

**Book chapters (3)**

**S. Schorr**, C. Stephan, C. A- Kaufmann

*Chalcopyrite thin-film solar cell devices*

in: Neutron Applications in Materials for Energy, ed. by V. K. Petersson and G. J. Kearley, Springer, **2015**

**S. Schorr**

*Crystallographic aspects of  $Cu_2ZnSnS_4$  (CZTS)*

in: Copper Zinc Tin Sulfide-based Thin Film Solar Cells, ed. By Kentaro Ito, Wiley, **2014**

**S. Schorr**, Ch. Stephan, R. Mainz, T. Törndal

*X-ray and neutron diffraction of materials for thin film solar cells*

in: Advanced characterization techniques for thin film solar cells, ed. by D. Abou-Ras, T. Kirchartz, U. Rau, Wiley, **2011**

**Guest editor** of the special issue "Novel thin film materials for photovoltaic applications" in Coatings 4 (1) (2014)

**Publications in scientific journals (peer-review)**, h-Index: 23 (google scholar)

2015 (8)

A. Ritscher, J. Just, O. Dolotko, **S. Schorr**, M. Lerch

*A mechanochemical route to single phase  $Cu_2ZnSnS_4$  powder*

submitted

J. Márquez, M. Neuschitzer, M. Dimitrievska, R. Gunder, S. Haass, M. Werner, Y. E. Romanyuk, **S. Schorr**, N. M. Pearsall and I. Forbes

*Systematic compositional changes and their influence on lattice and optoelectronic properties of  $Cu_2ZnSnSe_4$  kesterite solar cells*

Solar Energy Materials and Solar Cells (2015) accepted

L.-E. Valle-Rios, K. Neldner, G. Gurieva, **S. Schorr**

*Existence of off-stoichiometric single phase kesterite*

Journal of Alloys and Compounds (2015) accepted, doi:10.1016/j.jallcom.2015.09.198

I. V. Bodnar, E. V. Telesh, G. Gurieva, **S. Schorr**

*Transmittance Spectra of the  $Cu_2ZnSnS_4$  thin films*

Journal of Electronic Materials 44 (2015) 3283 - 3287

G. Gurieva, S. Levchenko, V. Kravtsov, E. Irran, A. Nateprov, Y.S. Huang, E. Arushanov, **S. Schorr**

*X-ray diffraction investigation on  $Cu_2ZnSiSe_4$  single and polycrystalline crystals*

Zeitschrift für Kristallographie 230 (2015) 507-511

G. Gurieva, M. Dimitrijevska, A. Perez-Rodriguez, V. Izquierdo-Roca, S. Zander, **S. Schorr**

*Structural characterisation of  $Cu_{2.04}Zn_{0.91}Sn_{1.05}S_{2.08}Se_{1.92}$*

Physica Status Solidi c 12 (2015) 588 – 591, DOI: 10.1002/pssc.201400307

C.S. Schnohr, H. Kämmer, T. Steinbach, M. Gnauck, T. Rissom, C.A. Kaufmann, C. Stephan, **S. Schorr**

*Composition-dependent nanostructure of  $Cu(In,Ga)Se_2$  powders and thin films*

Thin Solid Films 582 (2015) 356-360, doi.org/10.1016/j.tsf.2014.10.078

M. Dimitrievska, G. Gurieva, H. Xie, A. Carrete, A. Cabot, E. Saucedo, A. Pérez-Rodríguez, **S. Schorr**, V. Izquierdo-Roca  
*Raman scattering quantitative analysis of the anion chemical composition in kesterite  $Cu_2ZnSn(S_xSe_{1-x})_4$  solid solutions*  
Journal of Alloys and Compounds 628 (2015) 464 - 470

**2014** (9)

G. Iles, S. Peetermans, **S. Schorr**, E. Lehmann  
*Laue diffraction using scintillator detectors*  
Physics Procedia 69 (2015) 314- 319

M. León, S. Levchenko, R. Serna, I. V. Bodnar, A. Nateprov, M. Guc, G. Gurieva, N. Lopez, J. M. Merino, R. Caballero, **S. Schorr**, A. Perez-Rodriguez and E. Arushanov  
*Spectroscopic ellipsometry study of  $Cu_2ZnSnSe_4$  bulk crystals*  
Applied Physics Letters 105 (2014) 061909

D. M. Berg, M. Arasimowicz, R. Djemour, L. Gütay, S. Siebentritt, **S. Schorr**, X. Fontane, V. Izquierdo-Roca, A. Perez-Rodriguez, P. J. Dale  
*Discrimination and detection limits of secondary phases in  $Cu_2ZnSnS_4$  using X-ray diffraction and Raman spectroscopy*  
Thin Solid Films 569 (2014) 113-123, doi:10.1016/j.tsf.2014.08.028

