

**VERÖFFENTLICHUNGEN DES
MAX-PLANCK-INSTITUTS FÜR FESTKÖRPERFORSCHUNG
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- Adam, W., K. Peters and M. Renz:* Titanium-catalyzed diastereoselective epoxidations of ene diols and allylic alcohols with β -hydroperoxy alcohols as novel oxygen donors. *J. Org. Chem.* **62**, 3183-3189 (1997).
- Adler, P.:* Electronic state, magnetism, and electrical transport behavior of $\text{Sr}_{3-x}\text{A}_x\text{Fe}_2\text{O}_7$ ($x \leq 0.4$, A=Ba, La). *J. Solid State Chem.* **130**, 129-139 (1997).
- Ahn K., H. Mattausch and A. Simon:* Superconducting layered carbide halide $\text{La}_2\text{C}_2\text{Br}_2$ - matrix effect of its superconductivity. In: Book of Abstracts INOR-249. American Chemical Society, Washington 1997.
- Substitution experiments on superconducting $\text{La}_2\text{C}_2\text{X}_2$ (X=Cl,Br,I). *Z. Anorg. Allg. Chem.* **623**, 619-622 (1997).
- Alex, V., T. Iino and J. Weber:* EL2-induced upconversion luminescence in GaAs. *Mater. Res. Soc. Symp. Proc.* **442**, 411-416 (1997).
- Anane, A., C. Dupas, K. Le Dang, J.P. Renard, P. Veillet, A.M. de Leon Guevara, F. Millot, L. Pinsard, A. Revcolevschi and A.G.M. Jansen:* Conductivity and magnetoresistance of $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ and $\text{La}_{1-x}\text{Sr}_x\text{Mn}_{1-y}\text{Mg}_y\text{O}_3$ single crystals. *J. Magn. Magn. Mater.* **165**, 377-381 (1997).
- Arch, J.K., R. Brendel and J.H. Werner:* Contribution of silicon substrates to the efficiencies of silicon thin layer solar cells. *Sol. Energy Mater. Sol. Cells* **45**, 309-322 (1997).
- Aryasetiawan, F., O. Gunnarsson, E. Koch and R. M. Martin:* Pauli susceptibility of A_3C_{60} (A=K,Rb). *Phys. Rev.* **B55**, R10165-R10168 (1997).
- Awana, V.P.S., Rajvir Singh, D.A. Landinez Tellez, J.M. Ferreira, J. Albino Aguiar, S. Uma, E. Gmelin and A.V. Narlikar:* Superconductivity and magnetic ordering of $\text{PrInCaLa}_{1-x}\text{Pr}_x\text{BaCu}_3\text{O}_7$ system. *Mod. Phys. Lett.* **B11**, 323-331 (1997).
- Awana, V.P.S., D.A. Landinez Tellez, J.M. Ferreira, J. Albino Aguiar, S.K. Malik, A.V. Narlikar, W.B. Yelon, Rajvir Singh, S. Uma and E. Gmelin:* Superconductivity and ordering of Pr in $\text{GaLa}_{1-x}\text{Pr}_x\text{BaCu}_3\text{O}_7$ compound. *Physica* **C282-287**, 807-808 (1997).
- Bala, J. and A.M. Oles:* Mixed valence quasiparticles in the CuO_2 planes. *Acta Phys. Polon.* **A91**, 333-336 (1997).
- Banhart, F. and A. Gutjahr:* Stress relaxation in SiGe layers grown on oxide-patterned Si substrates. *J. Appl. Phys.* **80**, 6228-6233 (1996).
- Banhart, F., A. Gutjahr, I. Silier, G. Cristiani, M. Konuma, E. Bauser and H. Frey:* Electron microscopy of crystalline silicon layers on dissimilar substrates for applications in solar cells. In: Proc. 11th Europ. Congress Electron Microscopy. Dublin 1996, on CD.
- Barentzen, H.:* Analytic theory of the spin bipolaron in the t - J model. *Physica* **C282-287**, 1777-1782 (1997).
- Beck, K., U. Brand, S. Hünig, H.-D. Martin, B. Mayer, K. Peters and H.G. von Schnering:* 1,5-laticyclic conjugation between parallel azo and *o*-phenylene bridges. Structure dependence of [6 + 2] photocycloadditions. *Liebigs Ann.* **1996**, 1881-1892 (1996).
- Beck, U. and A. Simon:* Structure and range of homogeneity of $\text{Na}_2\text{Gd}_4\text{Cl}_9\text{NO}$. *Z. Anorg. Allg. Chem.* **623**, 1011-1016 (1997).

- Beck, U., A. Simon, S. Sirac and N. Brnicevic: Crystal structures of trans-[Ta₆Cl₁₂(OH)₄(H₂O)²].10H₂O and (NMe₄)₂[Ta₆Cl₁₂(OH)₆].²¹H₂O. *Z. Anorg. Allg. Chem.* **623**, 59-64 (1997).
- Belitsky, V., A. Cantarero, M. Cardona, C. Trallero-Giner and S. Pavlov: Feynman diagrams and Fano interference in light scattering from doped semiconductors. *J. Phys. Condens. Matter* **9**, 5965-5976 (1997).
- Berger, J.D., S. Hallstein, O. Lyngnes, W.W. Rühle, G. Khitrova and H.M. Gibbs: Emission dynamics of a magnetoexciton quantum-dot microcavity laser. *Phys. Rev.* **B55**, R4910-R4913 (1997).
- Bergmann, R., R. Brendel, M. Wolf, P. Lölgen, J. Krinke, H. Strunk and J.H. Werner: Growth of polycrystalline silicon films on glass by high-temperature chemical vapour deposition. *Semicond. Sci. Technol.* **12**, 224-227 (1997).
- Bergmann, R. and J. Krinke: Large grained polycrystalline silicon films by solidphase crystallization of phosphorus-doped amorphous silicon. *J. Cryst. Growth* **177**, 191-195 (1997).
- Bergmann, R., G. Oswald, M. Albrecht and V. Gross: Solid-phase crystallized Si films on glass substrates for thin film solar cells. *Solar Energy Materials and Solar Cells* **46**, 147-155 (1997).
- Bernasconi, M., M. Benoit, M. Parrinello, G. Chiarotti, P. Focher and E. Tosatti: Ab-initio simulation of phase transformations under pressure. *Phys. Scr.* **T66**, 98-101 (1996).
- Bernasconi, M., G. Chiarotti, P. Focher, M. Parrinello and E. Tosatti: Solid-state polymerization of acetylene under pressure: ab-initio simulation. *Phys. Rev. Lett.* **78**, 2008-2011 (1997).
- Blick, R., R. Haug, K. von Klitzing and K. Eberl: Millimeter wave spectroscopy on a double quantum dot. *Proc. Int. Conf. Quantum Devices and Circuits*, Eds. K. Ismail et al. World Scientific, Singapore 1997, 77-85.
- Borrmann, H., A.M. Pirani and G.J. Schrobilgen: [2,2,2-Crypt-Na]₂[Cr₂(CO)₁₀]: a chromium(-1) carbonyl structure with a very weakly coordinating cation. *Acta Crystallogr.* **C53**, 19-22 (1997).
 - (K⁺)₂(18-crown-6-K⁺)₂[Sn₂Se₆]⁴⁺.4en: an [Sn₂Se₆]⁴⁺ anion with a short Sn...Sn distance. *Acta Crystallogr.* **C53**, 1004-1006 (1997).
 - [2,2,2-crypt-K]₂[Cr₂(CO)₁₀]: the first dinuclear metal decacarbonyl dianion structure with an eclipsed geometry. *Acta Crystallogr.* **C53**, 1007-1010 (1997).
- Borrmann, H., K. Lutar and B. Zemva: Manganese(II) hexafluoroarsenate: unusually high coordination of manganese(II) in a fluorine environment. *Inorg. Chem.* **36**, 880-882 (1997).
- Bose, S.K., V. Drchal, J. Kudrnovsky, O. Jepsen and O.K. Andersen: Theoretical study of the ordering in Fe-Al alloys based on a density-functional generalized-perturbation method. *Phys. Rev.* **B55**, 8184-8193 (1997).
- Brendel, R., R. Bergmann, P. Lölgen, M. Wolf and J.H. Werner: Ultrathin crystalline silicon solar cells on glass substrates. *Appl. Phys. Lett.* **70**, 390-392 (1997).
- Bringmann, G., W. Saeb, L. Aké Assi, G. Francois, A.S. Sankara Narayanan, K. Peters and E.-M. Peters: Betulinic acid: isolation from *triphyophyllum peltatum* and *ancistrocladus heyneanus*, antimalarial activity, and crystal structure of the benzyl ester. *Planta Medica* **63**, 255-257 (1997).
- Bringmann, G., W. Saeb, K. Peters and E.-M. Peters: The absolute stereostructure of dioncophylline a by anomalous X-ray dispersion of a 5-bromo derivative. *Phytochemistry* **6**, 1283-1285 (1997).
- Bringmann, G., A. Wuzik, O. Schupp, K. Peters and E.-M. Peters: 1,3-Di-*tert*-butyl-6*H*-benzo[b]naphtho[1,2-*d*]pyran-6-thione, a severely helically distorted thionolactone-bridged biaryl. *Z. Naturforsch.* **52b**, 355-358 (1997).

- Brunen, J., T. Strach, J. Zegenhagen and M. Cardona:* Growth of (110)-oriented epitaxial $R\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$ thin films and characterization with Raman spectroscopy. *Physica* **C289**, 177-191 (1997).
- Growth of (110) and (103)/(013) oriented epitaxial $\text{SmBa}_2\text{Cu}_3\text{O}_{7-\delta}$ thin films on SrTiO_3 and characterization with Raman spectroscopy. *Physica* **C282-287**, 599-600 (1997).
- Brunen, J. and J. Zegenhagen:* Investigation of the SrTiO_3 (110) surface by means of LEED, scanning tunneling microscopy and Auger spectroscopy. *Surf. Sci.* **389**, 349-365 (1997).
- Brunner, K., W. Winter and K. Eberl:* $\text{Si}_{1-y}\text{C}_y$ -alloy layers. A novel semiconductor material. *Phys. Bl.* **52**, 1237-1239 (1996).
- Brunner, K., W. Winter, K. Eberl, N.Y. Jin-Phillipp and F. Phillipp:* Fabrication and band alignment of pseudomorphic $\text{Si}_{1-y}\text{C}_y$, $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$ and coupled $\text{Si}_{1-y}\text{C}_y/\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$ quantum well structures on Si substrates. *J. Cryst. Growth* **175/176**, 451-458 (1997).
- Buchholz, V., P. Adler, M. Bäcker, W. Hölle, A. Simon and G. Wegner:* Regeneration and hydroxyl accessibility of cellulose in ultrathin films. *Langmuir* **13**, 3206-3209 (1997).
- Bussmann-Holder, A.:* Competing time scales at the ferroelectric phase transition. *Integrated Ferroelectrics* **16**, 245-253 (1997).
- Particle dynamics in anharmonic potentials. *Ferroelectrics* **194**, 207-218 (1997).
- Preface. *Z. Phys.* **B104**, 593 (1997).
- Electron-phonon-interaction-driven anharmonic mode-mode coupling in ferroelectrics: the origin of acoustic-mode anomalies. *Phys. Rev.* **B56**, 10762-10765 (1997).
- Bussmann-Holder, A. and A.R. Bishop:* Competing length scales in anharmonic lattices: domains, stripes, and discommensurations. *Phys. Rev.* **B56**, 5297-5301 (1997).
- Cooperative polaronic and electronic effects in high-temperature superconductors. *J. Supercond.* **10**, 289-291 (1997).
- Antiferromagnetism and superconductivity. *Philos. Mag.* **B76**, 887-894 (1997).
- Bussmann-Holder, A., A. Bishop, L. Genzel and A. Simon:* Doping dependence of T_c and its related isotope effect in high-temperature superconductors. *Phys. Rev.* **B55**, 11751-11755 (1997).
- Bussmann-Holder, A., L. Genzel, A. Bishop and A. Simon:* The role of apical oxygen in superconducting cuprates. *Philos. Mag.* **B75**, 463-469 (1997).
- Byrne, H., A. Werner and S. Roth:* Electroluminescence and photoluminescence in fullerenes. In: *Organic Electroluminescent Materials and Devices*, Ed. S. Miyata. Gordon & Breach, Amsterdam 1997, 263-288.
- Campion, R.P., K. Horbelt, P.J. King, S.M. Morley, H.-U. Haberman and B. Leibold:* Anisotropic in-plane properties of 10° and (103)/(013) YBCO films. *J. Alloys Compd.* **251**, 161-165 (1997).
- Cardona, M., T. Strohm and Xingjiang Zhou:* Raman scattering by electronic excitations in high T_c superconductors. *Physica* **C282-287**, 222-225 (1997).
- Cardona, M., X. Zhou and T. Strach:* Raman spectroscopy: phonons. In: *Proc. 10th Anniv. HTS Workshop Phys. Mater. Appl.*, Ed. B. Batlogg. World Scientific, Singapore 1996, 72-75.
- Carloni, P., W. Andreoni and M. Parrinello:* Self-assembled peptide nanotubes from first principles. *Phys. Rev. Lett.* **79**, 761-764 (1997).
- Carrillo-Cabrera, W., M. Somer, E.-M. Peters, K. Peters and H. von Schnering:* Crystal structure of sodium strontium arsenide, NaSrAs . *Z. Kristallogr.* **212**, 1-9 (1997).

Chaboussant, G., P.A. Crowell, L.P. Levy, O. Piovesana, A. Madouri and D. Mailly: Experimental phase diagram of $\text{Cu}_2(\text{C}_5\text{H}_{12}\text{N}_2)_2\text{Cl}_4$: a quasi-one-dimensional antiferromagnetic spin-1/2 Heisenberg ladder. *Phys. Rev.* **B55**, 3046-3049 (1997).

Chaboussant, G., M.-H. Julien, Y. Fagot-Revurat, L.P. Levy, C. Berthier, M. Horvatic and O. Piovesana: Identification of nuclear relaxation processes in a gapped quantum magnet: ^1H NMR in the $S = 1/2$ Heisenberg ladder $\text{Cu}_2(\text{C}_5\text{H}_{12}\text{N}_2)_2\text{Cl}_4$. *Phys. Rev. Lett.* **79**, 925-928 (1997).

