz, H.J.*

**Charge Carriers in Proteins: a Novel Transport Alternative**

Brandenburg. Techn. Universität Cottbus  
Cottbus, 27.11.2006

*Lewerenz, H.J.*

**Self-Organized Nanotopographies for Photonics and Proteomics**

Analytical Seminar, Colorado State University  
Colorado State University, Fort Collins, USA, 26.04.2006

*Lewerenz, H.J.*

**Semiconductor-Protein Junctions**

Seminar  
Portsmouth University, Portsmouth, U.K., 16.01.2006

*Lewerenz, H.J.*

**Self-Organized Nanostructures for Photovoltaic and Proteomic Applications**

MSE Seminar Series, North Carolina State University  
North Carolina State University, Raleigh, USA, 19.04.2006

*Skorupska, K.*

**Electrochemically induced self-organized nanostructures on Si: step bunching and photoactive Pt - Si nanocomposite**

Seminar  
Colorado State University, Fort Collins, USA, 03.05.2006

*Skorupska, K.*

**From H-terminated Si surface to Self-Organized and Photoactive Nanostructures: A combined Electrochemistry / UHV Surface Science Approach**

MSE Seminar Series  
North Carolina State University, Raleigh, USA, 07.11.2006

*Skorupska, K.*

**Proteins: Main Properties and Their Immobilization on Surfaces**

Seminar, Adsorption Proteins on Silicon Surface  
Brandenburgische Technische Universität, Cottbus, Germany, 27.11.2006

<b>SE6 - Electronic structure of semiconductor interfaces</b>
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**SE6.BESSY**

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*Pettenkofer, C.*

**grenzflächen untersuchungen an Halbleiteroberflächen**

Antrittsvorlesung BTU-Cottbus  
Cottbus, 17.01.2006

*Pettenkofer, C.*

**N-Dotierung von ZnO**

Spektroskopie Workshop TU-Cottbus  
Cottbus, 30.08.2006

## Patents and Patent Application

### Patents

Dep.	HGF-Programme	Inventor	Title	Date of filing	Date of grant
SE1	Energy	Kytin, V.; Kytina, I.; Lips, K.	Verfahren zur Herstellung eines Feststoff-Polymer-Lasermediums DE: 102004038307	30.12.99	30.12.99
SE1	Energy	Conrad, E.; Korte, L.; Schmidt, M.; von Maydell, K.	Amorph/kristalline Silizium- Heterosolarzelle DE: 202005019799	30.12.99	30.12.99
SE2	Energy	Mertesacker, B.; Pietzak, B.; Weidinger, A.	Elektrode zur Herstellung von höheren Fullerenen nach dem Krätschmer-Huffman- Lichtbogenverfahren DE: 19780627	30.12.99	30.12.99
SE2	Energy	Mertesacker, B.; Pietzak, B.; Waiblinger, M.; Weidinger, A.	Elektronenemitter und Verfahren zu dessen Herstellung KR: 10588738	30.12.99	30.12.99
SE2	Energy	Fischer, C.; Lux-Steiner, M.C.; Muffler, H.	Verfahren zur Herstellung dünner, schwer löslicher Beschichtungen IN: 198617 CN: 8059608	30.12.99	30.12.99
SE2	Energy	Harneit, W.; Jäger-Waldau, A.A.; Lux- Steiner, M.C.	Verfahren zur Herstellung eines Solarmoduls mit integriert serienverschalteten Dünnschicht- Solarzellen US: 7019207	30.12.99	30.12.99
SE2	Energy	Hofsäss, H.; Krauser, J.; Mertesacker, B.; Weidinger, A.; Zollondz, J.	Quantenpunkt aus elektrisch leitendem Kohlenstoff, Verfahren zur Herstellung und Anwendung DE: 1595266 FI: 1595266 FR: 1595266 GB: 1595266 NL: 1595266	30.12.99	30.12.99
SE2	Energy	Fostiropoulos, K.; Johnev, B.; Vogel, M.	Verfahren zur Passivierung der anorganischen Elektrode einer organischen Solarzelle und organische Solarzelle DE: 10307772	30.12.99	30.12.99
SE2	Energy	Ennaoui, A.; Kropp, T.; Lux- Steiner, M.C.	Verfahren zum Aufbringen einer Zinksulfid-Pufferschicht auf ein Halbleitersubstrat mittels chemischer Badabscheidung DE: 102004040546	30.12.99	30.12.99
SE5	Energy	Dietz, N.; Lewerenz, H.	Reflektometer für spektroskopische Untersuchungen DE: 4211741	30.12.99	30.12.99

Dep.	HGF-Programme	Inventor	Title	Date of filing	Date of grant
SE5	Energy	Jungblut, H.; Lewerenz, H.; Schubert- Bischoff, P.	Mechanisch stabile Anordnung mit mindestens einem photonischen Kristall und Verfahren zu deren Herstellung DE: 10101119	30.12.99	30.12.99
SE5	Energy	Bogdanoff, P.; Bron, M.; Dorbandt, I.; Fiechter, S.; Hilgendorff, M.; Schulenburg, H.; Tributsch, H.	Platinfreies Chelat-Katalysatormaterial für die selektive Sauerstoffreduktion und Verfahren zu seiner Herstellung EP: 1401574	30.12.99	30.12.99
SF1	Structure of matter	Mezei, F.; Russina, M.	Neutronenoptisches Bauelementanordnung zur gezielten spektralen Gestaltung von Neutronenstrahlen oder -pulsen US: 7030397	30.12.99	30.12.99
SF1	Structure of matter	Cussen, L.; Krist, T.; Mezei, F.	Strahlungsoptisches Bauelement DE: 102004031934	30.12.99	30.12.99
SF4	Structure of matter	Fink, D.; Hoppe, K.	Sensor mit einem Feld aus Nanoporen und Verfahren zur Herstellung DE: 102004040239	30.12.99	30.12.99
SF4	Structure of matter	Fink, D.	Vorrichtung zur Reinigung von Flüssigkeiten DE: 102005015276	30.12.99	30.12.99
SF4	Structure of matter	Fink, D.; Hoppe, K.; Tabacniks, M.	Schallsensor nach dem Tauchspulprinzip und Verfahren zur Herstellung DE: 102005040293	30.12.99	30.12.99