M. Dimitrievska, H. Xie, A. Fairbrother, X. Fontane, G. Gurieva, E. Saucedo, A. Perez-Rodriguez, **S. Schorr**, and V. Izquierdo-Roca  
*Multiwavelength excitation Raman scattering of  $Cu_2ZnSn(S_xSe_{1-x})_4$  ( $0 < x < 1$ ) polycrystalline thin films: Vibrational properties of sulfoselenide solid solutions*  
Applied Physics Letters 105 (2014) 031913

G. Iles, **S. Schorr**  
*The HZB neutron Laue diffractometer – from E11 to FALCON*  
Neutron News 25 (2) (2014) scientific reviews

L. C. Götz, R. Abart, R. Milke, **S. Schorr**, I. Zizak, R. Dohmen, R. Wirth  
*Growth of magnesio-aluminate spinel in thin film geometry – in-situ monitoring using synchrotron X-ray diffraction and thermodynamic model*  
Physics and Chemistry of Minerals 41 (2014), 681-693  
DOI 10.1007/s00269-014-0682-0

M. Guc, S. Levchenko, L. Dermenji, G. Gurieva, **S. Schorr**, N. Syrbu, E. Arushanov  
*Excitonic and band-band transitions of  $Cu_2ZnSiS_4$  determined from reflectivity spectra*  
Journal of Alloys and Compounds 190 (2014) 44-48

R. Bacewicz, J. Antonowicz, S. Podsiadło, **S. Schorr**  
*Local structure in  $Cu_2ZnSnS_4$  studied by the XAFS method*  
Solid State Communications 177 (2014) 54-56

V. V. Sikolenko, V. V. Efimov, **S. Schorr**, and I. O. Troyanchuk  
*Neutron Diffraction Studies of the Structure of Substituted Complex Cobalt Oxides*  
Physics of the Solid State 56 (1) (2014) 77–80

**2013** (14)

A. Nateprov, V. C. Kravtsov, G. Gurieva and **S. Schorr**

*Single Crystal X-ray Structure Investigation of Cu<sub>2</sub>ZnSnSe<sub>4</sub>*  
Surface Engineering and Applied Electrochemistry 49 (2013) 423-426.

V. Sikolenko, V.V. Efimov, D. Többens, **S. Schorr**, C. Ritter, M.V. Bushinsky, I.O. Troyanchuk  
*Pressure effects on oxygen-deficient Ba-substituted cobaltites*  
Powder Diffraction 9 (2013) 28(S2)  
DOI:10.1017/S0885715613001097

M. Ya Valakh, V. M. Dzaghan, I. S. Babichuk, X. Fontane, A. Perez-Rodriguez, **S. Schorr**  
*Optically Induced Structural Transformation in Disordered Kesterite Cu<sub>2</sub>ZnSnS<sub>4</sub>*  
JETP Letters 98 (2013) 255–258  
doi: 10.1134/S0021364013180136

Korzun B.V., Gavrilenko A.N., Sobol V.R., Matukhin V.L., **Schorr S.**  
*Structural and thermal properties of haycockite Cu<sub>4</sub>Fe<sub>5</sub>S<sub>8</sub>*  
Proceedings of the 1<sup>st</sup> Russian-Belarusian scientific-technical conference “Basic components in domestic electronics” (September 11-14, 2013, Nishnii Novgorod, Russia), Nishnii Novgorod, 2013, Vol. 1, 172-175

S. Eckner, H. Kämmer, T. Steinbach, M. Gnauck, A. Johannes, C. Stephan, **S. Schorr**, and C. S. Schnohr  
*Atomic-scale structure, cation distribution and bandgap bowing in Cu(In,Ga)S<sub>2</sub> and Cu(In,Ga)Se<sub>2</sub>*  
Applied Physics Letters 103 (2013) 081905

Maedows, Helen J., Bhatia, A., Stefan, C., **Schorr, S.**, Scapulla, M.A., Dale, P.  
*Crystallographic study of phases present in CuInSe<sub>2</sub> absorber layers produced by laser annealing co-electrodeposited precursors*  
Proc. SPIE 8823, Thin Film Solar Technology V 8823 , p. 882302

S. Levenco, M. Guc, C. Merschjann, G. Gurieva, **S. Schorr**, M. Lux-Steiner and E. Arushanov  
*Photoluminescence spectra of Cu<sub>2</sub>ZnGeS<sub>4</sub> single crystals*  
Phys. Stat. Sol. C 10 (7-8) (2013) 1079 - 1081  
DOI: 10.1002/pssc.201200843