Christl, M., D. Moigno, E.-M. Peters, K. Peters and H.G. von Schnering: 1-phenyl-1,2-cyclononadiene: preparation and dimerisation. *Liebigs Ann. Recueil* **1997**, 1791-1796 (1997).

Claus, J., I. Denk, M. Leonhardt and J. Maier: Influence of internal reactions on chemical diffusion: application to Fe-doped SrTiO_3 . *Ber. Bunsenges. Phys. Chem.* **101**, 1386-1392 (1997).

Crowell, P.A., A. Madouri, M. Specht, G. Chaboussant, D. Mailly and L.P. Levy: Torsional oscillator magnetometer for high magnetic fields. *Rev. Sci. Instrum.* **67**, 4161-4166 (1996).

Curda, J., W. Carrillo-Cabrera, A. Schmeding, K. Peters, M. Somer and H.G. von Schnering: Tribarium tetrahydro-tetragermanide acetylide, $\text{Ba}_3[\text{Ge}_4][\text{C}_2]$. Synthesis, structure and properties. *Z. Anorg. Allg. Chem.* **623**, 929-936 (1997).

Curioni, A., M. Sprik, W. Andreoni, H. Schiffer, J. Hutter and M. Parrinello: Density functional theory-based molecular dynamics simulation of acid-catalyzed reactions in liquid trioxane. *J. Am. Chem. Soc.* **119**, 7218-7299 (1997).

Curran, S., S. Roth, A.P. Davey, A. Drury and W. Blau: Photoconduction and photovoltaic effects from a conjugated polymer poly-tert-butyl-isothionaphthalene. *Synth. Met.* **83**, 239-243 (1996).

Curran, S., A. Stark-Hauser and S. Roth: Polyacetylene. In: *Handbook of Organic Conductive Molecules and Polymers: Vol. 2. Conductive Polymers: Synthesis and Electrical Properties*, Ed. H.S. Nalwa. Wiley, New York 1997, 1-59.

Dasgupta, I., T. Saha-Dasgupta and Mookerjee: Augmented space recursion method for the calculation of electronic structure of random alloys. In: *Properties of Complex Inorganic Solids*, Eds. F. Gonis et al. Plenum Press, New York 1997, 63-68.

Davydov, D.N., S. Kambe, A.G.M. Jansen, P. Wyder, N. Wilson, G. Lapertot and J. Flouquet: Anisotropic magnetic-field-induced crossover from a pseudogap to a heavy-fermion state in CeNiSn . *Phys. Rev.* **B55**, R7299-R7302 (1997).

Debernardi, A., N. Pyka, A. Göbel, T. Ruf, R. Lauck, S. Kramp and M. Cardona: Lattice dynamics of wurtzite CdS : neutron scattering and ab-initio calculations. *Solid State Commun.* **103**, 297-301 (1997).

Denk, I., F. Noll and J. Maier: In situ profiles of oxygen diffusion in SrTiO_3 : bulk behavior and boundary effects. *J. Am. Ceram. Soc.* **80**, 279-285 (1997).

Dettlaff-Weglikowska, U., W. Hönle, A. Molassioti-Dohms, S. Finkbeiner and J. Weber: Structure and optical properties of the planar silicon compounds polysilane and Wöhler siloxene. *Phys. Rev.* **B56**, 13132-13140 (1997).

Devic, S.D., Z.V. Popovic, A. Breitschwerdt, G. Dhalenne and A. Revcolevschi: Optical energy gap and crystal field excitations in CuGeO_3 . *Phys. Status Solidi* **B203**, 579-584 (1997).

Dilger, M., K. Eberl, R. Haug and K. von Klitzing: Self-organized growth of quantumdot-tunnel barrier systems. *Superlattices and Microstr.* **21**, 533-539 (1997).

- Eberl, K., K. Brunner and W. Winter:* Pseudomorphic $\text{Si}_{1-y}\text{C}_y$ and $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$ alloy layers on Si. *Thin Solid Films* **294**, 98-104 (1996).
- Eberl, K., T. Kaneko and S. Maier:* Atomic layer precise etching with AsBr_3 in molecular beam epitaxy. *Electrochem. Soc. Proc.* **97-21**, 1997, 259-269.
- Eberl, K., A. Kurtenbach, M. Zundel, J.Y. Jin-Phillipp, F. Phillipp, A. Moritz, R. Wirth and A. Hangleiter:* Self-assembling InP quantum dots for red lasers. *J. Cryst. Growth* **175/176**, 702-706 (1997).
- Engelbrecht, F., J. Zeman, G. Wellenhofer, C. Peppermüller, R. Helbig, G. Martinez and U. Rössler:* Hydrostatic pressure coefficient of the indirect gap and fine structure of the valence band of 6H-SiC. *Phys. Rev.* **B56**, 7348-7355 (1997).
- Ernst, G., N.B. Zhitenev, R.J. Haug and K. von Klitzing:* Dynamic excitations of fractional quantum Hall edge channels. *Phys. Rev. Lett.* **79**, 3748-3751 (1997).
- Probing the edge of a 2DEG by time-resolved transport measurements. *Physica* **E1**, 95-100 (1997).
- Eskes, H. and A.M. Oles:* Spectral properties of the large negative-U Hubbard model. *Phys. Rev.* **B55**, 2032-2047 (1997).
- Sum rules in the optical spectra of the attractive Hubbard model. *Physica* **B230-232**, 828-831 (1997).
- Estreicher, G., J. Weber, A. Derecskei-Kovacs and D. Marynick:* Noble-gas-related defects in Si and the origin of the 1018 meV photoluminescence line. *Phys. Rev.* **B55**, 5037-5044 (1997).
- Fagot-Revurat, Y., M. Horvatic, C. Berthier, J.P. Boucher, P. Segransan, G. Dhalenne and A. Revcolevschi:* $^{63,65}\text{Cu}$ NMR investigation of CuGeO_3 single crystals: the uniform and the dimerized spin-Peierls phase. *Phys. Rev.* **B55**, 2964-2974 (1997).
- Faißt, A., J. Wosnitza, H. von Löhneisen, R.K. Kremer and R.W. Henn:* Cu-Isotope effect on the spin-Peierls transition of CuGeO_3 . *Z. Phys.* **B102**, 399-341 (1997).
- Farid, B.:* Self-consistent density-functional approach to the correlated ground states and an unrestricted many-body perturbation theory. *Philos. Mag.* **B76**, 145-192 (1997).
- Correlated ground states with (spontaneously) broken time-reversal symmetry. *Solid State Commun.* **104**, 227-231 (1997).
- Feiertag, G., W. Ehrfeld, H. Freimuth, H. Kollé, H. Lehr and M. Schmidt:* Fabrication of photonic crystals by deep x-ray lithography. *Appl. Phys. Lett.* **71**, 1441-1443 (1997).
- Feiner, L.F., A.M. Oles and J. Zaanen:* Quantum melting of magnetic order due to orbital fluctuations. *Phys. Rev. Lett.* **78**, 2799-2802 (1997).
- Felser, C., S. Cramm, D. Johrendt, A. Mewis, O. Jepsen, G. Hohlneicher, W. Eberhardt and O.K. Andersen:* A new view of valence instabilities in europium compounds: van Hove singularity in EuPdP . *Europhys. Lett.* **40**, 85-91 (1997).
- Fleck, M., A.M. Oles and L. Hedin:* Magnetic phases near the van Hove singularity in *s*- and *d*-band Hubbard model. *Phys. Rev.* **B56**, 3159-3166 (1997).
- Fleig, J., J. Jamnik, J. Maier and J. Ludvig:* Inductive loops in impedance spectroscopy caused by electrical shielding. *J. Electrochem. Soc.* **143**, 3638-3641 (1997).
- Fleig, J. and J. Maier:* Rough electrodes in solid and liquid electrochemistry: impact of morphology on the impedance. *Solid State Ionics* **94**, 199-207 (1996).
- The influence of laterally inhomogeneous contacts on the impedance of solid materials: a three-dimensional finite-element study. *J. Electroceram.* **1**, 1-2(1997).

- The influence of inhomogeneous potential distributions on the electrolyte resistance in solid oxide fuel cells. In: Proc. 5th Int. Symp. on Solid Oxide Fuel Cells, Eds. U. Stimming et al. Proc. Electrochem. Soc. 97-40. Electrochem. Soc., Pennington 1997, 1374-1383.

- Punktkontakte bei Elektrokeramiken. In: Materialwissenschaftliche Grundlagen, Eds. F. Aldinger u. H. Mughrabi. DGM-Informationsges., Frankfurt 1997, 551-556.

Foldeaki, M., W. Schnelle, E. Gmelin, P. Bernard, B. Koszegi, A. Giguere, R. Chahine and T.K. Bose: Comparison of magnetocaloric properties from magnetic and thermal measurements. J. Appl. Phys. **82**, 306-316 (1997).

Forkl, A., C. Joof, R. Warthmann, H. Kronmüller and H.-U. Habermeier: Investigation of the magnetic flux density distribution, current distribution and magnetization curve of Y-Ba-Cu-O thin films. J. Alloys Compd. **251**, 146-149 (1997).

Frank, S., N. Malinowski, F. Tast, M. Heinebrodt, I.M. L. Billas and T.P. Martin: Optical response of cesium coated C₆₀. Z. Phys. **D40**, 250-253 (1997).

- Photoabsorption and ionization energies of nonstoichiometric CsI clusters: metallization of a salt. J. Chem. Phys. **106**, 6217-6221 (1997).

Frank, S., D. Marx and M. Parrinello: Structure and electronic properties of quinizarin chemisorbed on alumina. J. Chem. Phys. **104**, 8143-8150 (1996).

Gehlhoff, L.: 1/N expansions for the U= infinity Hubbard model: comparison between X-operator and slave-boson approach. Phys. Status Solidi **B197**, 421-440 (1997).

Gerhardts, R.R.: Magnetotransport in combined magnetic and electric superlattices. In: Proc. High Magnetic Fields in the Physics of Semiconductors II, Eds. G. Landwehr and W. Ossau. World Scientific, Singapore 1997, 289-298.

Giannini, C., L. Tapfer, M. Sauvage-Simkin, Y. Garreau, N. Jedrecy, M.B. Veron, R. Pinchaux, M. Burghard and S. Roth: Molecular packing in new Langmuir-Blodgett-systems investigated by X-ray specular reflectivity and grazing incidence X-ray diffraction. Thin Solid Films **288**, 272-278 (1996).

Giehler, M., T. Ruf, M. Cardona and K. Ploog: Interference effects in acoustic-phonon Raman scattering from GaAs/AlAs mirror-plane superlattices. Phys. Rev. **B55**, 7124-7129 (1997).

Gliss, B. and P. Dencker: ObjectAda, 007 und Java-Bytecode, oder: Gibt es eine sichere und portable objektorientierte Programmierung? In: Software-Entwicklung - Methoden, Werkzeuge, Erfahrungen '97, Ed. H. J. Scheibl. Techn. Akad. Esslingen, Esslingen 1997, 193-198.

Gmelin, E.: Erfahrungen bei der Zusammenarbeit mit naturwissenschaftlichen Instituten in Indien. In: Die Deutsche Zusammenarbeit mit Südasien. Sechste Heidelberger Südasiengespräche, Eds. G. Berkemer und T. Frasch. Franz Steiner Verlag, Stuttgart 1997, 31-48.

- Classical temperature-modulated calorimetry: a review. Thermochim. Acta **3281**, 1-27 (1997).

Gmelin, E., S.M. Sarge, G.W.H. Höhne, H.K. Cammenga, W. Eysel and W.F. Hemminger: Metrologically based procedures for the calibration of differential scanning calorimeters. Natas Notes **29**, 14-17 (1997).

Göbel, A., T. Ruf, Cheng-Tian Lin, M. Cardona, J.-C. Merle and M. Joucla: Effects of isotopic composition on the lattice dynamics of CuCl. Phys. Rev. **B56**, 210-220 (1997).

Gödecker, S. and C. Umrigar: Critical assessment of the self-interaction-corrected-local-density- functional method and its algorithmic implementation. Phys. Rev. **A55**, 1765-1771 (1997).

- Goll, G., L. Nguyen, E. Steep, A. Jansen, P. Wyder and K. Winzer: Magnetoquantum oscillations in the normal and superconducting state of $\text{YNi}_2\text{B}_2\text{C}$. *Physica* **B230-232**, 868-871 (1996).
- Gordon, A., M.A. Itskovsky and P. Wyder: Specific heat jump in metals under quantizing magnetic fields. *J. Phys. Soc. Jpn.* **66**, 136-138 (1997).
- Gravier, L., M. Potemski, A. Fischer and K. Ploog: Magneto-optical transitions in the presence of a two-dimensional hole gas. *Solid State Electron.* **40**, 697-699 (1996).
- Greedan, J.E., N.P. Raju, A. Maignan, Ch. Simon, J.S. Pedersen, A.M. Niraimathi, E. Gmelin and M.A. Subramanian: Frustrated pyrochlore oxides, $\text{Y}_2\text{Mn}_2\text{O}_7$, $\text{Ho}_2\text{Mn}_2\text{O}_7$ and $\text{Yb}_2\text{Mn}_2\text{O}_7$: Bulk magnetism and magnetic microstructure. *Phys. Rev.* **B54**, 7189-7198 (1996).
- Griesbeck, A.G., A. Henz, W. Kramer, J. Lex, F. Nerowski, M. Oelgemöller, K. Peters and E.-M. Peters: 70. Synthesis of medium- and large-ring compounds initiated by photochemical decarboxylation of ω -phthalimidoalkanoates. *Helv. Chim. Acta* **80**, 912-933 (1997).
- Grin, Y., H. Müller-Buschbaum and H.G. von Schnering: " BaNb_3O_6 " is a perovskite BaNbO_3 , a correction and a contribution to Ba_xNbO_3 . *Z. Naturforsch.* **B52**, 153-156 (1997).
- Grin, Y., K. Peters, U. Burkhardt, K. Gotzmann and M. Ellner: The crystal structure of the binary iridium-aluminum $\text{IrAl}_{2.75}$ and rhodium-aluminum $\text{RhAl}_{2.63}$ phase. *Z. Kristallogr.* **212**, 439-444 (1997).
- Grin, Y., K. Peters and H.G. von Schnering: Refinement of crystal structure of palladium pentagallide, PdGa_5 . *Z. Kristallogr.* **212**, 6 (1997).
- Grin, Y., U. Wedig, F. Wagner, H.G. von Schnering and A. Savin: The analysis of "empty space" in the PdGa_5 structure. *J. Alloys Compd.* **255**, 203-208 (1997).
- Groma, G.I., J. Hebling, C. Ludwig and J. Kuhl: Early light-induced charge displacement processes in bacteriorhodopsin. In: *Ultrafast Processes in Spectroscopy*, Eds. O. Svelto et al. Plenum Press, New York 1996, 535-537.
- Gudmundsson, V. and R.R. Gerhardt: Is the Hofstadter energy spectrum observable in far-infrared absorption? In: *Proc. High Magnetic Fields in the Physics of Semiconductors II*, Eds. G. Landwehr and W. Ossau. World Scientific, Singapore 1997, 335-338.
- Guizzetti, G., F. Marabelli, M. Patrini, P. Pellegrino, B. Pivac, L. Miglio, V. Meregalli, H. Lange, W. Henrion and V. Tomm: Measurement and simulation of anisotropy in the infrared and Raman spectra of β - FeSi_2 single crystals. *Phys. Rev.* **B55**, 14290-14297 (1997).
- Gulden, Th., R.W. Henn, O. Jepsen, R.K. Kremer, W. Schnelle, A. Simon and C. Felser: Electronic properties of the yttriumdicarbide superconductors YC_2 , $\text{Y}_{1-x}\text{Th}_x\text{C}_2$, $\text{Y}_{1-x}\text{Ca}_x\text{C}_2$ ($0 < x \leq 0.3$). *Phys. Rev.* **B56**, 9021-9029 (1997).
- Gunnarsson, O.: Electron self-energy in A_3C_{60} (A=K, Rb): effects of t1u plasmons in the GW approximation. *J. Phys. Condens. Matter* **9**, 5635-5641 (1997).
- Superconductivity in fullerides. *Rev. Mod. Phys.* **69**, 575-606 (1997).
 - Hubbard model with orbital degeneracy and integer or noninteger filling. *Z. Phys.* **B104**, 279-287 (1997).
- Gunnarsson, O. and E. Koch: Discrete Hubbard-Stratonovich transformations for systems with orbital degeneracy. *Phys. Lett.* **A235**, 530-534 (1997).
- Gunnarsson, O., E. Koch and R. Martin: Mott-Hubbard insulators for systems with orbital degeneracy. *Phys. Rev.* **B56**, 1146-1152 (1997).