## Patent applications

Dep.	HGF-Programme	Inventor	Title	Date of filing
SE1	Energy	Böhme, C.; Hoheisel, M.; Lips, K.; Pfister, M.	Verfahren und Vorrichtung zur Untersuchung eines biologischen Gewebes WO: PCT/EP2006/061577	13.04.06
SE1	Energy	Böhme, C.; Hoheisel, M.; Lips, K.; Scholz, B.	Verfahren und Vorrichtung zur nicht invasiven Untersuchung eines Objektes WO: PCT/EP2006/061573	13.04.06
SE1, SE5	Energy	Kunst, M.; Lips, K.; Schmidt, M.; Schneider, J.; Stangl, R.; Wünsch, F.	Verfahren zur Herstellung einer einseitig kontaktierten Solar- zelle und einseitig kontaktierte Solarzelle WO: PCT/DE2006/000917	22.05.06
SE1	Energy	Conrad, E.; Korte, L.; Schmidt, M.; von Maydell, K.	Amorph/kristalline Silizium-Heterosolarzelle WO: PCT/DE2006/002263	12.12.06
SE1	Energy	Gall, S.; Stangl, R.	Einseitig kontaktierte Solarzelle mit Durchkontaktierungen und Verfahren zur Herstellung DE: 102006027737.6-33	10.06.06 Prior application
SE2, SE5	Energy	Ellmer, K.; Fostiropoulos, K.; Lux-Steiner, M.C.; Mohr, M.	Verfahren zum Aufbringen von transparenten Kontaktelektroden auf die Schichtenfolge von optoelektronischen Bauelementen mit DE: 102006002430.3-33	10.01.06 Prior application
SE2, SE5	Energy	Ellmer, K.; Fostiropoulos, K.; Lux-Steiner, M.C.; Mohr, M.	Verfahren zur Herstellung strukturierter Schichten transparenter leitender Oxide auf organischen Halbleiterschichten oder DE: 102006002428.1-43	10.01.06 Prior application
SE2	Energy	Fuertes Marrón, D.; Lehmann, S.; Lux-Steiner, M.C.; Sadewasser, S.	Verfahren zur Herstellung von in einer Matrix eingebetteten Quantenpunkten und mit dem Verfahren hergestellte in einer Matrix DE: 102006060366.4	16.12.06 Prior application
SE2, SF4	Energy	Chandra, A.; Chen, J.; Fink, D.	Poröses Substrat mit nicht durchgängigen Öffnungen, Verfahren zur Herstellung und Bauelement damit DE: 102006052192.7	02.11.06 Prior application
SE5	Energy	Bogdanoff, P.; Fiechter, S.; Herrmann, I.	Verfahren zur Herstellung eines platinfreien Chelat-Katalysator- materials und elektrokatalytische Elektrode WO: PCT/DE2006/000326 DE: 102006008328.8-41	20.02.06
SE5	Energy	Abdallah, O.; Citarella, G.; Kunst, M.; Wünsch, F.	Heterokontaktsolarzelle mit invertierter Schichtstrukturgeometrie WO: PCT/DE2006/000670	11.04.06
SE5	Energy	Junghänel, M.; Tributsch, H.	Photoelektrische Solarzelle mit einer elektrolytfreien Kontaktschicht und Verfahren zur Herstellung DE: 102006013405.2-33	19.03.06 Prior application



Dep.	HGF-Programme	Inventor	Title	Date of filing
SE5	Energy	Aggour, M.; Lewerenz, H.	Photovoltaisches Bauelement mit metallischen Nanoemittern in einer Nanostrukturierung und Verfahren zur Herstellung DE: 102006016999.9-33	09.04.06 Prior application
SE5	Energy	Goldmann, G.; Tributsch, H.; Zähr, M.	Temperaturstabile Photovoltaikanlage in baumähnlichem Erscheinungsbild DE: 102006054531.1	15.11.06 Prior application
SE5	Energy	Ellmer, K.; Unold, T.	Reaktives Magnetron-Sputtern zur großflächigen Abscheidung von Chalkopyrit-Absorberschichten für Dünnschichtsolarzellen DE: 102006057068.5	29.11.06 Prior application
SF1	Structure of matter	Krist, T.	Neutronenpolarisator zur Erzeugung von polarisierten Neutronenstrahlen CH: 00232/06	14.02.06
SF1	Structure of matter	Krist, T.	Anordnung zur Fokussierung eines Neutronenstrahls und Verfahren zu dessen Herstellung DE:	31.12.06 Prior application
SF3	Structure of matter	Banhart, J.; Garcia-Moreno, F.	Verfahren zur pulvermetallurgischen Herstellung von Metallschaumstoff WO: PCT/DE2006/001375	02.08.06
SF3	Structure of matter	Bieder, H.; Hoell, A.; Mokrani, L.; Zizak, I.	Einrichtung zur Kleinwinkelstreuung zur Analyse der Nanostruktur an Proben mittels Röntgenstrahlung DE: 102006029449.1-52	21.06.06 Prior application
SF3	Structure of matter	Babcsán, N.; Banhart, J.; Kumar, G.V.; Murty, B.	Verfahren zur Herstellung von Metallschäumen und Metallschaum DE: 102006031213.9-24	03.07.06 Prior application
SF4	Structure of matter	Brünger, W.H.; Fink, D.	Verfahren zum Herstellen einer Nanostruktur auf einem Substrat WO: PCT/EP2006/000335	16.01.06
SF4	Structure of matter	Fink, D.	Messverfahren zur in-situ-Kontrolle des chemischen Ätzzvorgangs von latenten Ionenspuren WO: PCT/DE2006/001376	02.08.06
SF4	Structure of matter	Fink, D.	Intelligente Filtervorrichtung mit einer Überwachungseinheit DE: 102006008324.5-27	18.02.06 Prior application
SF4	Structure of matter	Fink, D.	Miniaturisierte Transportsysteme aus einem Formgedächtnis-Polymer und Verfahren zur Herstellung DE: 102006008315.6-54	18.02.06 Prior application
SF4	Structure of matter	Fahrner, W.; Fink, D.; Hoppe, K.; Sandkühler, U.; Stanski, B.	Schaltungsanordnung zur Spannungspulserzeugung DE: 102006047358.2-42	29.09.06 Prior application