M. León, S. Levenco, R. Serna, A. Nateprov, G. Gurieva, J. .M. Merino, **S. Schorr**, E. Arushanov  
*Spectroscopic ellipsometry study of Cu<sub>2</sub>ZnGeSe<sub>4</sub> and Cu<sub>2</sub>ZnSiSe<sub>4</sub> poly-crystals*  
Materials Chemistry and Physics 141 (2013) 58-62

G. Gurieva, M. Guc, L. I. Bruk, V. Izquierdo-Roca, A. Pérez Rodríguez, **S. Schorr**, E. Arushanov  
*Cu<sub>2</sub>ZnSnS<sub>4</sub> thin films grown by spray pyrolysis: characterization by Raman spectroscopy and X-ray diffraction*  
Phys. Stat. Sol. C 10 (7-8) (2013)1082-1085

M. Guc, V. Izquierdo-Roca, A. Pérez Rodríguez, G. Gurieva, S. Levenco, **S. Schorr** and E. Arushanov  
*Raman spectra of wurtzstannite quaternary compounds*  
Phys. Stat. Sol. C 10 (7-8) (2013) 1075-1078  
DOI: 10.1002/pssc.201200831.

K. G. Lisunov, M. Guc, S. Levenco, D. Dumcenco, Y. S. Huang, G. Gurieva, **S. Schorr** and E. Arushanov  
*Energy spectrum of near-edge holes and conduction mechanisms in Cu<sub>2</sub>ZnSiSe<sub>4</sub> single crystals*  
Journal of Alloys and Compounds 580 (2013) 481

M. Y. Valakh, O. F. Kolomys, S. S. Ponomaryov, V. O. Yukhymchuk, I. S. Babichuk, V. Izquierdo-Roca, E. Saucedo, A. Perez-Rodriguez, J. R. Morante, **S. Schorr** and I. V. Bodnar

*Raman scattering and disorder effect in  $Cu_2ZnSnS_4$*

Physica Status Solidi RRL 7 (4) (2013) 258–261

DOI: 10.1002/pssr.201307073

G. Gurieva, S. Levenco, **S. Schorr**, M. Leon, R. Serna, A. Nateprov, E. Arushanov

*Characterization of  $Cu_2SnSe_3$  by spectroscopic ellipsometry*

Thin Solid Films (2013) in press

doi:10.1016/j.tsf.2012.11.104

S. Stöber, G. Redhammer, **S. Schorr**, O. Prokhnenko, H. Pöllmann

*Structure refinements of members in the brownmillerite solid solution series*

$Ca_2Al_x(Fe_{0.5}Mn_{0.5})_{2-x}O_{5+\delta}$  with  $\frac{1}{2} \leq x \leq 4/3$

Journal of Solid State Chemistry 197 (2013) 420–428

<http://dx.doi.org/10.1016/j.jssc.2012.08.032>

## 2012 (13)

L. I. Bruc, M. Guc, M. Rusu, D. A. Sherban, A. V. Simashkevich, **S. Schorr**, V. Izquierdo-Roca, A.

Pérez-Rodríguez and E. K. Arushanov

*Kesterite thin films of  $Cu_2ZnSnS_4$  obtained by spray pyrolysis*

EU-PVSEC proceedings (2012) 2763-2766

DOI: 10.4229/27thEUPVSEC2012-3DV.3.7

X. Lin, J. Kavalakkatt, K. Kornhuber, D. Abou-Ras, **S. Schorr**, M. C. Lux-Steiner, A. Ennaoui

*Colloidal Synthesis of  $Cu_2Zn_xSn_ySe_{1+x+2y}$  Nanocrystals with Wurtzite-Derived Structure*

Royal Society of Chemistry Advances 2 (2012) 9894–9898

DOI: 10.1039/c2ra21293e

S. Levenco, V. E. Tezlevan, E. Arushanov, **S. Schorr**, T. Unold

*Free-Bound Luminescence in Near Stoichiometric  $Cu_2ZnSnS_4$  Single Crystals*

Physical Review B 86 (2012) 045206

L. Gütay, D. Regesch, J. K. Larsen, Y. Aida, V. Depredurand, A. Redinger, S. Caneva, **S. Schorr**,  
C. Stephan, J. Vidal, S. Botti, and S. Siebentritt

*Feedback mechanism for the stability of the band gap of  $CuInSe_2$*

Physical Review B 86 (2012) 045216

A. Nateprov, W. C. Kravtsov, W. Moschiaga, **S. Schorr**

*The crystal structure and physical properties of  $YbCuZnSb_2$*

Surface Engineering and Applied Electrochemistry 48 (2012) 375-379

C. Stephan, T. Scherb, C. Kaufmann, **S. Schorr**, H.-W. Schock

*Cationic point defects in  $CuGaSe_2$  from a structural perspective*

Applied Physics Letters 101 (2012) 101907

X. Fontane, V. Izquierdo-Roca, E. Saucedo, **S. Schorr**, V.O. Yukhymchuk, M.Ya. Valakh,

A. Perez-Rodriguez, J.R. Morante

*Vibrational properties of stannite and kesterite type compounds: Raman scattering analysis of  $Cu_2(Fe,Zn)SnS_4$*