- Haage, T., H.-U. Habermeier and J. Zegenhagen:* Periodic step structure of clean and $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ -covered vicinal $\text{SrTiO}_3(001)$ surfaces. *Surf. Sci.* **370**, L158-L162 (1997).
- Periodic step structure of clean and $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ -covered vicinal $\text{SrTiO}_3(001)$ surfaces. *Surf. Sci.* **370**, L158-L162 (1997).
- Haage, T., J. Zegenhagen, M. Cardona and H.-U. Habermeier:* Substrate-mediated control of the microstructure of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ thin films. *J. Alloys Compd.* **251**, 23-26 (1997).
- Haage, T., J. Zegenhagen, Ch. Jooss, R. Warthmann, J.Q. Li, H.-U. Habermeier and M. Cardona:* Nanoscale engineering: tailored transport properties by self-organization in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ thin films. *Physica* **C282-287**, 557-558 (1997).
- Haage, T., J. Zegenhagen, J.Q. Li, H.-U. Habermeier, M. Cardona, Ch. Jooss, R. Warthmann, A. Forkl and H. Kronmüller:* Transport properties and flux pinning by self-organization in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ films on vicinal $\text{SrTiO}_3(001)$. *Phys. Rev.* **B56**, 8404-8418 (1997).
- Haase, F., J. Sauer and J. Hutter:* Ab-initio molecular dynamics simulation of methanol absorbed in chabazite. *Chem. Phys. Lett.* **266**, 397-402 (1997).
- Habermeier, H.-U.:* Thin films, nonelectronic properties. In: *Encyclopedia Appl. Phys.*, Vol. 21. Wiley-VCH, Weinheim 1997, 387-407.
- Habermeier, H.-U., T. Haage, J.Q. Li, J. Zegenhagen and A. Forkl:* Growth-induced in plane anisotropy of flux-line pinning in $\text{YBa}_2\text{Cu}_3\text{O}_7$ thin films. *Physica* **C282-287**, 675-676 (1997).
- Habermeier, H.-U. and M.L. Hitchman:* High temperature superconductor thin films: growth mechanisms - interfaces - multilayers. *Proc. Symp. F on High Temperature Superconductor Thin Films: Growth Mechanisms - Interfaces - Multilayers*, Eds. H.-U. Habermeier and M.L. Hitchman. Elsevier, Lausanne 1996, 380 S.
- Habermeier, H.-U., P.X. Zhang, T. Haage and J.Q. Li:* T_c reduction and related phases at early stages of $\text{YBaCuO}_{7-\delta}$ film growth on LaSrAlO_4 . *Physica* **C282-287**, 661-662 (1997).
- Hadjiev, V.G., M. Cardona, I. Ivanov, V. Popov, M. Gyulmezov, M.N. Iliev and M. Berkowski:* Optical phonons probe of the SrLaAlO_4 crystal structure. *J. Alloys Compd.* **251**, 7-10 (1997).
- Hadjiev, V.G., P.M. Rafailov, H. Jantoljak, C. Thomsen and M.K. Kelly:* Influence of the crystal field on the Raman intensity of C_{60} fullerites. *Phys. Rev.* **B56**, 2495-2500 (1997).
- Haiber, M., P. Ballone and M. Parrinello:* Structure and dynamics of protonated Mg_2SiO_4 : An ab-initio molecular dynamics study. *Amer. Mineral.* **82**, 913-922 (1997).
- Haile, S.M., B.J. Wünsch, R.A. Laudise and J. Maier:* Structure of $\text{Na}_3\text{NdSi}_6\text{O}_{15}\cdot 2\text{H}_2\text{O}$ - a layered silicate with paths for possible fast-ion conduction. *Acta Crystallogr.* **B53**, 7-17 (1997).
- Hallstein, S., J.D. Berger, M. Hilpert, H.C. Schneider, W.W. Rühle, F. Jahnke, S.W. Koch, H.M. Gibbs, G. Khitrova and M. Oestreich:* Manifestation of coherent spin precession in stimulated semiconductor emission dynamics. *Phys. Rev.* **B56**, R7076-R7079 (1997).
- Hancotte, H., R. Deltour, D.N. Davydov, A.G.M. Jansen and P. Wyder:* Superconducting order parameter in partially substituted $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$ single crystals as measured by the tunneling effect. *Phys. Rev.* **B55**, 3410-3415 (1997).
- Hartmann, C., G. Martinez, A. Fischer, W. Braun and K. Ploog:* Polarization studies of the two-dimensional electron-bound hole luminescence. *Solid State Commun.* **103**, 91-95 (1997).

- Häusler, K., F. Noll and K. Eberl:* Ordering of nanoscale InP islands on strain-modulated InGaP buffer layers. *Solid State Electron.* **40**, 803-806 (1996).
- Haug, R.J., M. Dilger, T. Schmidt, R.H. Blick, K. von Klitzing and K. Eberl:* Single-electron transistors with quantum dots. *Physica* **B227**, 82-86 (1996).
- He, T., K. Kreuer, Y. Baikov and J. Maier:* Impedance spectroscopic study of thermodynamics and kinetics of a Gd-doped BaCeO₃ single crystal. *Solid State Ionics* **95**, 301-308 (1997).
- On the transport properties of a proton conducting Ca-doped Ba₃(CaNb₂)O₉ single crystal. In: Proc. 5th Int. Symp. on Solid Oxide Fuel Cells, Eds. U. Stimming et al. Proc. Electrochem. Soc. 97-40. Electrochem. Soc., Pennington 1997, 1057-1065.
- Hebling, J., H. Giessen, S. Linden and J. Kuhl:* Mirror-dispersion-compensated femtosecond optical parametric oscillator. *Optics Commun.* **141**, 229-236 (1997).
- Hebling, J., E.J. Mayer, J. Kuhl and R. Szipöcs:* Optical parametric oscillator with chirped mirrors for dispersion compensation. In: *Ultrafast Processes in Spectroscopy*, Eds. O. Svelto et al. Plenum Press, New York 1996, 373-376.
- Heinebrodt, M., S. Frank, N. Malinowski, F. Tast, I.M.L. Billas and T.P. Martin:* Fission of multiply charged alkaline earth metal clusters. *Z. Phys.* **D40**, 334-337 (1997).
- Henn, R., T. Strach, E. Schönherr and M. Cardona:* Isotope effects on the optical phonons of YBa₂Cu₃O₇: eigenvector and infrared charge determination. *Phys. Rev.* **B55**, 3285-3296 (1997).
- Henn, R., A. Wittlin, M. Cardona and S. Uchida:* Dynamics of the c-polarized infrared active modes in La_{2-x}Sr_xCuO₄. *Phys. Rev.* **B56**, 6295-6301 (1997).
- Hönle, W., Y. Grin, A. Burkhardt, U. Wedig, M. Schultheiss, H.G. von Schnering, R. Keller and H. Binder:* Syntheses. Crystal structures and electronic structure of the boron halides B₉X₉ (X = Cl, Br, I). *J. Solid State Chem.* **133**, 59-67 (1997).
- Holm, B. and F. Aryasetiawan:* Self-consistent cumulant expansion for the electron gas. *Phys. Rev.* **B56**, 12825-12831 (1997).
- Holzinger, M., J. Maier and W. Sitte:* Potentiometric detection of complex gases: Application to CO₂. *Solid State Ionics* **94**, 217-225 (1996).
- Hosmane, N.S., Ying Wang, Hongming Zhang, K.J. Lu, J.A. Maguire, Th.G. Gray, K. Brooks, E. Waldhör, W. Kaim and R.K. Kremer:* Chemistry of C-Trimethylsilyl-substituted heterocarboranes. *Organometallics* **16**, 1365-1368 (1997).
- Hsu, L., S. Zehender, E. Bauser and E.E. Haller:* Pressure-induced shallow donor transformations in gallium arsenide. *Phys. Rev.* **B55**, 10515-10518 (1997).
- Huant, S., A. Mandray, G. Martinez and B. Etienne:* DX centers versus shallow D- centers in Al_yGa_{1-y}As-based quantum wells. *Semicond. Sci. Technol.* **12**, 813-819 (1997).
- Hübner, M., J. Kuhl, T. Stroucken, A. Knorr, P. Thomas, S.W. Koch, R. Hey and K. Ploog:* Exciton/exciton coupling in multiple quantum well bragg structures. In: *Ultrafast Processes in Spectroscopy*, Eds. O. Svelto et al. Plenum Press, New York 1996, 225-228.
- Hünig, S., U. Brand, K. Peters, F. Prokschy and H.G. von Schnering:* Tuning the addition of thiols to parallel C=C/N=N bonds from transannular to normal addition. *Liebigs Ann. Recueil* **1997**, 785-789 (1997).

Iliev, M.N., H.-U. Habermeier, M. Cardona, V.G. Hadjiev and R. Gajic: Transformations of the local structure of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ due to laser annealing. *Physica* **C279**, 63-69 (1997).

Iliev, M.N., P.X. Zhang, H.-U. Habermeier and M. Cardona: Raman spectroscopy as analytical tool for the local structure of $\text{YBa}_2\text{Cu}_3\text{O}_x$ thin films. *J. Alloys Compd.* **251**, 99-102 (1997).

Jamnik, J. and J. Maier: Charge transport and chemical diffusion involving boundaries. *Solid State Ionics* **94**, 189-198 (1996).

- Transport across boundary layers in ionic crystals. Pt. I. General formalism and conception. *Ber. Bunsenges. Phys. Chem.* **101**, 23-40 (1997).

Jandl, S., T. Strach, T. Ruf, M. Cardona, V. Nekvasil, M. Iliev, D.I. Zhigunov, S.N. Barilo and S.V. Shiryayev: Raman study of crystal-field excitations in Pr_2CuO_4 . *Phys. Rev.* **B56**, 5049-5051 (1997).

Jaschinski, O., J. Schoenes, G. Nachtwei, P. Bönsch and A. Schlachetzki: Magnetic field induced 3D-2D transition in InGaAs/InP -superlattices. In: *Proc. High Magnetic Fields in the Physics of Semiconductors II*, Eds. G. Landwehr and W. Ossau. World Scientific, Singapore 1997, 351-354.

Jeitschko, P.O., Hj. Mattausch und A. Simon: Hochauflösende Elektronenmikroskopie an Yttriumiodidcarbidoxiden. *Z. Anorg. Allg. Chem.* **623**, 1815-1820 (1997).

Jeitschko, P.O., A. Simon, R. Ramlau and Hj. Mattausch: A transfer system for the investigation of air sensitive samples by high-resolution TEM. *Eur. Microsc. Anal.* **46**, 21 (1997).

- Chemical intergrowth in gadolinium carbide chloride - a HRTEM study. *Z. Anorg. Allg. Chem.* **623**, 1447-1454 (1997).

Jiang, Q.D., X.Q. Pan and J. Zegenhagen: Atomic-scale structure of a SrTiO_3 bicrystal boundary studied by scanning tunneling microscopy. *Phys. Rev.* **B56**, 6947-6951 (1997).

Johrendt, D., C. Felser, O. Jepsen, O.K. Andersen, A. Mewis and J. Rouxel: LMTO band structure calculations of ThCr_2Si_2 -Type transition metal compound. *J. Solid State Chem.* **130**, 254-265 (1997).

Jones, R.O., A.I. Lichtenstein and J. Hutter: Density functional study of structure and bonding in lithium clusters Li_n and their oxides Li_nO . *J. Chem. Phys.* **106**, 4566-4574 (1997).

Jooss, Ch., A. Forkl, R. Warthmann, H.-U. Habermeier, B. Leibold and H. Kronmüller: Thickness and roughness dependence of magnetic flux penetration and critical current densities in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ thin films. *Physica* **C266**, 235-252 (1996).

Jooss, Ch., R. Warthmann, A. Forkl, T. Haage, J. Zegenhagen, H.-U. Habermeier and H. Kronmüller: Anisotropic flux penetration and current distribution in (001) tilted $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ thin films. *Physica* **C282-287**, 2311-2312 (1997).

Jost, R., J. Nygard, A. Pasinski and A. Delon: Magnetic field control of the NO_2 photodissociation threshold. *Phys. Rev. Lett.* **78**, 3093-3096 (1997).