## Academic Education

### Lectures, Courses, ...

Dep.	Lecturer	Topic	Course	University	Hrs/week
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Summer Term 2006					
SF1	Mezei, F.	Doktorandenseminar	seminar	TU-Berlin	2
SF2	Tennant, A.	Advanced Magnetism	lecture	TU-Berlin	2
SF2	Tennant, A.	Ausgewählte Kapitel der Neutronenstreuung (Magnetismus, Phasenübergänge)	seminar	TU-Berlin	2
SF3	Banhart, J.	Seminar Moderne Werkstoffe: Herstellung und Charakterisierung	seminar	TU-Berlin	2
SF3	Banhart, J.	Technologie der Aluminiumwerkstoffe (II)	lecture	TU-Berlin	2
SF4	Mahnke, H.; Schiwietz, G.	Festkörperphysik mit Ionenstrahlen	seminar	FU und TU Berlin übergreifend	2
SF4	Schwietz, G.	Einführung in das Physikalische Grundpraktikum III	lecture	TU-Berlin	2
SF4	Schumacher, G.	Physik der Superlegierungen	lecture	TU-Berlin	2
SF4	Schumacher, G.	Physik der Superlegierungen	seminar	TU-Berlin	2
SF5	Casagrande, V.; Straube, R.	Statistische Physik: Theorie der Wärme	tutorial	FU-Berlin	4
SF5	Falcke, M.	Statistische Physik: Theorie der Wärme	lecture	FU-Berlin	4
SFN1	Lake, B.; Siemensmeyer, K.	Neutronen als Sonde zur Untersuchung von Kondensierter Materie	lecture	TU-Berlin	4
SFN1	Lake, B.; Siemensmeyer, K.	Neutronenstreuung und Dynamik kondensierter Materie	lecture	TU-Berlin	4
SE1	Nickel, N.H.	Wasserstoff in Festkörpern II	lecture	TU-Berlin	1
SE2	Fischer, C.; Lauermann, I.	Instrumentelle Analytik, Analytik anorganischer Dünnschichtsysteme	lab course	FU-Berlin	2
SE2	Fischer, C.	Quantitative Analyse	lecture	FU-Berlin	2
SE2	Harneit, W.	Fortgeschrittenen Praktikum Teil A - Versuch Compton Effekt	lab course	FU-Berlin	2
SE2	Sadewasser, S.	Fortgeschrittenen Praktikum Teil B Versuch - Solarzellen	lab course	FU-Berlin	2
SE2	Siebentritt, S.	Halbleiterphysik	lecture	FU-Berlin	4
SE2	Siebentritt, S.	Halbleiterphysik	tutorial	FU-Berlin	2
SE3	Schock, H.	Bauelemente für die photovoltaische Energieumwandlung	lecture	TU-Berlin	3
SE3	Schock, H.; Kötschau, I.; Weber, A.	Herstellung einer Siliziumsolarzelle	lab course	TU-Berlin	3
SE5	Lewerenz, H.J.	Energieumwandelnde Halbleiterstrukturen	seminar	TU-Berlin	2
SE5	Lewerenz, H.J.	Elektrochemische Nanotechnologie	lecture	TU-Berlin	2

Dep.	Lecturer	Topic	Course	University	Hrs/week
SE5	Tributsch, H.	Bionische Forschung: Strategien zur regenerativen Energienutzung	lecture	FU-Berlin	2
SE6	Pettenkofer, C.	Halbleitergrenzflächenphysik	lecture	TU-Cottbus	2