Journal of Alloys and Compounds 539 (2012) 190 - 194, DOI: 10.1016/j.jallcom.2012.06.042

C. Schnohr, H. Kämmer, C. Stephan, **S. Schorr**, T. Steinbach, J. Rensberg

*Atomic-scale structure and band-gap bowing in  $Cu(In,Ga)Se_2$*

Physical Review B 85 (24) (2012) 245204, DOI: 10.1103/PhysRevB.85.245204

M. Ende, **S. Schorr**, G. Kloess, A. Franz, M. Tovar

*Shocked quartz in Sahara fulgurite*

European Journal of Mineralogy 24 (3) (2012) 499-507, DOI: 10.1127/0935-1221/2012/0024-2188

**S. Schorr**, R. Mainz, M. Baer, I. Lauermann, H. Mönig

*The complex material properties of chalcopyrite and kesterite thin film solar cell absorbers tackled by synchrotron-based analytics*

Progress in photovoltaics: Research and Applications 20 (2012) 557-567, DOI: 10.1002/pip.1256

S. Siebentritt, **S. Schorr**

*Kesterites - a challenging material for solar cells*

Progress in photovoltaics: Research and Applications 20 (2012) 512-519, DOI: 10.1002/pip.2156

J. Just, D. Lützenkirchen-Hecht, R. Frahm, **S. Schorr**, T. Unold

*Determination of secondary phases in kesterite  $\text{Cu}_2\text{ZnSnS}_4$  thin films by X-ray absorption near edge structure*

Applied Physics Letters 99 (26) (2012) 262105

C. Merschjann, M. Mews, T. Mete, A. Karkatzinou, B. V. Korzun, M. Rusu, P. Schubert-Bischoff, **S. Schorr**, Th. Schedel-Niedrig, M.-Ch. Lux-Steiner

*$\text{AgGaSe}_2$  thin films grown by chemical closed-spaced vapor transport for photovoltaic applications: structural, electrical and optical material properties*

Journal of Physics Condensed Matter 24 (17) (2012) 175801

**2011 (7)**

M. Müller, R. E. Dinnebier, **S. Schorr**

*A case study of parameterized Rietveld refinement: The structural phase transition of  $\text{CuInSe}_2$*   
Zeitschrift für Kristallographie 226 (12) (2011) 956-962, DOI 10.1524/zkri.2011.1407

M. Bär, B.-A. Schubert, B. Marsen, **S. Schorr**, R.G. Wilks, L. Weinhardt, S. Pookpanratana, M. Blum, S. Krause, Y. Zhang, W. Yang, T. Unold, C. Heske, and H.-W. Schock

*The electronic structure of  $\text{Cu}_2\text{ZnSnS}_4$  probed by soft x-ray emission and absorption spectroscopy*  
Physical Review B 84 (2011) 035308

B. Marsen, S. Klemz, G. Landi, L. Steinkopf, R. Scheer, **S. Schorr**, H.-W. Schock

*Evaluation of Impurity-Modified  $\text{CuGaS}_2$  as Thin Film Intermediate Band Absorber Material*  
Thin Solid Films 519 (21) (2011) 7284-7287

**S. Schorr**

*The crystal structure of kesterite type compounds: a neutron and X-ray diffraction study*

Solar Energy Materials and Solar Cells 95 (2011) 1482-1488, invited paper

**S. Schorr**, Ch. Stephan, R. Mainz, M. Tovar

*Neutrons and photons in materials research for thin film solar cells*

Advanced Engineering Materials 13 (5) (2011) 737-741, DOI: 10.1002/adem.201000290

Ch. Stephan, **S. Schorr**, H.-W. Schock, M. Tovar

*Comprehensive insights into point defect and cluster formation in  $\text{CuInSe}_2$*

Applied Physics Letters 98 (2011) 091906

S. Lehmann, D. Fuertes Marrón, M. León, R. Feyerherm, E. Dudzik, E. J. Friedrich, M. Tovar, Y. Tomm, C. Wolf, **S. Schorr**, Th. Schedel-Niedrig, M. Ch. Lux-Steiner and J. M. Merino

*Long-range structure of  $\text{Cu}(\text{In}_x\text{Ga}_{1-x})_3\text{Se}_5$ : A complementary neutron and anomalous X-ray diffraction study*

Journal of Applied Physics 109 (2011) 013518.