Julien, M.-H., M. Horvatic, C. Berthier and P. Segransan: 63Cu NMR in the normal state of $\text{HgBa}_2\text{Ca}_2\text{Cu}_3\text{O}_{8+\delta}$. *J. Low Temp. Phys.* **105**, 371-376 (1996).

Kamata, T., S. Curran, S. Roth, T. Fukaya, H. Matsuda and F. Mizukami: Third-order nonlinear optical properties of evaporated thin films of platinum-alkyldionedioxime complexes: effects of metal-metal distance. *Synth. Met.* **83**, 267-271 (1996).

Kappe, C.O., K. Peters and E.-M. Peters: Dipolar cycloaddition reactions of dihydropyrimidine-fused mesomeric betaines. An approach toward conformationally restricted dihydropyrimidine derivatives. *J. Org. Chem.* **62**, 3109-3118 (1997).

Katterloher, R., G. Jakob, E. Bauser, S. Zehender, E.E. Haller, J. Beeman, Th. Henning and G. Pilbratt: The GaAs photoconductor-characteristics of LPE grown sample detectors. In: Proc. 30th ESLAB Symp. on Submillimetre and Far-Infrared Space, Ed. E.J. Rolfe. ESA Publ. Div., Noordwijk 1996, 33-36.

Kaupp, M., O. Malkina and V. Malkin: Interpretation of ^{13}C NMR chemical shifts in alomethyl cations. On the importance of spin-orbit coupling and electron correlation. *Chem. Phys. Lett.* **265**, 55-59 (1997).
- The calculation of ^{17}O chemical shielding in transition metal oxo complexes. I. Comparison of DFT and ab-initio approaches, and mechanisms of relativity-induced shielding. *J. Chem. Phys.* **106**, 9201-9212 (1997).

Kazimirov, A., T. Haage, L. Ortega, A. Stierle, F. Comin and J. Zegenhagen: Excitation of an X-ray standing wave in a $\text{SmBa}_2\text{Cu}_3\text{O}_{7-\delta}$ thin film. *Solid State Commun.* **104**, 347-350 (1997).

Khaliullin, G. and P. Horsch: Density fluctuations and phonon renormalization in the t - J model. *Physica* **C282-287**, 1751-1752 (1997).

Kircher, J., R. Henn, M. Cardona, P. Richards and G. Williams: Far-infrared ellipsometry using synchrotron radiation. *J. Opt. Soc. Am.* **B14**, 705-712 (1997).

Köbler, U., J. Schweizer, P. Chieux, Th. Lorenz, B. Büchner, W. Schnelle, F. Deloie and W. Zinn: Evidence for biquadratic exchange interactions in $\text{GdAg}_{1-x}\text{Zn}_x$. *J. Magn. Magn. Mater.* **170**, 110-128 (1997).

Köhler, J. and J.-H. Chang: About the new mixed valent Ge_7F_{16} : $[\text{GeF}_6]^{2-}$ octahedra between $[\text{Ge}_6\text{F}_{10}]^{2+}$ sheets - a contribution to the stereochemical activity of lone pairs. *Z. Anorg. Allg. Chem.* **623**, 596-602 (1997).

Kranzlbinder, G., H.J. Byrne, S. Hallstein, S. Roth, G. Leising and U. Scherf: Picosecond spectroscopy and hyperlinear photoluminescence in poly(*para*-phenylene)-type ladder polymers. *Phys. Rev.* **B56**, 1632-1636 (1997).

Kraus, E., K. Bärner, K. Heinemann, T. Kanomata, I.V. Medvedeva, P. Mandal and E. Gmelin: Some thermal properties of amorphous $(\text{Fe}_{100-x}\text{Mn}_x)_{75}\text{P}_{15}\text{C}_{10}$ ribbons. *Phys. Status Solidi* **157**, 449-452 (1996).

Kreuer, K.D.: Fast proton conductivity: a phenomenon between the solid and the liquid state? *Solid State Ionics* **94**, 55-62 (1996).

- On the development of proton conducting materials for technological applications. *Solid State Ionics* **97**, 1-15 (1997).

Kreuer, K.D., W. Münch, M. Ise, T. He, A. Fuchs, U. Traub and J. Maier: Defect interactions in proton conducting perovskite-type oxides. *Ber. Bunsenges. Phys. Chem.* **101**, 1344-1350 (1997).

Kucera, J., P. Streda and R.R. Gerhardt: Semiclassical magnetotransport theory for two-dimensional electron systems in lateral superlattices. *Phys. Rev.* **B55**, 14439-14449 (1997).

Kühnle, J., R. Bergmann and J.H. Werner: Role of critical size of nuclei for liquid-phase epitaxy on polycrystalline Si films. *J. Cryst. Growth* **173**, 62-68 (1997).

Kuhl, J., M. Hübner, T. Stroucken, B. Grote, A. Knorr, S.W. Koch, R. Hey and K. Ploog: Excitation- and disorder-induced reduction of the superradiant excitonic decay in GaAs quantum well bragg structures. In: *Quantum Optoelectronics 9*, OSA Techn. Digest Ser. OSA, Washington 1997, 18-20.

- Coherent dynamics of excitons in single and multiple quantum well structures. In: Proc. CLEO/Pacific Rim Conf. on Lasers and Electro-Optics. IEEE, Piscataway 1997, 152.

Kuhl, J., E.J. Mayer, M. Hübner, G.O. Smith, K. Bott, V. Heuckeroth, D. Bennhardt, S.W. Koch and P. Thomas: Influence of many-body effects on the quantum coherence of 2D excitons in GaAs quantum wells. In: Ultrafast Processes in Spectroscopy, Eds. O. Svelto et al. Plenum Press, New York 1996, 221-224.

Kukushkin, I.V., V.I. Falko, R.J. Haug, K. von Klitzing and K. Eberl: Time-resolved magneto-luminescence and finite-wave-vector Raman spectroscopy of 2D-electrons in extreme quantum limit. In: Proc. High Magnetic Fields in the Physics of Semiconductors II, Eds. G. Landwehr and W. Ossau. World Scientific, Singapore 1997, 573-592.

Kukushkin, I.V., K. von Klitzing and K. Eberl: Spin polarization of two-dimensional electrons in different fractional states and around filling factor $\nu=1$. Phys. Rev. **B55**, 10607-10612 (1997).

Kukushkin, I.V., D. Weiss, G. Lütjering, R. Bergmann, H. Schweizer, K. von Klitzing, K. Eberl, P. Rotter, M. Suhrke and U. Rössler: Manifestation of commensurate orbits in the magnetoluminescence spectrum of electrons in antidot arrays. Phys. Rev. Lett. **79**, 1722-1725 (1997).

Kulic, M.L. and R. Zeyher: Novel $1/n$ expansion for self-energy and correlation functions of the Hubbard model. Mod. Phys. Lett. **B11**, 333-338 (1997).

Lacroix, C., B. Canals and M.D. Nuñez-Regueiro: Magnetic and electronic properties of the kagomé-like $\text{RCuO}_{2.66}$ compounds. Physica **B230-232**, 500-502 (1997).

Lacroix, C., B. Canals, M.D. Nuñez-Regueiro, B. Coqblin and J. Arispe: Frustration in itinerant antiferromagnets. Physica **B230-232**, 529-534 (1997).

Lang, I.G., V.I. Belitsky, A. Cantarero, L.I. Korovin, S.T. Pavlov and M. Cardona: Triple magnetopolarons in quantum wells. Phys. Rev. **B56**, 6880-6888 (1997).

Lausmann, G.: Electrolytically deposited hardchrome. Surf. Coat. Technol. **86-87**, 814-820 (1996).

Lebihen, T., A. Filoramo, E. Deleporte, J. Martinez-Pastor, Ph. Roussignol, C. Delalande, M. Zigone and G. Martinez: Dynamics of bound excitons in a ZnSe/(Zn,Mn)Se quantum-well heterostructure. Phys. Rev. **B55**, 9915-9917 (1997).

Lee, J.D. and B.I. Min: Charge ordering in doped manganese oxides: lattice dynamics and magnetic structure. Phys. Rev. **B55**, R14713-R14716 (1997).

Liebe, J., H. Kang, L. Haupt, P. Mandal, I.V. Medvedeva, K. Bärner, A. Poddar and E. Gmelin: Heat diffusivity of $\text{Nd}_{1-x}\text{Sr}_x\text{MnO}_{3.8}$ compounds. Physica **B239**, 322-327 (1997).

Lin, C.T., E. Schönherr and K. Peters: Growth rate estimation of $\text{Ln}_{2-x}\text{R}_x\text{CuO}_4$ single crystals formed in solution. Physica **C282-287**, 491-492 (1997).

Lippert, G., J. Hutter and M. Parrinello: A hybrid Gaussian and plane wave density functional scheme. Mol. Phys. **92**, 477-487 (1997).

Liu Kun, C. Johnston, J.H. Chu, S. Roth, Bo Zhang and M. Wan: Measurement of doping concentration in boron-doped diamond film from capacitance spectroscopy. J. Appl. Phys. **82**, 286-290 (1997).

Liu Kun, Bo Zhang, Mingfang Wan, J.H. Chu, C. Johnston and S. Roth: Measurements of electron affinity in boron-doped diamond from capacitance spectroscopy. Appl. Phys. Lett. **70**, 2891-2893 (1997).

Llanos, J., D. Rojas, C. Mujica, K. Peters, E.-M. Peters and H.G. von Schnering: Crystal structure of hexastrontium dodecacopper tridecairon heptacosasulfide, $\text{Sr}_6\text{Cu}_{12}\text{Fe}_{13}\text{S}_{27}$. Z. Kristallogr. **212**, 296 (1997).

- Loosdrecht van, P.H.M., J. Boucher, S. Huant, G. Martinez, G. Dhalenne and A. Revcolevschi:* Spins and phonons in the spin-Peierls compound CuGeO_3 . *Physica* **B230-232**, 1017-1020 (1996).
- Loosdrecht van, P.H.M., J. Zeman, G. Martinez, G. Dhalenne and A. Revcolevschi:* Magnetic interactions and the pressure phase diagram of CuGeO_3 . *Phys. Rev. Lett.* **78**, 487-490 (1997).
- Ludwig, C., J. Kuhl and J.O. White:* Complex dielectric function of NdGaO_3 in the THz frequency regime. *Opt. Commun.* **134**, 95-98 (1997).
- Maguire, J.A., K.-J. Lu, C.J. Thomas, T.G. Gray, Ying Wang, J.F. Eintracht, N.S. Hosmane, H. Binder, M. Wanitschek, H. Borrmann, A. Simon and H. Oberhammer:* Thermal conversion of *closo*-1,2-(SiMe_3)₂-1,2- $\text{C}_2\text{B}_4\text{H}_4$ to *closo*-1,6-(SiMe_3)₂-1,6- $\text{C}_2\text{B}_4\text{H}_4$: structure determination by ab-initio calculations, gas-phase electron diffraction, and low-temperature X-ray diffraction. *Chem. Eur. J.* **3**, 1059-1063 (1997).
- Maier, J.:* Funktion durch Fehler: zur Thermodynamik und Kinetik der Punktfehler in ionischen Festkörpern. In: *Werkstoff- und Verfahrenstechnik*, Eds. G. Ziegler et al. DGM-Informationsges., Frankfurt 1997, 3-13.
- Maksimov, E.G., D. Yu. Savrasov and S. Yu. Savrasov:* The electron-phonon interaction and the physical properties of metals. *Phys. Uspekhi* **40**, 337-358 (1997).
- Mandal, P., A. Neumann, A.G.M. Jansen, P. Wyder and R. Deltour:* Temperature and magnetic-field dependence of the resistivity of carbon-black polymer composites. *Phys. Rev.* **B55**, 452-456 (1997).
- Manghi, F., V. Bellini and C. Arcangeli:* On-site correlation in valence and core states of ferromagnetic nickel. *Phys. Rev.* **B56**, 7149-7153 (1997).
- Mani, R.G.:* Dual ordinary, integral quantum, and fractional quantum Hall effects in partially gated doubly connected GaAs/ $\text{Al}_x\text{Ga}_{1-x}\text{As}$ heterostructure devices. *Phys. Rev.* **B55**, 15838-15841 (1997).
- Dual Hall effects in inhomogeneous doubly connected GaAs/ AlGaAs heterostructure devices. *Appl. Phys. Lett.* **70**, 2879-2881 (1997).
- Mani, R.G., K. von Klitzing, F. Jost, K. Marx, S. Lindenkreuz and H.P. Trah:* Novel concepts in Hall sensors. In: *Proc. High Magnetic Fields in the Physics of Semiconductors II*, Eds. G. Landwehr and W. Ossau. World Scientific, Singapore 1997, 1021-1024.
- Maniv, T., R.Y. Rom, I.D. Vagner and P. Wyder:* Order parameter induced phase shift of the dHvA oscillations in type-II superconductors. *Solid State Commun.* **101**, 621-625 (1997).
- Manolescu, A. and R.R. Gerhardt:* Coulomb effects in the magnetoconductance of a two-dimensional electron gas in a lateral superlattice: a screened Hartree-Fock calculation. In: *Proc. High Magnetic Fields in the Physics of Semiconductors II*, Eds. G. Landwehr and W. Ossau. World Scientific, Singapore 1997, 319-322.
- Coulomb effects on the quantum transport of a two-dimensional electron system in periodic electric and magnetic fields. *Phys. Rev.* **B56**, 9707-9718 (1997).
- Marneffe de, J.F., J. Schröder, M. Ye, R. Deltour, A.G.M. Jansen and P. Wyder:* Magnetoresistance anisotropy in epitaxial $\text{YBa}_2(\text{C}_{1-x}\text{Zn}_x)_3\text{O}_{7-\delta}$ thin films. *Superlattices Microstr.* **21**, 323-325 (1997).
- Martin, T.P., U. Zimmermann, N. Malinowski, M. Heinebrodt, S. Frank, and F. Tast:* Clusters of fullerene molecules and metal atoms. *Phys. Scr.* **T66**, 38-40 (1996).
- Martonák, R., D. Marx and P. Nielaba:* Quantum fluctuations driven orientational disordering: a finite-size scaling study. *Phys. Rev.* **E55**, 2184-2194 (1997).
- Marx, D. and M. Parrinello:* Structure and dynamics of protonated methane: CH_5^+ at finite temperatures. *Z. Phys.* **D41**, 253-260 (1997).