Winter Term 2006/2007					
SF2	Tennant, A.	Advanced Magnetism	lecture	TU-Berlin	2
SF2	Tennant, A.; Lake, B.	28th HMI School on Neutron Scattering	lab course	TU-Berlin	3
SF2	Tennant, A.	Ausgewählte Kapitel der Neutronenstreuung (Magnetismus, Phasenübergänge)	seminar	TU-Berlin	2
SF3	Banhart, J.	Technologie der metallischen Leichtbauwerkstoffe (I)	lecture	TU-Berlin	4
SF3	Haibel, A.	Tomographie	lecture	TU-Berlin	2
SF4	Mahnke, H.; Heyn, M.P.	Einführung in die Kern- und Teilchenphysik	lecture	FU-Berlin	4
SF4	Mahnke, H.; Schiwietz, G.	Ionenstrahlenphysik	seminar	TU und FU-Berlin übergreifend	2
SF4	Schiwietz, G.	Einführung in das Physikalische Grundpraktikum III	lecture	TU-Berlin	2
SE1	Nickel, N.H.; Esser, N.	Physik für Chemiker	lecture	TU-Berlin	4
SE2	Fischer, C.	Quantitative Analyse	lecture	FU-Berlin	2
SE2	Harneit, W.	Fortgeschrittenen Praktikum Teil A - Versuch zum Compton-Effekt	lab course	FU-Berlin	2
SE2	Lux-Steiner, M.C.;	Lehrseminar B: Erneuerbare Energien	seminar	FU-Berlin	2
SE3	Schock, H.; Kötschau, I.; Weber, A.	Herstellung einer Siliziumsolarzelle	lab course	TU-Berlin	3
SE5	Fiechter, S.	Materialien für Solar- und Brennstoffzellen - Präparation und physikalisch-chemische Charakterisierung	lecture	TU-Berlin	2
SE5	Fiechter, S.	Zur Rolle von Mischphasen bei der Herstellung von Dünnschichtsolarzellen und Elektrokatalysatoren	lecture	TU-Berlin	2
SE5	Fiechter, S.	Röntgenfeinstrukturuntersuchungen an amorphen Phasen	seminar	TU-Berlin	2
SE5	Lewerenz, H.J.; Skorupska, K.	Photovoltaische Solarzellen	lecture	TU-Berlin	2
SE5	Lewerenz, H.J.; Skorupska, K.	SE Materialien für zukünftige Silizium-Nano-Technologien	seminar	Universität Cottbus	1
SE5	Lewerenz, H.J.; Skorupska, K.	Energieumwandelnde Halbleiterstrukturen	seminar	TU-Berlin	2
SE6	Pettenkofer, C.	Einführung in die Physik 1	lecture	TU-Cottbus	4
SE6	Pettenkofer, C.	Einführung in die Physik 1	tutorial	TU-Cottbus	4

## Exams

Dep.	Author	Title	University	Date
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Habilitation				
SE3	Schorr, S.	Phasenbeziehungen und Metallordnung multinärer Halbleitermischkristalle von Zinkblendederivaten	Universität Leipzig, Fakultät für Chemie und Mineralogie	11/06
SE4	Hannappel, T.	InP(100)-based interfaces for photovoltaics prepared via metal organic chemical vapor deposition	FU-Berlin	02/06

Ph. D.				
SF3	Matjasevic, B.	Characterisation and Optimisation of Blowing Agent and Alloy Coposition for Making Optimum Metal Foams	TU-Berlin	02/06
SF3	Perroud, O.	Neutronenkleinwinkelstreuung zur Charakterisierung magnetischer Gläser	TU-Berlin	08/06
SF3	Rack, A.	Untersuchung komplexer Materialsysteme mittels Synchrotron-Tomographie und 3D-Bildanalyse	TU-Berlin	04/06
SF5	Höfling, F.	Dynamics of Rod-Like Macromolecules in Heterogeneous Materials	LMU München	10/06
SF5	Pierobon, P.	Driven lattice gases: models for intracellular transport	LMU München	05/06
SF6	Bukalis, K.	Untersuchungen zur Identifizierung neuer Metalloproteine und Selenoproteine im respiratorischen Trakt der Ratte.	FU-Berlin	04/06
SF6	Dalla Puppa, L.	Protective Effekte von Selenium in Microglia	FU-Berlin	07/06
SF6	Hoppe, B.	Untersuchungen zur Regulation des Gehirnselenstoffwechsels und zu Selenoproteinen im ZNS	FU-Berlin	01/06
SE1	Korte, L.	Die elektronische Struktur des amorph-kristallinen Silizium-Heterostruktur-Kontakts	Philipps-Universität Marburg	06/06
SE1	Petter, K.	Defekte in epitaktisch gewachsenen Silizium-Schichten (Niedertemperaturepitaxie)	Philipps Universität Marburg	01/06
SE2	Doka Yamigno, S.	Characterization of as-grown and Ge-ion implanted CuGaSe <sub>2</sub> thin films prepared by the CCSVT technique	FU-Berlin	11/06
SE2	Johnev, B.	Chemical Engineering of the Electronic Properties of ITO-Organics Interface in Phthalocyanine/C60-Fullerene Organic Solar Cells	FU-Berlin	02/06
SE2	Naydenov, B.	Encapsulation of Endohedral Fullerenes for Quantum Computing	FU-Berlin	11/06

Dep.	Author	Title	University	Date
SE3	Enzenhofer, T.	Festkörperreaktionen und Diffusionsprozesse bei der schnellen Bildung von Halbleiterschichten im System Cu-In-S	TU-Berlin	12/06
SE5	Herrmann, I.	Entwicklung und Optimierung neuer Präparationsverfahren von Übergangsmetall-basierten Elektrokatalysatoren für die Sauerstoffreduktion.	FU-Berlin	02/06
SE5	Seeger, S.	Herstellung und strukturelle, optische und elektrische Charakterisierung von Schichtgittersulfiden (MoS <sub>2</sub> , WS <sub>2</sub> ) für die Photovoltaik	TU-Berlin	01/06
SE5	Thomalla, M.	Nanostrukturierte Compositesolarzelle	FU-Berlin	09/06