B.-A. Schubert, B. Marsen, S. Cinque, Th. Unold, R. Klenk, **S. Schorr**, H.-W. Schock  
*Cu<sub>2</sub>ZnSnS<sub>4</sub> thin film solar cells by fast co-evaporation*  
Progress in Photovoltaics: Research and Applications 19 (2011) 93-96

**2010** (4)

V. S. Rusakov, N. I. Chistyakov, I. A. Burkovsky, A. M. Gapochka, T. L. Evstigneeva, **S. Schorr**  
*Mössbauer study of isomorphous substitutions in Cu<sub>2</sub>Fe<sub>1-x</sub>Cu<sub>x</sub>SnS<sub>4</sub> and Cu<sub>2</sub>Fe<sub>1-x</sub>Zn<sub>x</sub>S<sub>4</sub> series*  
Journal of Physics 217 (2010) 012038

M. León, S. Levchenko, R. Serna, G. Gurieva, A. Nateprov, J. M. Merino, E. J. Friedrich, U. Fillat, **S. Schorr**, and E. Arushanov  
*Optical constants of Cu<sub>2</sub>ZnGeS<sub>4</sub> bulk crystals*  
Journal of Applied Physics 108 (2010) 093502.

V. D. Novruzov, N. M. Fathi, O. Gorur, M. Tomakin, A. I. Bayramov, **S. Schorr**, N. Mamedov  
*CdTe thin film solar cells prepared by a low-temperature deposition method*  
Physica Status Solidi a 207 (2010) 730-733

W. Zalewski, R. Bacewicz, J. Antonowicz, A. Pietnoczka, T. L. Evsigeeva, **S. Schorr**  
*XAFS study of kesterite, kuramite and stannite type alloys*  
Journal of Alloys and Compounds 492 (2010) 35-38.

**2009** (17)

Ch. Stephan, **S. Schorr**, H.-W. Schock  
*New Structural Investigations in the Cu<sub>2</sub>Se(S)-In<sub>2</sub>Se<sub>3</sub>(S) / Cu<sub>2</sub>Se(S)-Ga<sub>2</sub>Se<sub>3</sub>(S) Phase Diagrams, in Thin-Film Compound Semiconductor Photovoltaics — 2009*, edited by A. Yamada, C. Heske, M. Contreras, M. Igalson, S.J.C. Irvine, Mater. Res. Soc. Symp. Proc. 1165 (2009) 1165-M09-08.

A. Weber, R. Mainz, Th. Unold, **S. Schorr**, H.-W. Schock  
*In-situ XRD on formation reactions of Cu<sub>2</sub>ZnSnS<sub>4</sub> thin films*  
Physica Status Solidi c 6 (2009) 1245-1248

R. Caballero, Ch. A. Kaufmann, T. Eisenbarth, T. Unold, **S. Schorr**, R. Hesse, R. Klenk, H.-W. Schock  
*The effect of NaF precursors on low temperature growth of CIGS thin film solar cells on polyimide substrates*  
Physica Status Solidi a 206 (5) (2009) 1049-1053.

R. Hesse, J. R. Kamdoun Kamdoun, R. Caballero, Ch. A. Kaufmann, Ch. Stephan, **S. Schorr**, D. Abou-Ras, T. Unold, H.-W. Schock  
*Structural investigations of copper incorporation into In-Ga-Se precursor layers for Cu(In,Ga)Se<sub>2</sub> thin films*  
Physica Status Solidi 6 (5) (2009) 1249-1252.

S. Lehmann, D. Fuertes Marrón, M. Tovar, Y. Tomm, Ch. Wolf, **S. Schorr**, Th. Schedel-Niedrig, E. Arushanov, M. Christina Lux-Steiner  
*A structural study on the CuGaSe<sub>2</sub>-related copper-poor materials CuGa<sub>3</sub>Se<sub>5</sub> and CuGa<sub>5</sub>Se<sub>8</sub>: thin-film vs. bulk material*  
Physica Status Solidi a 206 (5) (2009) 1009-1012.

P. Pistor, N. Allsop, W. Braun, R. Caballero, C. Camus, Ch.-H. Fischer, M. Gorgoi, A. Grimm, B. Johnson, T. Kropp, I. Laueremann, S. Lehmann, H. Mönig, **S. Schorr**, A. Weber, R. Klenk

*Cu in In<sub>2</sub>S<sub>3</sub>: interdiffusion phenomena analysed by high kinetic energy X-ray photoelectron spectroscopy*

Physica Status Solidi a 206 (5) (2009) 1059-1062.