Marx, D., M. Sprik and M. Parrinello: Ab-initio molecular dynamics of ion solvation. The case of Be^{2+} in water. Chem. Phys. Lett. **273**, 360-366 (1997).

Mattausch, H. and A. Simon: Crystal structure of tetrayttrium hexabromide monoboride, $\text{Y}_4\text{Br}_6\text{B}$. Z. Kristallogr. **212**, 99 (1997).

Mayer, E.J., N.T. Pelekanos, J. Kuhl, N. Magnea and H. Mariette: Evidence of interface roughness correlation in CdTe/(Cd,Zn)Te quantum wells. In: Ultrafast Processes in Spectroscopy, Eds. O. Svelto et al. Plenum Press, New York 1996, 275-277.

Mazin, I. and V. Anisimov: Insulating gap in FeO: correlations and covalency. Phys. Rev. **B55**, 12822-12825 (1997).

Meimberg, K., M. Potemski, P. Hawrylak, Y.H. Zhang and K. Ploog: Optically detected oscillations of screening by a two-dimensional electron gas in a magnetic field. Phys. Rev. **B55**, 7685-7689 (1997).

Menne, R. and R.R. Gerhardts: Consistent solution of Boltzmann's equation for two-dimensional electron systems with periodic unidirectional modulations of arbitrary strengths. In: Proc. High Magnetic Fields in the Physics of Semiconductors II, Eds. G. Landwehr and W. Ossau. World Scientific, Singapore 1997, 323-326.

Meyer, M. and N. Nicoloso: MC-study of the anomalous conductivity of fluorite-type solid oxide solutions. Ber. Bunsenges. Phys. Chem. **101**, 1393-1398 (1997).

Meyer, M., N. Nicoloso and V. Jaenisch: Percolation model for the anomalous conductivity of fluorite-related oxides. Phys. Rev. **B56**, 5961-5966 (1997).

Michiels, J.J.M., J.E. Inglesfield, C.J. Noble, V.M. Burke and P.G. Burke: Atomic theory of electron energy loss from transition metal oxides. Phys. Rev. Lett. **78**, 2851-2854 (1997).

- Spin and symmetry in low-energy electron energy-loss spectroscopy of transition metal oxides. J. Phys. Condens. Matter **9**, L543-L548 (1997).

Michler, P.: Emission dynamics of microcavity vertical surface emitting lasers. In: Strained-Layer quantum Wells, Ed. M.O. Manasreh. Gordon & Breach, Amsterdam 1997, 389-430.

Michler, P., M. Hilpert and G. Reiner: Dynamics of dual-wavelength emission from a coupled semiconductor microcavity laser. Appl. Phys. Lett. **70**, 2073-2075 (1997).

Milicev, S., A. Rahten, H. Borrmann and J. Siftar: Proton tunnelling in hydrazinium cations: vibrational spectra of $(\text{N}_2\text{H}_5)_2\text{HGaF}_6 \cdot 2\text{H}_2\text{O}$ and $(\text{N}_2\text{H}_5)_2\text{HFeF}_6 \cdot 2\text{H}_2\text{O}$ and crystal structure of $(\text{N}_2\text{H}_5)_2\text{HFeF}_6 \cdot 2\text{H}_2\text{O}$ at various temperatures. J. Raman Spectrosc. **28**, 315-321 (1997).

Mishra, S.K., S. Satpathy, F. Aryasetiawan and O. Gunnarsson: Is „canted“ spin order suppressed in double-exchange lanthanum manganites?. Phys. Rev. **B55**, 2725-2728 (1997).

Mishra, S.K., S. Satpathy and O. Jepsen: Electronic structure and thermoelectric properties of bismuth telluride and bismuth selenide. J. Phys. Condens. Matter **9**, 461-470 (1997).

Mitus, A.C., H. Weber and D. Marx: Local structure analysis of the hard-disk fluid near melting. Phys. Rev. **B55**, 6855-6859 (1997).

Molteni, C. and M. Parrinello: Condensed matter effects on the structure of crystalline glucose. Chem. Phys. Lett. **275**, 409-413 (1997).

Mulato, M., D. Toet, G. Aichmayr, P. Santos and I. Chambouleyron: Laser crystallization and structuring of amorphous germanium. Appl. Phys. Lett. **70**, 3570-2572 (1997).

- Müller, J., K.D. Kreuer, J. Maier, S. Matsuo and M. Ishigame: A conductivity and thermal gravimetric analysis of a Y-doped SrZrO₃ single crystal. *Solid State Ionics* **97**, 421-427 (1997).
- Münch, W., K.D. Kreuer, J. Maier and G. Seifert: Comparison of proton migration energies of the Perovskites BaTiO₃, BaZrO₃, and BaCeO₃ by quantum molecular dynamics. In: Proc. 5th Int. Symp. on Solid Oxide Fuel Cells, Ed. U. Stimming et al. Proc. Electrochem. Soc. 97-40. Electrochem. Soc., Pennington 1997, 1203-1212.
- Münch, W., G. Seifert, K.D. Kreuer and J. Maier: A quantum molecular dynamics study of the cubic phase of BaTiO₃ and BaZrO₃. *Solid State Ionics* **97**, 39-44 (1997).
- Mujica, C., K. Peters, E.-M. Peters and H.G. von Schnering: Crystal structure of tetraaquabis(perrheno)-copper(II), Cu(ReO₄)₂(H₂O)₄. *Z. Kristallogr.* **212**, 294 (1997).
 - Crystal structure of tetraaquabis(perrheno)nickel(II), Ni(ReO₄)₂(H₂O)₄. *Z. Kristallogr.* **212**, 295 (1997).
 - Crystal structure of triaquatris(perrheno)lanthanum(III), La(ReO₄)₃(H₂O)₃. *Z. Kristallogr.* **212**, 297-298 (1997).
- Mujica, C., C. Ulloa, J. Llanos, K. Peters, E.-M. Peters and H.G. von Schnering: Structure of Ba₂Cu₃S₂[VS₄], a new alkaline-earth copper thiovanadate. *J. Alloys Compd.* **255**, 227-230 (1997).
- Murugaraj, P., K.D. Kreuer, T. He, T. Schober and J. Maier: High proton conductivity in barium yttrium stannate Ba₂YSnO_{5.5}. *Solid State Ionics* **98**, 1-6 (1997).
- Nachtwei, G., Z.H. Liu, I.I. Kaya, G. Lütjering, D. Weiss, K. von Klitzing and K. Eberl: Nonequilibrium quantum transport in antidot arrays. *Phys. Stat. Sol.* **B204**, 329-334 (1997).
- Nachtwei, G., G. Lütjering, D. Weiss, Z. Liu, K. von Klitzing and C.T. Foxon: Breakdown of the quantum Hall effect in periodic and aperiodic antidot arrays. *Phys. Rev.* **B55**, 6731-6734 (1997).
- Näher, U., S. Bjørnholm, S. Frauendorf, F. Garcias, and C. Guet: Fission of metal clusters. *Phys. Rep.* **285**, 245-320 (1997).
- Nekvasil, V., T. Strach, T. Ruf, M. Cardona, S. Jandl, C. Chen and B. Wanklyn: Zeeman study of electronic Raman transitions in Nd₂CuO₄. *J. Alloys Compd.* **250**, 619-621 (1997).
- Neumann, M., P. Scharwächter, A. Seeger, W. Frank, K. Freitag, M. Konuma and G. Majer: Radiotracer study of the self-diffusion in sodium at low temperatures. In: Diffusion in Materials, Eds. H. Mehrer et al. Diffusion and Defect Data A143-147. Scitec, Uetikon-Zürich 1997, 85-90.
- Nestle, N., G. Denninger, M. Vidal, C. Weinzierl, K. Brunner, K. Eberl and K. von Klitzing: Electron spin resonance on a two-dimensional electron gas. *Phys. Rev.* **B56**, R4359-R4362 (1997).
- Nicoloso, N., R. Merino, H. Yugami and J. Maier: Diffusion of oxygen through YSZ in the presence of redox-active impurities. *Electrochem. Soc. Proc.* **95-24**, 106-121 (1997).
- Niraimathi, A.M., C. Ritter and E. Gmelin: Structural properties of G substituted Nd123 compounds. *Physica* **B234-236**, 23-25 (1997).
- Nuñez Regueiro, M.D.: A theoretical analysis of the ARPES of copper oxides. *Physica* **C282-287**, 987-988 (1997).
- Nuñez-Regueiro, M.D., L. Lacroix and B. Canals: Magnetic ordering in the frustrated Kondo lattice compound CePdAl. *Physica* **C282-287**, 1885-1886 (1997).
- Nuss, J., H. Kalpen, W. Hönle, M. Hartweg and H.G. von Schnering: New tetrapnictidometallates of silicon, germanium, tin, and tantalum with the Na₆ZnO₄ structure. *Z. Anorg. Allg. Chem.* **623**, 205-211 (1997).

Odelius, M., M. Bernasconi and M. Parrinello: Two dimensional ice adsorbed on mica surface. Phys. Rev. Lett. **78**, 2855-2858 (1997).

Oestreich, M., S. Hallstein, J.D. Berger, M. Hilpert, F. Jahnke, G. Khitrova, W.W. Rühle, S.W. Koch, H.M. Gibbs and H.C. Schneider: Hanle-oscillations in the stimulated emission of microcavity laser. In: Festkörperprobleme 37. Vieweg, Braunschweig 1997, 70-85.

Oh, J.H. and R.R. Gerhardts: Self-consistent Thomas-Fermi calculation of potential and current distributions in a two-dimensional Hall bar geometry. Phys. Rev. **B56**, 13519-13528 (1997).
- Effects of current and gate voltage on compressible and incompressible strips in a Hall bar. Physica **E1**, 108-110 (1997).

Oles, A.M., L.F. Feiner and J. Zaanen: Phase diagram of the spin-orbital model. Acta Phys. Polon. **A92**, 367-370 (1997).

Oles, A.M. and J. Zaanen: Quadrupling of unit cell in half-filled domain walls in the cuprates. Physica **B230-232**, 925-928 (1997).

Oles, A.M., J. Zaanen and L.F. Feiner: Spin liquid stabilized by orbital degeneracy. Mol. Phys. Rep. **17**, 185-198 (1997).

Orange, C., B. Schlichtherle, D. Wolverson, J.J. Davies, T. Ruf, K. Ogata and S. Fujita: Angle-resolved studies of the spin-flip Raman scattering of holes bound to acceptors in *p*-type nitrogen-doped ZnSe. Phys. Rev. **B55**, 1607-1609 (1997).

Papoular, M.D. Nuñez-Regueiro and M. Altarelli: Two-length-scale problem in critical scattering: narrow-component line shape. Phys. Rev. **B56**, 166-170 (1997).

Park, H., Y.S. Choi, Y.W. Park, C.K. Park, J.I. Jin, G. Kaiser and S. Roth: Steady state photoconductivity of poly(2-styryl-1,4-phenylene vinylene) (PSPV). Synth. Met. **84**, 965-966 (1997).

Parrinello, M.: From silicon to RNA: the coming of age of ab initio molecular dynamics. Solid State Commun. **102**, 107-120 (1997).

Patel, S., A.S. Plaut, P. Hawrylak, H. Lage, P. Grambow, D. Heitmann, K. von Klitzing, J.P. Harbison and L.T. Florenz: Magneto-optics of electron-gases confined in GaAs quantum dots. Solid State Commun. **101**, 865-869 (1997).

Peters, K., E.-M. Peters, A. Bonnaire, A. Engler, I. Klein and D. Spitzner: Crystal structure of (*rac*)-methyl(2*S**,2*R*'*,4'*S**12*bR**)-2'-*tert*-butyl-1,2,6,7,12,12*b*-hexahydro-4'-methyl-2-(5'-oxo-1',3'-dioxolane-4'-yl)indolo[2,3- α]-quinolizine-3-carboxylate, C₂₅H₃₀N₂O₅. Z. Kristallogr. **212**, 133-134 (1997).

Peters, K., E.-M. Peters, N.A. Braun, I. Klein and D. Spitzner: Crystal structure of ethyl (-)-(1*S*,2*R*,5*S*,7*S*,8*R*,4'*S*,5'*S*)-2-methoxy-8-(2',2'-dimethyl-5'-phenyl-1',3'-dioxolane-4'-yl)-6-oxo-tricyclo[3.2.1.0²]octane-1-carboxylate, C₂₃H₂₈O₆. Z. Kristallogr. **212**, 131-132 (1997).

Peters, K., E.-M. Peters, N.A. Braun and D. Spitzner: Crystal structure of *tert*-butyl-(+)-(1*R*,2*S*,3*S*,6*R*,7*S*,4'*S*)-6-benzyloxy-7-ethenyl-3-hydroxy-2-(2',2'-dimethyl-1',3'-dioxolan-4'-yl)-bicyclo[4.1.0]heptane-1-carboxylate, C₂₆H₃₆O₆. Z. Kristallogr. **212**, 469-471 (1997).

Peters, K., E.-M. Peters, S. Cossu and O. de Lucchi: Crystal structure of 5-chloro-7-(diphenylmethylene)-5,6-(*endo,endo*)-bis(phenylsulfonyl)-bicyclo[2.2.1]hept-2-ene, C₃₂H₂₅O₄S₂Cl. Z. Kristallogr. **212** 67-68.
- Crystal structure of 5-chloro-7-(diphenylmethylene)-5,6-(*exo,endo*)-bis(phenylsulfonyl)-bicyclo[2.2.1]hept-2-ene, C₃₂H₂₅O₄S₂Cl. Z. Kristallogr. **212** 69-70 (1997).

Peters, K., E.-M. Peters, T. Franz and V. Jäger: Crystal structure of (3*S*4*R*,1'*R*)-1-benzyl-3-benzyloxy-4-(1'-benzyloxy-2'-hydroxyethyl)-azetidione-2-one, C₂₆H₂₇NO₄. Z. Kristallogr. **212**, 421-422 (1997).