<b>Diploma</b>				
SF1	Gau, Y.	Untersuchungen neutronenoptischer Elemente im Doppelkristalldiffraktometer	TFH-Berlin	09/06
SF1	Riemke, M.	Qualitative Spektrumsbestimmung sowie Inbetriebnahme einer energiewirksamen Option für CONRAD	TFH-Berlin	09/06
SF1	Rolfs, K.	Züchtung und magnetisch-strukturelle Charakterisierung von Einkristallen der Heusler Legierung Ni-Mn-Sn	FU-Berlin	09/06
SF1	Staack, K.	Quantitative Refraktionstomographie	TFH-Berlin	09/06
SF1	Zilly, F.	MonteCarlo-Simulation der Neutronenbeugung an einer mehrphasigen, texturierten, spannungsbehafteten Probe beliebiger Geometrie	FU-Berlin	11/06
SF2	Landsgesell, S.	Darstellung, Strukturbestimmung und Bestimmung der magnetischen Eigenschaften von Neodym-Yttrium Manganiten (III): Nd <sub>1-x</sub> Y <sub>x</sub> MnO <sub>3</sub>	FU-Berlin	08/06
SF3	Freidank, H.	Synchrotron-Tomographie an proteinbasierten keramischen Schäumen	TFH-Berlin	03/06
SF3	Rueda, A.	Untersuchung der Mikrostruktur und des Fließverhaltens binärer thixotroper Legierungen mit Synchrotronstrahlung	TU-Berlin	10/06
SF3	Schmidt, G.	Untersuchung der Struktur und Funktionsweise verschiedener GDLs und MEAs in Brennstoffzellen mittels Synchrotron-Tomografie	FHTW	09/06
SF3	Slaby, J.	Automatisierung der Justierung eines Synchrotron-Tomographiemessaufbaus	BA Berlin	08/06
SF5	Bentele, K.	Calcium Dynamics - Single Channel Approximation and Green's Matrix Approach	FU-Berlin	12/06
SF5	Zeller, S.	Hybrid-Modell zur Beschreibung der intrazellulären Ca <sup>2+</sup> - Dynamik	TU-Berlin	12/06

Dep.	Author	Title	University	Date
SF6	Bahr, D.	Realisierung und Erprobung von Softwareerweiterungen an einem Synchrotronstrahlungs-Messplatz zur ortsauflösenden Röntgenfluoreszenzanalyse	TFH-Berlin	11/06
SE1	Behrends, J.	Spinabhängiger Transport und Rekombination in a-Si/c-Si-Heterostrukturen	Carl-von-Ossietzky-Universität, Oldenburg	06/06
SE1	Gluba, M.A.	Elektronenspinresonanzuntersuchungen an Zinkoxyd	TU-Berlin	02/06
SE1	Gorka, B.	Silizium-Niedertemperaturepitaxie mit Hilfe von ionenassistierter Deposition	Universität Bielefeld, Fakultät für Physik	05/06
SE2	Augustin, S.	Ellipsometrische Photolumineszenz an CuGaSe <sub>2</sub> -Defekten	FU-Berlin	10/06
SE2	Bierau, F.	Elektrische und optische Eigenschaften von TiO <sub>2</sub>	FU-Berlin	08/06
SE2	Breuer, S.	Elektrosorption von Glutamat an Germanium	FU-Berlin	10/06
SE2	Eisenbarth, T.	Charakterisierung von einzelnen Kornzgrenzen in CuGaSe <sub>2</sub> -Bikristallen	FU-Berlin	10/06
SE2	Hofstetter, J.	Ge und Sn in CuGaSe <sub>2</sub>	FU-Berlin	03/06
SE2	Kalafatoglu, Y.	Rekombination von Ladungsträgern in Dünnschichtsolarzellen mit koverdampften CuGaSe <sub>2</sub> -Absorbern	TU-Berlin	10/06
SE2	Leendertz, C.	Simulation der Kelvinsondenkraftmikroskopie zur Quantifizierung von Messungen an Korngrenzen in CuGaSe <sub>2</sub> -Bikristallen	FU-Berlin	09/06
SE2	Loreck, C.	Sputter-(Zn,Mg)O als Pufferschicht in cadmiumfreien Chalkopyrit-Dünnschichtsolarzellen: Präparation, elektronenspektroskopische Grenzflächenanalyse und Solarzelleneigenschaften	TU-Berlin	02/06
SE2	Schäfer, S.	Gepulste EDMR in C60-Filmen	FU-Berlin	10/06
SE2	Wimmer, M.	Elektrische Transportuntersuchungen an einzelnen $\gamma$ -Korngrenzen in CuGaSe <sub>2</sub> -Bikristallen	FU-Berlin	10/06
SE3	González Liano, M.A.	Entwicklung und Aufbau eines automatisierten Messsystems zur Extraktion von Solarzellenparametern aus dafür angepassten Teststrukturen	TFH-Berlin	05/06
SE4	Cherkouk, C.	Präparation und Charakterisierung von ZnO Einkristalloberflächen für Femtosekunden zeitaufgelöste Messungen an sauberen und mit Farbstoff bedeckten Oberflächen	FU-Berlin	05/06
SE5	Johnson, B.	Optische und elektrische Optimierung einer photovoltaischen Dünnschicht Membran (CIS-TiO <sub>2</sub> )	TU-Berlin	05/06