D. Abou-Ras, G. Kostorz, D. Hariskos, R. Menner, M. Powalla, **S. Schorr**, A.N. Tiwari  
*Structural and chemical analyses of sputtered In<sub>x</sub>S<sub>y</sub> buffer layers in Cu(In,Ga)Se<sub>2</sub> thin-film solar cells*

Thin Solid Films 517 (8) (2009) 2792-2798

M. León, R. Serna, S. Levchenko, G. Gurieva, J. M. Merino, E. J. Friedrich, S. Lehmann, Th. Schedel-Niedrig, **S. Schorr**, M. Ch. Lux-Steiner, E. Arushanov

*Characterisation of Cu(In<sub>1-x</sub>Ga<sub>x</sub>)<sub>5</sub>Se<sub>8</sub> by spectroscopic ellipsometry*

Physica Status Solidi c 6 (2009)1078-1081

**S. Schorr**, G. Gonzalez-Aviles

*In-situ investigation of the structural phase transition in kesterite*

Physica Status Solidi a 206 (5) (2009) 1054-1058.

**S. Schorr**, A. Weber, V. Honkimäki, H.-W. Schock

*In-situ investigation of the kesterite formation from binary and ternary sulphides*

Thin Solid Films 517 (2) (2009) 2461-2464

E. Zaretskaya, V. Gremenok, V. Zalesski, **S. Schorr**, V. Rud, Y. Rud

*Preparation and properties of In/p-Cu(In<sub>1-x</sub>Ga<sub>x</sub>)(S<sub>1-y</sub>Se<sub>y</sub>)<sub>2</sub> surface-barrier structures*

Physica Status Solidi (c) 6 (2009)1278-1281

**S. Schorr**, M. Tovar, H.-J. Hoebler, H.-W. Schock

*Structure and phase relations in the 2(CuInS<sub>2</sub>) - Cu<sub>2</sub>ZnSnS<sub>4</sub> solid solution system*

Thin Solid Films 517 (2) (2009) 2508-2510

N.Mamedov, K. Wakita, G. Orudzhev, Y.G. Shim, K. Mimura, **S. Schorr**, S. Hamidov, K. Kishigui, V. Jafarova, N. Yamamoto

*Debye temperatures and Grueneisen parameters of chain TlSe and TlInSe<sub>2</sub>*

physica status solidi c 6 (2009) 997-1000

A. Weber, H. Krauth, S. Perlt, I. Kötschau, **S. Schorr**, H.-W. Schock

*Multi-stage evaporation of Cu<sub>2</sub>ZnSnS<sub>4</sub> thin films*

Thin Solid Films 517 (2) (2009) 2524-2526

Ch. A. Kaufmann, R. Caballero, T. Unold, R. Hesse **S. Schorr**, M. Nichterwitz, H.-W. Schock  
*Depth profiling of Cu(In, Ga)Se<sub>2</sub> thin films grown at low temperatures*

Sol. Energy Mat. & Sol. Cells 93 (2009) 859-863, doi:10.1016/j.solmat.2008.10.009

**2008** (7)

P. Pistor, R. Caballero, D. Hariskos, V. Izquierdo-Roca, R. Wächter, **S. Schorr**, R. Klenk

*Quality and stability of compound indium sulphide as source material for buffer layers in*

*Cu(In,Ga)Se<sub>2</sub> solar cells*

Sol. Energy Mat. & Sol. Cells 39 (2008) 148-152

G. Orudzhev, V. Jafarova, **S. Schorr**, K. Mimura, K. Wakita, Y. Shim, N. Mamedov, F. Hashimaze

*Phonon spectra of chain TlSe and TlInSe<sub>2</sub>: DFT-based study*

Japanese Journal of Applied Physics 47 (2008) 8193-8199

W. Zalewski, R. Bacewicz, J. Antonowicz, S. Schorr, C. Streek and B. Korzun

*XAFS study of Mn doped CuAlS<sub>2</sub> and CuGaS<sub>2</sub>*

Physica Status Solidi a 205 (2008) 2428-2436

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

*Impact of the Ga concentration in  $\text{CuIn}_{1-x}\text{Ga}_x\text{Se}_2$  solar absorbers on their microstructures*  
Physica Status Solidi RRL 3 (2008) 135-137

Y. Tomm, S. Fiechter, S. Schorr

*Crystal growth of Argyrodite-type phases  $\text{Cu}_8\text{GeS}_6\text{I}_x$  and  $\text{Cu}_8\text{GeSe}_6\text{I}_x$  ( $0 \leq x \leq 0.8$ )*  
Journal of Crystal Growth 310 (2008) 2215-2221

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

*Phonon confinement and strain in  $\text{CuInS}_2$*   
Applied Physics Letters 92 (2008) 101922 (3 pp.)

S. Schorr, D. Sheptyakov

*Low temperature thermal expansion in sphalerite and chalcopyrite type multinary semiconductors*  
Journal of Physics: Condensed Matter 20 (2008) 104245 (5 pp.)