- Peters, K., E.-M. Peters, B. Karl and W. Tochtermann:* Crystal structure of tetramethyl (*M,P*)-2,2'-bi-(3,6-heptanooxepine)-4,4',5,5'-tetracarboxylate, $[C_6HO(CH_2)_7(COOCH_3)_2]_2$. *Z. Kristallogr.* **212**, 369-370 (1997).
- Peters, K., E.-M. Peters, T. Linker and F. Rebien:* Crystal structure of methyl *cis*-1,4-dihydro-1-hydroxy-4-phenyl-3-naphthoate, $C_{18}H_{16}O_3$. *Z. Kristallogr.* **212**, 135-136 (1997).
- Peters, K., E.-M. Peters, T. Linker and T. Sommermann:* Crystal structure of methyl 3,4,6-tri-*O*-acetyl-2-*C*-(dimethoxycarbonyl-methyl)- β -D-glucopyranoside, $C_{18}H_{26}O_{12}$. *Z. Kristallogr.* **212**, 137-138 (1997).
- Peters, K., E.-M. Peters, D. Martin and W. Tochtermann:* Crystal structure of trimethyl *syn*-12,13-dioxatetracyclo[7.2.1.1^{2,8}0^{2,8}]tri-dec-10-ene-1,10,11-tricarboxylate, $C_6HO_2(CH_2)_5(COOCH_3)_3$. *Z. Kristallogr.* **212**, 371-372 (1997).
- Peters, K., E.-M. Peters, J. Panten and W. Tochtermann:* Crystal structure of dimethyl (12*R**,13*R**)-3,11-dioxo-2,12-epoxycyclotridec-1-ene-1,13-dicarboxylate, $C_4H_2O(CO)_2(CH_2)_7(COOCH_3)_2$. *Z. Kristallogr.* **212**, 367-368 (1997).
- Peters, K., E.-M. Peters, U. Peters and W. Tochtermann:* Crystal structure of trimethyl (1*R**,5*S**,8*S**,9*S**,11*R**)-10-aza-tricyclo[6.3.1.01,5]dodecane-8,9,11-tricarboxylate, $C_{11}H_{15}NH(COOCH_3)_3$. *Z. Kristallogr.* **212**, 375-376 (1997).
- Peters, K., E.-M. Peters, A. Schiller and W. Tochtermann:* Crystal structure of dimethyl 20,21-epoxy-20,21-dihydro-2,5,8,11,14-penta-oxa[15]paracyclophane-17,18-dicarboxylate, $C_6H_2O((CH_2)_2O)_5(COOCH_3)_2$. *Z. Kristallogr.* **212**, 373-374 (1997).
- Peters, K., E.-M. Peters, M. Schmittel and H. Trenkle:* Crystal structure of 1,1-dimesityl-3,3-dimethyl-2-trifluoroacetoxy-but-1-ene, $C_{26}H_{31}O_2F_3$. *Z. Kristallogr.* **212**, 467-468 (1997).
- Peters, K., E.-M. Peters, H.G. von Schnering, U. Burkhardt and V. Jäger:* Crystal structure of 4-(1',3'-dioxolane-2'-yl)-3-methyl-1,2,5-oxadiazole-2-oxide, $C_6H_8N_2O_4$. *Z. Kristallogr.* **212**, 429-430 (1997).
- Peters, K., E.-M. Peters, H.G. von Schnering, A. Göpfert and W. Tochtermann:* Crystal structure of trimethyl 2,3,5,6,7,8,9,10-octahydro-2,3-epoxybenzocyclooctene-1,2,4-tricarboxylate, $C_{18}H_{22}O_7$. *Z. Kristallogr.* **212**, 177-178 (1997).
- Crystal structure of dimethyl 2*R**, 8-dibromo-12*R**-hydroxy-11-trimethylsilyl-bicyclo[6.2.2]dodeca-1(11),9,10-dicarboxylate, $C_{19}H_{28}O_5Br_2Si$. *Z. Kristallogr.* **212**, 247-248 (1997).
- Crystal structure of trimethyl 1a,6a-dihydro-4,6a-hexanooxireno[b]oxepine-3,5,6-tricarboxylate, $C_{18}H_{22}O_8$. *Z. Kristallogr.* **212**, 249-250 (1997).
- Peters, K., E.-M. Peters, H.G. von Schnering, M. Hein, R. Müller and V. Jäger:* Crystal structure of (-)-(5*R*,1*S*,2'*S*')-3-(1-*O*-benzyl-2,3-*O*-isopropylidene-1,2,3-dihydroxypropyl)-5-chloromethyl-4,5-dihydro-1,2-oxazole, $C_{17}H_{22}NO_4Cl$. *Z. Kristallogr.* **212**, 173-174 (1997).
- Peters, K., E.-M. Peters, H.G. von Schnering, W. Hümmer and V. Jäger:* Crystal structure of (-)-(1*R*,4*R*,7*S*)-7-hydroxy-5-(*p*-toluenesulfonyl)-5-aza-2-oxabicyclo[2.2.1]heptane, $C_{12}H_{15}NO_4S$. *Z. Kristallogr.* **212**, 171-172 (1997).
- Peters, K., E.-M. Peters, H.G. von Schnering, V. Königstein and W. Tochtermann:* Crystal structure of (1*R**,10*S**,11*S**,13*S**)-9-oxo-12,15-dioxatetracyclo[6.4.2.1^{10,13}.0^{1,11}]pentadeca-8(14)-ene-13,14-dicarboxylate, $C_{19}H_{24}O_7$. *Z. Kristallogr.* **212**, 77-78 (1997).
- Peters, K., E.-M. Peters, H.G. von Schnering, S. Meyer-Ahrens and W. Tochtermann:* Crystal structure of diethyl 4-aza-4-methyl[7]paracyclophane-9,10-dicarboxylate, $C_{19}H_{27}NO_4$. *Z. Kristallogr.* **212**, 71-72 (1997).

- Peters, K., E.-M. Peters, H.G. von Schnering, J. Pakusch, H.D. Beckhaus and C. Rüchardt:* Crystal structure of 1,2-bis(*p*-toluene)tetracyanoethane, $C_2(CN)_4(C_6H_4CH_3)_2$. Z. Kristallogr. **212**, 69-70 (1997).
- Crystal structure of 2,3-diisocyano-2,3-diphenylbutane, $[H_3CC(NC)(C_6H_5)]_2$. Z. Kristallogr. **212**, 75 (1997).
- Peters, K., E.-M. Peters, H.G. von Schnering, U. Peters and W. Tochtermann:* Crystal structure of dimethyl ($1R^*,5S^*,11R85^*$)-10-aza-11-hydroxy-8-dimethoxymethyl-tricyclo[6.3.1.0^{1,5}]dodec-9-ene-9,11-dicarboxylate, $C_{18}H_{27}NO_7$. Z. Kristallogr. **212**, 67-68 (1997).
- Peters, K., E.-M. Peters, H.G. von Schnering, J. Píkies and W. Wojnowski:* Crystal structure of diisopropoxydi(phenylamino)silane, $Si(OC_3H_7)_2(NHC_6H_5)_2$. Z. Kristallogr. **212**, 349 (1997).
- Peters, K., E.-M. Peters, H.G. von Schnering, J.P. Rasor, H.D. Beckhaus and C. Rüchardt:* Crystal structure of 1-(4-[2.2]paracyclophane)ethyl 2-phenyl-propionate, $C_{27}H_{28}O_2$. Z. Kristallogr. **212**, 73-74 (1997).
- Peters, K., E.-M. Peters, H.G. von Schnering, D. Schäfer and V. Jäger:* Crystal structure of α -D-gluco-5-(1,2-di-*O*-isopropylidene-3-*O*-methanesulfonyl-furanos-4-yl)-3-phenyl-2-isoxazoline, $C_{17}H_{21}NO_7S$. Z. Kristallogr. **212**, 425-426 (1997).
- Crystal structure of α -D-gluco-5-(1,2-di-*O*-isopropylidene-3-*O*-methanesulfonyl-furanos-4-yl)-2-isoxazoline-3-carboxylate, $C_{13}H_{19}NO_9S$. Z. Kristallogr. **212**, 425-426 (1997).
- Peters, K., E.-M. Peters, H.G. von Schnering, R. Schulze, H.D. Beckhaus and C. Rüchardt:* Crystal structure of 2,3-bis(dimethylamino)-diethyls succinate, $((CH_3)_2N)_2C_2H_2(COOC_2H_5)_2$. Z. Kristallogr. **212**, 76 (1997).
- Peters, K., E.-M. Peters, H.G. von Schnering, U. Veith and V. Jäger:* Crystal structure of (-)-(4*R*,5*R*,1'*S*)-5-benzyloxy-4-methyl-3-(1-phenyl-ethyl)-tetrahydro-1,3-oxazine-2-one, $C_{20}H_{23}NO_3$. Z. Kristallogr. **212**, 175-176 (1997).
- Peters, K., E.-M. Peters, H.G. von Schnering, W. Wojnowski, S. Tamulewicz and K. Radacki:* Crystal structure of orthophenanthroline-lead(II)-bis(tri-*tert*-butoxy-silanethiolate), $Pb\{SSi(OC_4H_9)_3\}_2N_2C_{12}H_8$. Z. Kristallogr. **212**, 341-342 (1997).
- Crystal structure of tris(tri-*tert*-butoxysilanethiolate)arsenic(III), $As\{SSi(OC_4H_9)_3\}_3$. Z. Kristallogr. **212**, 343-344 (1997).
- Crystal structure of tris(tri-*tert*-butoxysilanethiolate)bismuth(III), $Bi\{SSi(OC_4H_9)_3\}_3$. Z. Kristallogr. **212**, 345-346 (1997).
- Crystal structure of tris(tri-*tert*-butoxysilanethiolate)antimony(III), $Sb\{SSi(OC_4H_9)_3\}_3$. Z. Kristallogr. **212**, 347-348 (1997).
- Peters, K., E.-M. Peters, A. Simon, I. Badou and L. Dulog:* Crystal structure of 1,4-phenylene-bis(acryloyloxy-2,2,6,6-tetramethyl-piperidine-*N*-oxyl), $C_{30}H_{42}N_2O_6$. Z. Kristallogr. **212**, 139-140 (1997).
- Crystal structure of 4-cinnamolyloxybutanoylamino-2,2,6,6-tetramethyl-piperidine-*N*-oxyl, $C_{22}H_{31}N_2O_4$. Z. Kristallogr. **212**, 141-142 (1997).
- Pfannkuche, D., R.H. Blick, R.J. Haug, K. von Klitzing and K. Eberl:* Coupled quantum dots: manifestation of an artificial molecule. Superlattices Microstr. **20**, 54-58 (1996).
- Pfannkuche, D. and A.H. MacDonald:* Fractional quantum Hall effect or Hofstadter butterfly: interacting electrons in a lateral superlattice potential. In: Proc. High Magnetic Fields in the Physics of Semiconductors II, Eds. G. Landwehr and W. Ossau. World Scientific, Singapore 1997, 339-342.
- The quantum Hall effect of interacting electrons in a periodic potential. Phys. Rev. **B56**, R7100-7103 (1997).
- Plakida, N.M., P. Horsch, A. Liechtenstein and V.S. Oudovenko:* Superconducting pairing of spin polarons in the t-J model. Cond. Matter Phys. **7**, 139-148 (1996).

- Plakida, N.M., V.S. Oudovenko, P. Horsch and A.I. Liechtenstein:* Superconducting pairing of spin polarons in the t - J model. *Phys. Rev.* **B55**, R11997-R12000 (1997).
- Quasiparticles and Superconductivity in the t - t' - J model. *Physica* **C282-287**, 1739-1740 (1997).
- Pöttgen, R., B. Gibson and R.K. Kremer:* Crystal structure of Ytterbium silver germanide, YbAgGe. *Z. Kristallogr.* **212** 58-61 (1997).
- Primke, M., J. Heil, A. Böhm, A. Gröger and P. Wyder:* Imaging of longitudinal electron focusing by light-induced carrier excitation. *Phys. Rev. Lett.* **79**, 4882-4885 (1997).
- Quast, H., C. Becker, E.-M. Peters, K. Peters and H.G. von Schnering:* A novel synthesis and the autoxidation of 2,4,6,8-tetraphenylbarbaralane. *Liebigs Ann. Recueil* **1997**, 685-698 (1997).
- An attempted synthesis of 2,6-bis(phenylazo)barbaralane. *Liebigs Ann. Recueil* **1997**, 1733-1738 (1997).
- Queisser, H.-J.:* Materials research, basis of modern telecommunications. In: Proc. 9th Internat. Forum Frontiers of Telec. Techn. Tokyo 1997, 31-35.
- Photovoltaic multiplicities. In: Future Generation of Photovoltaic Technologies, Ed. R.D. McConnell. AIP Proc. 404. AIP, Woodbury, 1997, 267-274.
- Elementary particles utilized. *Semicond. News* **3/4**, 54-57 (1997).
- An den Grenzen des Wissens (Rezension). *Spektrum d. Wiss.* **11**, 138-140 (1997).
- Ramlau, R.:* High-resolution electron microscopy investigations on the real structure of $\text{In}_5\text{Mo}_{18}\text{O}_{28}$. *J. Solid State Chem.* **130**, 290-301 (1997).
- Ramlau, R., R.E. McCarley and A. Simon:* The structure of twin boundaries in cluster compounds: potassium barium oxomolybdate. In: Proc. Microscopy and Microanalysis 1997, Eds. G.W. Bailey et al. Springer, Berlin 1997, 639-640.
- Ramlau, R., A. Simon and R.E. McCarley:* Formation of novel cluster compounds from ternary molybdenum oxides by in-situ deintercalation. In: Proc. Microscopy and Microanalysis 1997, Eds. G.W. Bailey et al. Springer, Berlin 1997, 619-620.
- Ramsak, A. and P. Horsch:* Wave function and size of spin-polarons in the t - J model. *Physica* **C282-287**, 1805-1806 (1997).
- Riedl, Z., G. Hajós, A. Messmer, A. Rockenbauer, L. Korecz, G. Kollenz, W.M.F. Fabian, K. Peters and E.-M. Peters:* Unusual conversions of a zwitterionic polyfused triazine with electron-deficient dienophiles. *Chem. Commun.*, 757-758 (1997).
- Rikken, G.L.J.A. and E. Raupach:* Observation of magneto-chiral dichroism. *Nature* **390**, 493-495 (1997).
- Rikken, G.L.J.A., A. Sparenberg and B.van Tiggelen:* The photon Hall effect. *Phys. Bl.* **53**, 133-134 (1997).
- Rikken, G.L.J.A. and B. van Tiggelen:* Direction of optical energy flow in a transverse magnetic field. *Phys. Rev. Lett.* **78**, 847-850 (1997).
- Ritz, M., T. Kaneko and K. Eberl:* The effect of surface reconstructions on the surface morphology during in situ etching of GaAs. *Appl. Phys. Lett.* **71**, 695-697 (1997).
- Romcevic, N., Z.V. Popovic, D.R. Kholkhlov and W. König:* Far-infrared spectroscopy of localized states in indium doped PbTe and $\text{Pb}_{1-x}\text{A}_x\text{Te}$ ($\text{A}_x = \text{Mn}_{0.017}; \text{Sn}_{0.18}$) alloys. *Infrared Phys. & Technol.* **38**, 117-122 (1997).
- Roth, S., S. Blumentritt, M. Burghard, S. Curran, C.M. Fischer, G. Düsberg, C. Müller-Schwanneke and J. Muster:* π -conjugated materials for molecular electronics. In: Polymers and Organic solids, Eds. L. Shi and D. Zhu. Science Press, Beijing 1997, 263-276.