Dep.	Author	Title	University	Date
SE5	Knauer, M.	Elektrochemische Untersuchungen zur Inhibitierung von Cobalt- und Eisenhaltigen Katalysatoren für die Sauerstoffreduktion	FU-Berlin	01/06
SE5	Pauli, T.	Versiegelung von Dünnschicht-Solarzellen nach einem bionischen Vorbild	FHTW	07/06
SE5	Schoppa, M.	Thermogravimetrische und massenspektroskopische Untersuchungen zur Dichtigkeit von Versiegelungen für Farbstoff-Solarzellen	FHTW	01/06
SE5	Szabó, N.	Infrarotspektroskopische Untersuchung von Wasser in Nanoporen	FU-Berlin	10/06
SE5	Thiel, K.	Bestimmung und Modifikation der Hydrophilie der Kohlenstoffmatrix von pyrolysierten CoTMPP Katalysatoren.	FU-Berlin	08/06
HAD	Förster, A.	Konzeption eines Systems zur Netzwerkverwaltung am Hahn-Meitner-Institut Berlin	Berufsakademie in der FHW Berlin	08/06
HAD	Gasse, J.	Konzeption und Erstellung einer Software zur Serialisierung und automatisierten Analyse von komplexen Daten aus unterschiedlichen Quellen	Berufsakademie in der FHW Berlin	08/06
HAD	Poppe, I.	Modellierung und Visualisierung von Gleichgewichtszuständen in kristallinen Neigesystemen	Berufsakademie in der FHW Berlin	08/06
HAD	Slaby, J.	Automatisierung der Justierung eines Synchrotron-Tomographiemessaufbaus	Berufsakademie in der FHW Berlin	08/06

<b>Master Thesis</b>				
SF3	Barekar, N.	Effect of melt spinning process parameters on the microstructure of Al-Ni-La alloys	Indian Institute of Technology	07/06
SF3	Hilger, A.	Bestimmung der gerätespezifischen Parameter der Tomographiestation CONRAD und erste Messungen	TFH-Berlin	10/06

<b>Studienarbeit</b>				
SF3	Goergen, S.	Herstellung und Charakterisierung von Gläsern auf Basis von Aluminium	TU-Berlin	12/06
SF3	Hiller, S.	Untersuchung des Einflusses verschiedener Prozessparameter auf die Schäumbarkeit von Aluminium	TU-Berlin	03/06

**Summer students etc.**

The 19<sup>th</sup> HMI Summer Programme for undergraduate students took place from August 7<sup>th</sup> to September 29<sup>th</sup>, 2006. 24 students, including 10 from abroad, joined in actual research projects and participated in a series of seminars informing about the activities of the HMI.

Beyond the Summer Programme, 10 student trainees and 58 high school trainees visited the HMI for individual training projects.



## Faculty appointments and Awards

### Faculty appointments

Dep.	Name	Position	Date
SF1	Peters, J.	Prof des Universités, Université Joseph Fourier Grenoble 1	accepted 09/06
SE1	Rech, B.	W3-position TU-Berlin	accepted 01/07

### Awards

Dep.	Name	Award
SF2	Darowski, N.	Poster Preis der SNI, 06.10.2006
SF6	Grbavac, I.	Posterpreis vom 23. Workshop 2006 Macro and Trace Elements/Jena, 27.09.2006
SF6	Nunes Bordallo, H.	Posterpreis der SNI 2006, 06.10.2006
SE1	Rudigier, E.	She-Study Award, SHELL AG Deutschland, 08.12.2006
SE1	Schmidt, M.	Paper Award WCPEC-4, Hawaii , 11.05.2006
SE4	Tornow, J.	Prof. Werner Petersen Preis der Technik, 25.11.2006
WGF	Steiner, M.	Ehrenprofessur, China Institute of Atomic Energy (CIAE), Peking, China, 18.05.2006

## Participation in external scientific bodies and committees

Dep.	Name	Committee / Board / Scientific body
SF	Steitz, R.	ILL Scientific Panel: Sub-Committee 9
SF1	Habicht, K.	ILL College 4 Subcommittee
SF1	Krist, T.	Chairman COST Action P7
SF1	Mezei, F.	Journal of Neutron Research
SF1	Mezei, F.	Experimental Facilities Advisory Oversight Committee of the SNS Project, Oakridge (USA)
SF1	Mezei, F.	International Advisory Committee of Conference on Polarized Neutrons in Condensed Matter Investigations
SF1	Mezei, F.	Scientific Council Laboratoire Leon Brillouin (LLB), Saclay, France
SF1	Mezei, F.	European Neutron Scattering Association (ENSA), Switzerland
SF1	Mezei, F.	International Advisory Council of the Budapest Neutron Center (BNC), Budapest, Hungary
SF1	Pappas, C.	ILL College 4 Subcommittee
SF1	Pappas, C.	International Conference on Polarized Neutrons PNCMI 2006
SF1	Schneider, R.	VDI Beirat FRM II
SF1	Treimer, W.	Kuratorium TFH
SF1	Treimer, W.	Fachgruppensprecher für Studiengang Medizinphysik
SF2	Feyerherm, R.	BESSY Nutzausschuss
SF2	Graf, H.	Instrumentierungsausschuss FRM-II
SF2	Graf, H.	BMBF Gutachterausschuss „Erforschung kondensierter Materie an Großgeräten“
SF2	Holub-Krappe, E.	Executive Committee of the International X-Ray Society
SF2	Holub-Krappe, E.	International Executive XAFS Committee of the Union of Crystallography
SF2	Holub-Krappe, E.	International Advisory Board and Program Committee: FP6 - ToK NANOMAG-LAB: Workshop on Properties of ultrathin magnetic films, Bialowieza, Poland, 7.-9.09.2006
SF2	Tennant, A.	Peer Review College of the EPSRC (Engineering and Physical Sciences Research Council)
SF2	Tennant, A.	Editor of the Journal of Statistical Mechanics: Theory and Experiment
SF2	Tennant, A.	LET Instrument Advisory Board of the Rutherford Appleton Laboratory
SF2	Tennant, A.	ISIS Facility Access Panel
SF3	Abromeit, C.	Symposium Organizer for MRS Fall Meeting 2006, Boston
SF3	Abromeit, C.	Scientific committee for E-MRS-Fall Meeting 2006
SF3	Banhart, J.	Organizing Committee of MetFoam 2007
SF3	Banhart, J.	Assigned Scientific Committee of Iutam Symposium
SF3	Banhart, J.	Arbeitsgemeinschaft Metall- und Materialphysik der DPG
SF3	Banhart, J.	Commission for Editor of Materials Transactions
SF3	Banhart, J.	International Science & Organizing Committee for ICSSP III
SF3	Banhart, J.	Programm committee of Thermec 2006
SF3	Banhart, J.	Programme Committee of the International Conference on Aluminium Alloys 11
SF3	Kardjilov, N.	Board of Directors of International Society for Neutron Radiology