**2007** (9)

D. Abou-Ras, M. Nichterwitz, R. Caballero, C.A. Kaufmann, T. Unold, S. Schorr, R. Scheer, J. Klaer, H.W. Schock

*(enhanced) insight in the microstructure and composition of chalcopyrite-type thin-film solar cells*  
Proc. 22<sup>nd</sup> Europ. Photovolt. Sol. Energy Conf. (2007) 1911-1914

A. Weber, I. Kötschau, S. Schorr, H.-W. Schock

*Formation of  $\text{Cu}_2\text{ZnSnS}_4$  and  $\text{Cu}_2\text{ZnSnS}_4\text{-CuInS}_2$  thin films investigated by in-situ energy dispersive X-ray diffraction*

Mater. Res. Soc. Symp. Proc. 1012 (2007) 1012-Y03-35

D. Abou-Ras, M. Nichterwitz, C. Kaufmann, S. Schorr, H.W. Schock

*Preferred orientation, grain sizes and grain boundaries of chalcopyrite thin films*  
Mater. Res. Soc. Symp. Proc. 1012 (2007) 1012-Y09-03

S. Schorr, G. Wagner, M. Tovar, D. Sheptyakov

*Structure and Microstructure of  $\text{Zn}_{2x}(\text{CuB}^{\text{III}})_{1-x}\text{X}_2$  semiconductors ( $\text{B}^{\text{III}}=\text{Ga,In}$ ;  $\text{X}=\text{S,Se,Te}$ )*  
Mater. Res. Soc. Symp. Proc. 1012 (2007) 1012-Y03-05

D. Abou-Ras, S. Schorr, H.-W. Schock

*Grain-size distributions and grain boundaries of chalcopyrite thin films*  
Journal of Applied Crystallography 40 (2007) 841 - 848

E. P. Zaretskaya, V. F. Gremenok, V. B. Zalesski, K. Bente, S. Schorr, S. Zukotynski

*Properties of  $\text{Cu}(\text{In,Ga})(\text{S,Se})_2$  thin films prepared by selenization/sulfurization of metallic alloys*  
Thin Sol. Films 515 (2007) 5848 – 5851

F. Hergert, R. Hock, S. Schorr

*Pentary chalcopyrite compounds without tetragonal deformation in the heptanary system  $\text{Cu}(\text{Al,Ga,In})(\text{S,Se,Te})_2$*

Sol. Energy Mat. & Sol. Cells 91 (2007) 44 – 46

S. Schorr, H.-J. Höbler, M. Tovar

*A neutron diffraction study of the stannite-kesterite solid solution series*  
European Journal of Mineralogy 19 (2007) 65 – 73

S. Schorr



*Structural aspects of adamantine like multinary chalcogenides*  
Thin Sol. Films 515 (2007) 5985 – 5991

**2006 (11)**

S. Schorr, G. Geandier

*In-situ investigation of the temperature dependent phase transition in  $\text{CuInSe}_2$  by synchrotron radiation*

Journal of Crystal Research and Technology 41 (2006) 450-457

B. V. Korzun, A. A. Fadzeyeva, K. Bente, W. Schmitz, S. Schorr

*Thermal expansion and structural properties of  $(\text{CuAlTe}_2)_{1-x}(\text{CuAlSe}_2)_x$  solid solutions*

Crystal Research and Technology 41 (2006) 168-173

S. Schorr, V. Riede, D. Spemann

*Electronic band gap of  $\text{Zn}_{2x}(\text{CuIn})_{1-x}\text{X}_2$  solid solution series ( $\text{X}=\text{S}, \text{Se}, \text{Te}$ )*

Journal of Alloys and Compounds 414 (2006) 26-30

B. V. Korzun, A. A. Fadzeyeva, A. V. Mudry, S. Schorr

*Growth and optical properties of  $\text{CuAlTe}_2$*

Physica Status Solidi (b) 243 (2006) R57-R59

V. F. Gremenok, S. Schorr, G. Wagner, K. Bente, E. P. Zaretskaya, V. M. Siarheyeva

*Structural properties of  $2(\text{ZnSe})_x(\text{CuInSe}_2)_{1-x}$  crystals and thin films in the two-phase region*

Physica Status Solidi (a) 203 No. 11 (2006) 2644-2647

S. Schorr, R. Höhne, D. Spemann, Th. Döring und B. V. Korzun

*Magnetic properties investigations of Mn substituted  $\text{ABX}_2$  chalcopyrites*