Roth, S., S. Blumentritt, M. Burghard, C.M. Fischer, C. Müller-Schwanneke, J. Muster and G. Philipp: Molecular rectification. In: Atomic and Molecular Wires, Eds. C. Joachim and S. Roth. Kluwer Academic Press, Dordrecht 1997, 109-118.

Roth, S., S. Blumentritt, M. Burghard, C.M. Fischer, G. Philipp and C. Müller-Schwanneke: Charge transport in LB microsandwiches. Synth. Met. **86**, 2415-2418 (1997).

Roth, S., M. Burghard and C.M. Fischer: Resonant tunneling and molecular rectification in Langmuir-Blodgett films. In: Molecular Electronics, Eds. J. Jortner and M.A. Ratner. Blackwell, Oxford 1997, 255-280.

Röthlisberger, U. and M. Parrinello: Ab-initio molecular dynamics simulation of liquid hydrogen fluoride. J. Chem. Phys. **106**, 4658-4664 (1997).

Rousseau, R. and D. Marx: Ab-initio calculations on small lithium clusters. Phys. Rev. **A56**, 617-625 (1997).

Rovira, C., P. Ballone and M. Parrinello: A density functional study of iron-porphyrin complexes. Chem. Phys. Lett. **271**, 247-250 (1997).

Rubel, H., A. Fischer, W. Dietsche, K. von Klitzing and K. Eberl: Observation of screening in the magneto-Coulomb drag between coupled two-dimensional electron systems. Phys. Rev. Lett. **78**, 1763-1766 (1997).

Saalfrank, R.W., M. Decker, F. Hampel, K. Peters and H.G. von Schnering: Induction of helicity via stereogenic centers: asymmetric synthesis of (*P*)- and (*M*)-coordination polymers. Chem. Ber. Recueil **130**, 1309-1313 (1997).

Saalfrank, R.W., R. Harbig, O. Struck, F. Hampel, E.-M. Peters, K. Peters u. H.G. von Schnering: Eindimensionale Kupfer(II)-Koordinationspolymere: Kristall-Engineering durch variable Verknüpfungsmuster. Z. Naturforsch. **52b**, 125-134 (1997).

Sachse, J.-U., W. Jost, J. Weber and H. Lemke: Trivalent behavior of palladium in silicon. Appl. Phys. Lett. **71**, 1379-1381 (1997).

Sachse, J.-U., E.O. Sveinbjörnsson, W. Jost, J. Weber and H. Lemke: Electrical properties of platinum-hydrogen complexes in silicon. Phys. Rev. **B55**, 16176-16185 (1997).
- New interpretation of the dominant recombination center in platinum doped silicon. Appl. Phys. Lett. **70**, 1584-1586 (1997).

Saha-Dasgupta, T., Dasgupta, I. and A. Mookerjee: Augmented space recursion approach for alloy phase stability. In: Properties of Complex Inorganic Solids, Eds. F. Gonis et al. Plenum Press, New York 1997, 25-30.

Saint-Paul, M., N. Hegman, G. Remenyi, P. Monceau, G. Dhalenne and A. Revcolevschi: Determination of the phase diagram of 2% Zn-doped CuGeO₃ by means of ultrasound measurements in high magnetic fields. J. Phys. Condens. Matter **9**, L231-L237 (1997).
- Phonon-soliton interaction in the incommensurate phase of the spin-Peierls compound CuGeO₃. Phys. Rev. **B55**, R6121-R6124 (1997).

Sapega, V.F., V.I. Perel, A. Yu. Dobin, D.N. Mirlin, I.A. Akimov, T. Ruf, M. Cardona and K. Eberl: Miniband effects on the hot-electron photoluminescence polarization in GaAs/AlAs superlattices. Phys. Rev. **B56**, 6871-6879 (1997).

Sapega, V., T. Ruf, M. Cardona, H. Grahn and K. Ploog: Acoustic-phonon Raman scattering from Wannier-Stark levels in GaAs/AlAs superlattices. Phys. Rev. **B56**, 1041-1044 (1997).

- Sarge, S.M., W. Hemminger, E. Gmelin, G.W.H. Höhne, H.K. Cammenga and W. Eysel:* Metrologically based procedures for the temperature, heat and heat flow rate calibration of DSC. *J. Thermal Anal.* **49**, 1125-1134 (1997).
- Scherb, G., A. Kazimirov, J. Zegenhagen, T. Schultz, R. Feidenhans'l and B.O. Fimland:* Potential controlled stripping of an amorphous As layer on GaAs(001) in an electrolyte: An in-situ X-ray scattering study. *Appl. Phys. Lett.* **71**, 2990-2992 (1997).
- Schmidt, T., R.J. Haug, V.I. Fal'ko, K. von Klitzing, A. Förster and H. Lüth:* Observation of the local structure of Landau bands in a disordered conductor. *Phys. Rev. Lett.* **78**, 4137-4141 (1997).
- Schmidt, T., R.J. Haug, K. von Klitzing, A. Förster and H. Lüth:* Spectroscopy of the single-particle states of a quantum-dot molecule. *Phys. Rev. Lett.* **78**, 1544-1547 (1997).
- Single-electron transport in small resonant-tunneling diodes with various barrier-thickness asymmetries. *Phys. Rev.* **B55**, 2230-2236 (1997).
- Schnelle, W., B. Büchner, E. Gamper, M. Stein, M.T. Fernández-Diaz and P. Odier:* Thermal properties at the low-temperature structural and magnetic phase transitions in Pr₂NiO₄ crystals. *Phys. Rev.* **B54**, 9970-9975 (1996).
- Schnelle, W., R. Pöttgen, R. Kremer, E. Gmelin and O. Jepsen:* The crystal structure, magnetic susceptibility, electrical resistivity, specific heat, and electronic band structure of RAuGe (R=Sc,Y,La,Lu). *J. Phys. Condens. Matter* **9**, 1435-1450 (1997).
- Schnering von, H.G., M. Baitinger, U. Bolle, W. Carrillo-Cabrera, J. Curda, Y. Grin, F. Heinemann, J. Llanos, K. Peters, A. Schmeding and M. Somer:* Binary alkalimetal compounds with the Zintl anions [Ge₉]⁴⁻ and [Sn₉]⁴⁻. *Z. Anorg. Allg. Chem.* **623**, 1037-1039 (1997).
- Schönherr, E., M. Freiberg and H. Hartmann:* Preferred [111] growth of ZnSe crystals from the vapor due to repeated twinning. *J. Cryst. Growth* **179**, 423-426(1997).
- Schönherr, E. and K. Matsumoto:* Nucleation ahead of a C₆₀ crystal growing from the vapor. *J. Crystal Growth* **178**, 280-286 (1997).
- Schröder, M., M., Ye, J.F. de Marneffe, M. Mehbod, R. Deltour, A.G.M. Jansen and P. Wyder:* Thermally activated flux motion in YBa₂(Cu_{1-x}Zn_x)₃O_{7-δ} epitaxial thin films: Influence of magnetic field and Zn doping. *Physica* **C278**, 113-116 (1997).
- Schwarz, U., S. Bräuninger, Y. Grin and K. Syassen:* Erratum to "Structural phase transition of TmGa₂ at high pressure". *J. Alloys Compd.* **256**, 279 (1997).
- Semling, M., M. Jordan, K. Syassen, H.J. Jodl and G.F. Signorini:* Luminescence spectra of matrix isolated N₂ at high pressure and low temperature. *J. Chem. Phys.* **106**, 1336-1345 (1997).
- Sigmund, W.M., M. Rotov, Q.D. Jiang, J. Brunen, J. Zegenhagen and F. Aldinger:* A titanium-rich (111) surface of SrTiO₃ single crystals by thermal annealing. *Appl. Phys.* **A64**, 219-220 (1997).
- Silvestrelli, P.L., A. Alavi and M. Parrinello:* Electrical-conductivity calculation in ab-initio simulations of metals: Application to liquid sodium. *Phys. Rev.* **B55**, 15515-15522 (1997).
- Silvestrelli, P.L., A. Alavi, M. Parrinello and D. Frenkel:* Structural, dynamical, electronic, and bonding properties of laser-heated silicon: an ab-initio molecular-dynamics study. *Phys. Rev.* **B56**, 3806-3812 (1997).

- Simon, A.*: Group 1 and 2 suboxides and subnitrides - metals with atomic size holes and tunnels. *Coordination Chem. Rev.* **163**, 253-270 (1997).
 - Supraleitung und Chemie. *Angew. Chem.* **109**, 1872-1891 (1997).
 - Superconductivity and chemistry. *Angew. Chem. Int. Ed. Engl.* **36**, 1788-1806 (1997).
- Simon, A., H. Borrmann and J. Horakh*: On the polymorphism of white phosphorus. *Chem. Ber. Recueil* **130**, 1235-1240 (1997).
- Sirenko, A.A., T. Ruf, M. Cardona, D.R. Yakovlev, W. Ossau, A. Waag and G. Landwehr*: Electron and hole g factors measured by spin-flip Raman scattering in CdTe/Cd_{1-x}Mg_xTe single quantum wells. *Phys. Rev.* **B56**, 2114-2119 (1997).
- Smet, J.H., D. Weiss, K. von Klitzing, P.T. Coleridge, Z.W. Wasilewski, R. Bergmann, H. Schweizer and A. Scherer*: Composite fermions in periodic and random antidot lattices. *Phys. Rev.* **B56**, 3598-3601 (1997).
- Snoke, D.W., W.W. Rühle, K. Köhler and K. Ploog*: Spin-flip of excitons in GaAs-quantum wells. *Phys. Rev.* **B55**, 13789-13794 (1997).
- Solovjov, A.L., V.M. Dmitriev, H.-U. Habermeier and I.E. Trofimov*: Analysis of fluctuation conductivity of YBa₂Cu₃O_{7-δ}-PrBa₂Cu₃O_{7-δ} superlattices. *Phys. Rev.* **B55**, 8551-8556 (1997).
- Somer, M., W. Carrillo-Cabrera, J. Curda, K. Peters and H.G. von Schnering*: Crystal structure of tribarium arsenide borate, Ba₃As[BO₃]. *Z. Kristallogr.* **212**, 300 (1997).
- Somer, M., W. Carrillo-Cabrera, E.-M. Peters, K. Peters and H.G. von Schnering*: Crystal structure of dirubidium hydrogenphosphide, Rb₂[PH]. *Z. Kristallogr.* **212**, 299 (1997).
- Somer, M., U. Herterich, J. Curda, W. Carrillo-Cabrera, K. Peters and H.G. von Schnering*: Ternary nitridoborates. 1. LiMg[BN₂] and Ba₄[BN₂]₂O, compounds with the anion [N-B-N]₃⁻: syntheses, crystal structures, and vibrational spectra. *Z. Anorg. Allg. Chem.* **623**, 18-24 (1997).
- Sparenberg, A., G. Rikken and B. van Tiggelen*: Observation of photonic magnetoresistance. *Phys. Rev. Lett.* **79**, 757-760 (1997).
- Späth, M., K.D. Kreuer, T. Dippel and J. Maier*: Proton transport phenomena in pure alkali-metal hydroxides. *Solid State Ionics* **97**, 291-297 (1997).
- Stammler, T., E. Gmelin, K.H. Greubel, M. Hampele, J. Major and R. Scheuermann*: Pressure cell and combined cryostat/furnace for high-pressure μSR studies. *Hyperfine Interact.* **106**, 307-311 (1997).
- Steinbrenner, U. and A. Simon*: Structural frustration in a rod packing. An analogy to the disordered triangular Ising net. *Z. Kristallogr.* **212**, 428-438 (1997).
- Stich, I., D. Marx, M. Parrinello and K. Terakura*: Proton induced plasticity in hydrogen clusters. *Phys. Rev.* **E55**, 6855-6857 (1997).
- Strach, T., T. Ruf, M. Cardona, S. Jandl and V. Nekvasil*: Crystal-field transitions in (RE)_{2-x}Ce_xCuO₄: Raman versus inelastic neutron scattering. *Physica* **B234-236**, 810-811 (1997).
- Strach, T., T. Ruf, M. Cardona, S. Jandl, V. Nekvasil, C. Chen, B.M. Wanklyn, D.I. Zhigunov, S.N. Barilo and S.V. Shiryayev*: Zeeman study of Raman-active crystal-field transitions in Nd₂CuO₄ and Sm₂CuO₄. *Phys. Rev.* **B56**, 5578-5581 (1997).