<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	Manke, I.	DGM-Fachausschuss Strahllinien
SF3	Wanderka, N.	International Steering Committee of Field Emission Society
SF3	Wanderka, N.	THERMEC 2006
SF3	Wanderka, N.	Editor Ultramicroscopy Proceedings der Konferenz IFES 2006
SF3	Wiedenmann, A.	Instrumentation advisory board ANSTO/Australia
SF3	Wiedenmann, A.	Advisory committee Instrumentation KAERI
SF3	Wiedenmann, A.	ILL Subcommittee College 7
SF3	Wiedenmann, A.	FRMII Instrument advisory committee
SF3	Wiedenmann, A.	Scientific committee, Paul-Scherrer-Institut (Switzerland)
SF3	Wiedenmann, A.	Organisation committee for Int. Conf. on polarised Neutrons
SF3	Wiedenmann, A.	Scientific council Institut-Laue-Langevin Subcommittee 1, Grenoble, France
SF4	Denker, A.	Centre Européen d'Archaeometrie Liège
SF4	Denker, A.	COST G8 (Non-destructive Testing of Museum Objects)
SF4	Denker, A.	Scientific Committee of the European Cyclotron Progress Meeting
SF4	Denker, A.	Advisory Committee of the International Conference on Particle Induced X-ray Emission
SF4	Denker, A.	IGAS-Beirat
SF4	Fink, D.	Radiation Effects and Defects in Solids
SF4	Homeyer, H.	International Advisory Committee on the TESLA Cyclotron Installation at VINCA, Belgrade
SF4	Homeyer, H.	International Organizing Committee of the International Conference on Cyclotrons and their Application
SF4	Mahnke, H.	Forschung mit Nuklearen Sonden und Ionenstrahlen (KFSI)
SF4	Schiwietz, G.	SHIM
SF4	Schiwietz, G.	ICACS (International Conference on Atomic Collisions in Solids)
SF4	Schiwietz, G.	Editor Konferenzband zur ICACS 22 innerhalb von Nuclear Instruments and Methods, Section B: NIM-B (2007)
SF4	Schiwietz, G.	Editorial Board Journal Nuclear Instruments and Methods, Section B, Beam Interactions with Materials and Atoms
SF4	Sielemann, R.	Member of the Editorial Board of the Journal "Hyperfine Interactions".
SF5	Falcke, M.	SFB 555 "Komplexe nichtlineare Prozesse"
SF5	Falcke, M.	Graduiertenkolleg "Dynamik und Evolution zellulärer und makromolekularer Prozesse"
SF5	Falcke, M.	Prüfungsgremium FU und TU
SF5	Frey, E.	Sonderforschungsbereich Uni Bielefeld
SF5	Frey, E.	Vorsitzender des Arbeitskreises Biologische Physik, Deutsche Physikalische Gesellschaft
SF6	Behne, D.	Scientific Committee of the Conference Series "Nuclear Analytical Methods in the Life Sciences" (NAMLS)
SF6	Kyriakopoulos, A.	International scientific committee of the 8th International Symposium on Metal Ions in Biology and Medicine

<b>Dep.</b>	<b>Name</b>	<b>Committee / Board / Scientific body</b>
SFN1	Lake, B.	NIST reactor panel
SE1	Lips, K.	18th Workshop on Quantum Solar Energy Conversion (Quantsol) March 2006 in Rauris/Österreich
SE1	Lips, K.	ICANS - Intern. Conf. on amorphon and nanocrystalline semiconductors
SE1	Lips, K.	Prüfungskommission der FU Berlin
SE1	Lips, K.	INTAS
SE1	Nickel, N.H.	Alexander-von-Humboldt-Stiftung
SE1	Rech, B.	Ph. D. Award Council in the award committee of the Eindhoven University of Technology
SE1	Rech, B.	Profiseminar "Dünnschicht-PV-Module"
SE1	Rech, B.	Europäische Photovoltaikkonferenz 2006, Dresden
SE1	Rech, B.	Steering Committee ATHLET
SE1	Rech, B.	EuroNorm GmbH (Projekträger des BMWi)
SE2	Ennaoui, A.	Editorial Board, Solar Energy Materials and Solar Cells
SE2	Ennaoui, A.	Scientific Committee, The First International Meeting on : Photochemistry, Photocatalysis, Morocco, Agadir 29-31 March 2006
SE2	Ennaoui, A.	Steering Committee, World Renewable Energy Congress IX and Exhibition, 19-25 August 2006, Florence, Italy
SE2	Lux-Steiner, M.C.	Jury des Innovationspreises Berlin/Brandenburg
SE2	Lux-Steiner, M.C.	EUREC Agency
SE2	Lux-Steiner, M.C.	Eidgenössische Energieforschungskommission CORE in der Schweiz
SE2	Lux-Steiner, M.C.	Wissenschaftlicher Beirat der Sulfurcell Solartechnik GmbH
SE2	Lux-Steiner, M.C.	Direktorium des nationalen Forschungsverbundes Sonnenenergie FVS (Verbund von außeruniversitären Forschungseinrichtungen auf dem Gebiet der regenerativen Energien)
SE2	Lux-Steiner, M.C.	Scientific committee 21 EUPVSEC/Topic Organiser of "CIS, CdTe and ohther (II-VI) Ternary Thin Film Cells"
SE2	Lux-Steiner, M.C.	Committee of the SPIE Meeting
SE2	Lux-Steiner, M.C.	1. Vorsitzende des Vereins Arbeitsgemeinschaft Solare Materialien (ASM)
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 des Forschungszentrums Rossendorf e.V. (FZR)
SE2	Lux-Steiner, M.C.	Hochschulrat der Universität Oldenburg
SE2	Schedel-Niedrig, T.	Eurec Agency
SE2	Siebert, S.	Organisationskomitee "Deutsche Physikerinnentagung Novemer 2006"
SE3	Schock, H.	ICTMC
SE3	Schock, H.	Progress in Photovoltaics
SE3	Schock, H.	WPSEC
SE3	Schock, H.	EMRS
SE5	Lewerenz, H.J.	Department of Energy - "Basic Energy Science"
I	Nielsen, U.	Innovationsförderprogramm der Investitionsbank Berlin