Physica Status Solidi (a) 203 No. 11 (2006) 2783-2787

B. V. Korzun, A. A. Fadzeyeva, A. V. Mudry, S. Schorr

*Optical absorption and photoluminescence of  $\text{CuAlTe}_2$*

Physica Status Solidi (c) 3 No. 8 (2006) 2626- 2629

S. Schorr, G. Wagner, M. Tovar, D. Sheptyakov

*Cation disorder and anion displacement in  $\text{D}^{\text{II}}\text{X}^{\text{VI}} - \text{A}^{\text{I}}\text{B}^{\text{III}}\text{X}^{\text{VI}}_2$  semiconductors*

Physica Status Solidi (c) 3 No. 8 (2006) 2614-2617

S. Schorr, G. Geandier, B. V. Korzun

*Some are different from others: high temperature phase transitions in ternary chalcopyrites*

Physica Status Solidi (c) 3 No. 8 (2006) 2610-2613

A. Pietnoczka, R. Bacewicz, S. Schorr

*Local structure in  $(\text{MnS})_{2x}(\text{CuInS}_2)_{1-x}$  alloys*

Physica Status Solidi (a) 203 No. 11 (2006) 2746-2750

S. Schorr, M. Tovar, N. Stuesser, D. Sheptiakov, G. Geandier

*Where the atoms are: cation disorder and anion displacement in  $\text{D}^{\text{II}}\text{X}^{\text{VI}} - \text{A}^{\text{I}}\text{B}^{\text{III}}\text{X}^{\text{VI}}$  semiconductors*

Physica B 385-386 (2006) 571-573

**2005 (7)**

S. Schorr, G. Wagner

*Structure and phase relations of the  $\text{Zn}_{2x}(\text{CuIn})_{1-x}\text{S}_2$  solid solution series*

Journal of Alloys and Compounds 396 (2005) 202-207

B. V. Korzun, S. Schorr, W. Schmitz, A. A. Fadzeyeva, G. Kommichau, K. Bente  
*Preparation of  $BaBi_{1/2}Sb_{1/2}O_3$  from  $Ba(COO)_2 \cdot 0.5H_2O$  and  $Sb(COO)_2(OH)$  oxalates and  $BiO_3$  oxide*  
Journal of Crystal Growth 277 (2005) 205-209

G. Wagner, F. Fleischer, S. Schorr  
*Extension of the two-phase field in the system  $2(ZnS)_x(CuInS_2)_{1-x}$  and structural relationship between the tetragonal and cubic phase*  
Journal of Crystal Growth 283 (2005) 356-366

S. Schorr, M. Tovar, D. Sheptyakov, L. Keller, G. Geandier  
*Crystal Structure and Cation Distribution in the Solid Solution Series  $2(ZnX)-CuInX_2$  ( $X=S, Se, Te$ )*  
Journal of Physics and Chemistry of Solids 66 (2005) 1961-1965

S. Schorr, R. Höhne, G. Wagner, V. Riede, W. Kockelmann  
*Investigation of the Solid Solution Series  $2(MnX) - CuInX_2$  ( $X=S, Se$ )*  
Journal of Physics and Chemistry of Solids 66 (2005) 1966-1969

G. Wagner, S. Lehmann, S. Schorr  
*The two-phase field in  $2(ZnSe)_x(CuInSe_2)_{1-x}$  and structural relationship between the tetragonal and cubic phase*  
Journal of Solid State Chemistry 178 (2005) 3631-3638

L. Roussak, G. Wagner, S. Schorr, K. Bente  
*Phase relationships in the pseudo-binary  $2(ZnTe) - CuInTe_2$  system*  
Journal of Solid State Chemistry 178 (2005) 3476-3484

#### 2004

S. Schorr, M. Tovar, N. Stüßer, K. Bente  
*Investigation of structural anomaly and metal ordering in the solid solution series  $2ZnS - CuInS_2$  by neutron diffraction*  
Physica B 350 (2004) e411-e414

#### 2000 - 1997

F. Mezei, R. Russina, S. Schorr  
*The Multiwavelength Cold neutron Time-of-Flight Spectrometer Project IN500 at LANSCE*  
Physica B 276-278 (2000) p.128 - 129

S. Schorr, F. Mezei  
*Time-of-Flight Constant- $q$  Spectroscopy*  
Physica B 241-243 (1998) p. 166 - 168

S. Schorr, F. Mezei, C. Guy, J. Stride  
*Monte Carlo Simulation of TOF Single Crystal Spectroscopy*  
Journal of Neutron Research 6 (1997) p. 113 - 123

Th. Keller, F. Mezei, C. Guy, S. Schorr, J. Stride  
*Performance of a Spin Echo Spectrometer at a Long Pulsed Spallation Source*  
Journal of Neutron Research 6 (1997) p. 95 - 102

S. Schorr, P. Vorderwisch, F. Mezei  
*Critical Dynamics of  $EuO$  below the Curie Point*  
Physica B 234-236 (1997) p. 749 - 753