<b>Dep.</b>	<b>Name</b>	<b>Committee / Board / Scientific body</b>
I	Nielsen, U.	Ständige Kommission des Verwaltungsrates des Konrad-Zuse-Zentrums für Informationstechnik Berlin
I	Nielsen, U.	Collaboration Board TESLA des DESY Hamburg
I	Nielsen, U.	Fachbereich Berufsakademie in der FHW Berlin
I	Nielsen, U.	Mitgliederversammlung des DFN Vereins
DE	Sauer, O.	Prüfungsausschuss der Fachrichtung Informatik der Berufsakademie Berlin
DE	Wulf, F.	Conference Committee IEEE NSS/MIC 2008, Dresden, Exhibits Chair
DE	Wulf, F.	Studiengruppe für Elektronische Instrumentierung (SEI)
DE	Wulf, F.	Committee for European Studies on Norms for Electronics (ESONE), XT/TCC
DN	Grzanna, J.	Applied Optics
DN	Ziem, P.	Deutsche Oracle-Anwendergruppe e.V. (DOAG)
WGF	Steiner, M.	Steering Committee, Institut Laue-Langevin (ILL), Grenoble, France
WGF	Steiner, M.	Aufsichtsrat, BESSY GmbH Berlin
WGF	Steiner, M.	Commission on Neutron Scattering of the International Union of Crystallography, USA
WGF	Steiner, M.	DAAD
WGF	Steiner, M.	Innovationsrat des Ministeriums für Wirtschaft und Arbeit des Landes Sachsen-Anhalt

## Organization of Scientific Conferences and Meetings

Dep.	Title	Type	Date
SF1	PNCMI (Polarised Neutrons for Condensed Matter Investigations) Dr. C. Pappas	Conference	25.09.06 - 28.09.06
SF1	PNCMI (Polarised Neutrons for Condensed Matter Investigations) School Dr. K. Habicht	Workshop	19.09.06 - 22.09.06
SF1	WINS2006 (Workshop on Inelastic Neutron Spectrometers) Dr. M. Russina	Workshop	29.09.06 - 30.09.06
SF2	5th Workshop on Orbital Physics and Novel Phenomena in Transition Metal Oxides Dr. D. Argyriou	Workshop	11.10.06 - 12.10.06
SF3	Meeting of European Neutron Radiography Association 2006 The new neutron tomography instrument at HMI (N. Kardjilov, A. Hilger, I. Manke, M. Strobl, W. Treimer, J. Banhart)	Conference	17.03.06
SF4	CERN (ISOLDE) user group on Mn-Mössbauer Spectroscopy Dr. Rainer Sielemann	Meeting	31.10.06 - 05.11.06
SF4	ICACS 2006 Mahnke/Schiwietz/Klaumünzer	Conference	21.07.06 - 26.07.06
SF4	Ionenstrahlphysik und Nanotechnologie Dr. H.-E. Mahnke	Workshop	16.05.06 - 17.05.06
SF6	"Gemeinsame Herbsttagung Metallobiomics" Dr. A. Kyriakopoulos, Prof. Dr. D. Behne, A. Graebert, Dr. D. Alber	Conference	06.12.06 - 07.12.06
SF7	DETNI Meeting Dr. B.Gebauer	Workshop	27.09.06
SE1	Workshop "Zielgruppengerechte Präsentation von Wissenschaft" Dr. Klaus Lips	Workshop	24.01.06
SE2	Deutsche Physikerinnentagung Dr. Susanne Siebentritt	nat. Fachtagung	02.11.06 - 05.11.06
SE2	Erstes DFG-Rundgespräch: Grundlagenforschung in der Photovoltaik Dr. Susanne Siebentritt	Workshop	20.07.06 - 21.07.06
DE	Studiengruppe für Elektronische Instrumentierung, Frühjahrstagung 2006 Dr. Friedrich Wulf	Conference	27.03.06 - 29.03.06
DE	Studiengruppe für Elektronische Instrumentierung, Herbsttagung 2006 Dr. Friedrich Wulf	Conference	18.09.06 - 20.09.06