- Strohm, T. and M. Cardona:* Electronic Raman scattering in $\text{YBa}_2\text{Cu}_3\text{O}_7$ and other superconducting cuprates. *Phys. Rev.* **B55**, 12725-12735 (1997).
- Determination of the *s*-wave/*d*-wave gap ratio in $\text{YBa}_2\text{Cu}_3\text{O}_7$ from electronic Raman scattering and the LMTO band structure. *Solid State Commun.* **104**, 233-235 (1997).
- Sveinbjörnsson, E.O. and J. Weber:* Room temperature electroluminescence from D1 dislocation centers in silicon. *Mater. Res. Soc. Symp. Proc.* **442**, 331-336 (1997).
- Room-temperature electroluminescence from dislocation in silicon. *Thin Solid Films* **294**, 201-203 (1997).
- Svoboda, P., G. Nachtwei, C. Breitlow, S. Heide and M. Cukr:* Electron conduction within Landau level tails of medium-mobility GaAs/AlGaAs heterostructures. *Semicond. Sci. Technol.* **12**, 264-271 (1997).
- Szabo, P., P. Samuely, A.G.M. Jansen, P. Wyder, J. Marcus, T. Klein and C. Escribe-Filippini:* Andreev reflection of the Ag - $\text{BaPb}_{1-x}\text{Bi}_x\text{O}_3$ microconstruction: temperature and magnetic field dependence. *J. Low Temp. Phys.* **106** 291-295 (1997).
- Tallon, J.L., C. Bernhard and Ch. Niedermayer:* Muon spin relaxation studies of superconducting cuprates. *Supercond. Sci. Technol.* **10**, A38-A51 (1997).
- Tank, R.W., C. Arcangeli, G. Krier, O.K. Andersen, O. Jepsen:* Improved LMTO-ASA methods part II. Total energy. In: *Properties of Complex Inorganic Solids*, Eds. F. Gonis et al. Plenum Press, New York 1997, 233-236.
- Tast, F., N. Malinowski, S. Frank, M. Heinebrodt, I. M.L. Billas and T.P. Martin:* Transition metal coated fullerenes. *Z. Phys.* **D40**, 351-354 (1997).
- Tast, F., N. Malinowski, M. Heinebrodt, I. Billas and T.P. Martin:* Fullerenes coated with sulfur and phosphorous molecules. *J. Chem. Phys.* **106**, 9372-9375 (1997).
- Terashima, T., S. Uji, H. Aoki, W. Joss, Y. Haga, A. Uesawa and T. Suzuki:* Fermi surface and magnetic phases of the low-carrier-density strongly correlated electron system CeP. *Phys. Rev.* **B55**, 4197-5001 (1997).
- Tochtermann, W., A.-K. Matlack, M. Kasch, E.-M. Peters, K. Peters and H.G. von Schnering:* Synthesis and reactions of optically active bridged methyl deoxyfuranosides. *Liebigs Ann.* **1996**, 317-322 (1996).
- Tochtermann, W., T. Panitzsch, M. Peschanel, C. Wolff, E.-M. Peters, K. Peters and H.G. von Schnering:* Synthesis of optically active bridged bicyclobutane derivatives. *Liebigs Ann. Recueil* **1997**, 1125-1129 (1997).
- Toet, D., B. Koopmans, R. Bergmann, B. Richards, P. Santos, M. Albrecht and J. Krinke:* Large area polycrystalline silicon thin films grown by laser-induced nucleation and solid phase crystallization. *Thin Solid Films* **296**, 49-52 (1996).
- Tong, Q.-Y., T.-H. Lee, P. Werner, U. Gösele, R. Bergmann and J.H. Werner:* Fabrication of single crystalline SiC layer on high temperature glass. *J. Electrochem. Soc.* **144**, L111-L113 (1997).
- Tornow, M., D. Weiss, A. Manolescu, R. Menne, K. von Klitzing and G. Weimann:* Even-odd filling factor switching in one-dimensional lateral superlattices. *Phys. Rev.* **B54**, 16379-16399 (1996).
- Tsoi, M.V., A. Böhm, M. Primke, V.S. Tsoi and P. Wyder:* Direct observation of conduction electron beam transmission through a Bi intercrystalline boundary. *Phys. Rev.* **B56**, 1-5 (1997).
- Tsoi, M.V., A.G. M. Jansen and J. Bass:* Search for point-contact giant magnetoresistance in Co/Cu multilayers. *J. Appl. Phys.* **81**, 5530-5532 (1997).

- Tuckerman, M.E., D. Marx, M.L. Klein and M. Parrinello:* On the quantum nature of the shared proton in hydrogen bonds. *Science* **275**, 817-820 (1997).
- Tudyka, S., K. Pflanz, F. Aldinger, H. Borrmann, P. Fischer and H. Brunner:* Synthese und Charakterisierung eines neuen gemischten Titan-Aluminium Alkoxids. *Z. Anorg. Allg. Chem.* **623**, 1163-1167 (1997).
- Ulloa, S.E. and D. Pfannkuche:* Level statistics and interactions in a two-dimensional quantum dot. *Superlattices Microstr.* **21**, 21-28 (1997).
- Ulrich, C., E. Anastassakis, K. Syassen, A. Debernardi and M. Cardona:* Lifetime of phonons in semiconductors under pressure. *Phys. Rev. Lett.* **78**, 1283-1286 (1997).
- Ulrich, C., M.A. Mroginiski, A.R. Goñi, A. Cantarero, U. Schwarz, V. Muñoz and K. Syassen:* Vibrational properties of InSe under pressure. Experiment and theory. *Phys. Status Solidi* **B198**, 121-127 (1997).
- Uma, S., W. Schnelle, E. Gmelin, G. Rangarajan and A. Erb:* Specific heat of pure $Y_{1-x}Pr_xBa_2Cu_3O_{7-\delta}$ single crystals in magnetic fields. *J. Appl. Phys.* **81**, 4227-4229 (1997).
- Vagner, I., Y. Bychkov, A. Dyugaev and T. Maniv:* Hyperfine interactions and spin textures in quantum Hall systems. *Phys. Scr.* **66**, 158-161 (1996).
- Vargas, P. and D. Altbir:* RKKY interaction between metallic clusters. *J. Magn. Magn. Mater.* **167**, 161-165 (1997).
- Vartanyants, I.A. and J. Zegenhagen:* Contributions of multiple terms to the photoelectric yield in X-ray standing-wave measurements. *Nuovo Cimento* **19D**, 617-621 (1997).
- Vasiliev, Yu.B., D. Bertram, M. Dilger, K. von Klitzing and K. Eberl:* Far-IR spectroscopy of double layer two-dimensional electron systems in high magnetic fields. In: *Proc. High Magnetic Fields in the Physics of Semiconductors II*, Eds. G. Landwehr and W. Ossau. World Scientific, Singapore 1997, 781-784.
- Vogt, H.:* Stiffening and splitting of the soft mode of $KTaO_3$ induced by doping with Li. *Ferroelectrics* **202**, 157-165 (1997).
- Volkov, O.V., V.E. Zhitomirskii, I.V. Kukushkin, W. Dietsche, K. von Klitzing, A. Fischer and K. Eberl:* Magneto-optical spectroscopy of two-dimensional holes in $GaAs/Al_xGa_{1-x}As$ single heterojunctions. *Phys. Rev.* **B56**, 7541-7548 (1997).
- Volz, W., F.S. Razavi, G. Quirion, H.-U. Habermeier and A.L. Solovjov:* Magnetoresistance and the effect of superconducting fluctuations in $YBa_2Cu_3O_7/PrBa_2Cu_3O_7$ superlattices. *Phys. Rev.* **B55**, 6631-6635 (1997).
- Wang, D.T., A. Göbel, J. Zegenhagen and M. Cardona:* Raman scattering on α -Sn: dependence on isotopic composition. *Phys. Rev.* **B56**, 13167-13171 (1997).
- Wang, L., J.A. Wolk, L. Hsu, E.E. Haller, J.W. Erickson, M. Cardona, T. Ruf, J.P. Silveira and F. Brionesl:* Gallium self-diffusion in gallium phosphide. *Appl. Phys. Lett.* **70**, 1831-1835 (1997).
- Weber, H. and D. Marx:* Comment on „One-stage continuous melting transition in two dimensions“. *Phys. Rev. Lett.* **78**, 398-399 (1997).
- Weidenbruch, M., A. Hagedorn, K. Peters and H.G. von Schnering:* Cleavage reactions of hexa-tert-butylcyclotrigermane: racemate versus conglomerate crystallization. *Chem. Ber.* **129**, 401-404 (1996).
- Weidenbruch, M., S. Olthoff, K. Peters and H.G. von Schnering:* Phosphadisilacyclobutenes by stepwise silylene additions to phosphalkynes. *Chem. Commun.* **1997**, 1433-1434 (1997).

- Weidenbruch, M., A. Stilter, K. Peters u. H.G. von Schnering: Alkylarylstannylen-Komplexe des Chroms und Molybdäns ohne Donorstabilisierung. *Z. Anorg. Allg. Chem.* **622**, 534-538 (1996).
- Stannylene complexes of iron and nickel without donor stabilization. *Chem. Ber.* **129**, 1565-1567 (1996).
- Weirich, Th.E., R. Pöttgen and A. Simon: Crystal structure of defect pentavanadium tetratelluride, $V_{4.64}Te_4$. *Z. Kristallogr.* **212**, 301 (1997).
- Wengert, S., R. Nesper, W. Andreoni and M. Parrinello: Ionic diffusion in a ternary superionic conductor: an ab-initio molecular dynamics study. *Phys. Rev. Lett.* **77**, 5083-5085 (1996).
- Werner, H., L. Xiaolan, K. Peters and H.G. von Schnering: Iminoacylcobalt compounds as starting materials for the synthesis of alkynylcobalt halfsandwiches and cobaltaheterocycles. *Chem. Ber. Recueil* **130**, 565-570 (1997).
- Mono- and bicyclic organometallic ring systems with exocyclic C=C and C=S bonds. *Chem. Ber. Recueil* **130**, 871-877 (1997).
- Wiegelmann, H., I. Vitebsky, A. Stepanov, A. Jansen and P. Wyder: Magnetoelectric effect in R_2CuO_4 (R=Gd, Sm, and Nd). *Phys. Rev.* **B55**, 15304-15311 (1997).
- Wiesner, U., S. Roshko, W. Dietsche, K. von Klitzing and K. Eberl: Spectroscopy of two-dimensional electronic systems in strong magnetic field with monochromatic phonons. In: *High Magnetic Fields in the Physics of Semiconductors II*, Eds. G. Landwehr and W. Ossau. World Scientific, Singapore 1997, 23-26.
- Wirth, K.R. and J. Zegenhagen: Defect creation on Ge(111)-c(2x8) by thermal C_{60} deposition studied with STM. *Phys. Rev.* **B56**, 9864-9870 (1997).
- Witowski, A.M., Ch. Kutter and P. Wyder: Spin-lattice relaxation at high magnetic fields: a tool for electron-phonon coupling studies. *Phys. Rev. Lett.* **78**, 3951-3954 (1997).
- Wu, K. and R. Dronskowski: First principles model calculations of In+-Br- bonding. *J. Phys. Chem. Solids* **57**, 1719-1725 (1996).
- Yanson, I.K., V.V. Fisun, A.G.M. Jansen, P. Wyder, P.C. Canfield, B.K.Cho, C.V. Tomy and D.M. Paul: Observation of electron-photon interaction with soft phonons in superconducting RNi_2B_2C . *Phys. Rev. Lett.* **78**, 935-938 (1997).
- Ye, P.D., D. Weiss, R.R. Gerhardts and H. Nickel: Magnetoresistance oscillation induced by periodically arranged micromagnets. *J. Appl. Phys.* **81**, 5444-5448 (1997).
- Zegenhagen, J., P.F. Lyman, M. Böhringer and M.J. Bedzyk: Discommensurate reconstructions of (111)Si and Ge induced by surface alloying with Cu, Ga and In. *Phys. Status Solidi* **B204**, 587-616 (1997).
- Zehender, S., M. Konuma, I. Silier, E. Czech, E. Bauser, G. Jakob, and R. Katterloher: Progress in growth techniques of high purity GaAs. In: *Eur. Space Agency, Spec. Publ. ESA, Paris 1996*, 49-52.
- Zeman, J., G. Martinez, P. Y. Yu and K. Uchida: Band alignment and photoluminescence up-conversion at the GaAs/(ordered)GaInP₂ heterojunction. *Phys. Rev.* **B55**, R13428-R13431 (1997).
- Zeman, J., M. Zigone, G.L.J.A. Rikken, G. Martinez, M. Hanfland and D. Haeusermann: The photoluminescence of porous silicon under high hydrostatic pressure. A key experiment to determine the photoluminescence origin. *J. Lumin.* **72-74**, 411-412 (1997).
- Zeng, W.-S., V. Heine and O. Jepsen: The structure of barium in the hexagonal close-packed phase under high pressure. *J. Phys. Condens. Matter* **9**, 3489-3502 (1997).

- Zeyher, R.: Local enforcement of constraints in the t - J model: results for the density fluctuation spectrum and superconducting instabilities. *Mol. Phys. Rep.* **17**, 247-259 (1997).
- Zeyher, R. and A. Greco: Instabilities towards superconductivity and incommensurate bond-order waves in the t - J model. *Physica* **C282-287**, 1741-1742 (1997).
 - Superconductivity in the t - J model in the large- N limit. *Z. Phys.* **B104**, 737-740 (1997).
- Zhang, J.M., M. Cardona, Z.L. Peng and Y. Horikoshi: Raman scattering studies on Si-doped GaAs grown by hydrogen-assisted molecular beam epitaxy. *Appl. Phys. Lett.* **71**, 1813-1815 (1997).
- Zhang, P., T. Haage, H.-U. Habermeier, A. Kazimirov, T. Ruf and M. Cardona: Abnormal Raman intensity enhancement of Cu-Cu vibration with film thickness reduction in YBaCuO_{7- δ} on LaSrAlO₄. *J. Alloys Compd.* **251**, 70-73 (1997).
- Zhang, P.X., T. Sekinger, U. Sticher, B. Leibold, H.-U. Habermeier and M. Cardona: Raman characterization of YBa₂Cu₃O_{7- δ} thin films. *Physica* **C282-287**, 1047-1048 (1997).
- Zhang, P.X., U. Sticher, B. Leibold and H.-U. Habermeier: Thickness dependence of the thermoelectric voltages in YBaCuO_{7- δ} thin films on tilted substrate of SrTiO₃. *Physica* **C282-287**, 2551-2552 (1997).
- Zheng, W.-S., V. Heine and O. Jepsen: The structure of barium in the hexagonal close-packed phase under high pressure. *J. Phys. Condens. Matter* **9**, 3489-3502 (1997).
- Zheng, Y.Q., K. Peters, W. Hönl, Y. Grin and H.G. von Schnering: The crystal structure of tungsten(II) bromide, W₆Br₁₂. *Z. Kristallogr.* **212**, 453-457 (1997).
- Zheng, Y.Q., K. Peters and H.G. von Schnering: Crystal structure of dirubidium hexabromotungstate(IV), Rb₂WBr₆. *Z. Kristallogr.* **212**, 53 (1997).
 - Crystal structure of dipotassium chlorobromotungstate(IV), K₂WCl_{5.4}Br_{0.6}. *Z. Kristallogr.* **212**, 54 (1997).
 - Crystal structure of dicesium hexabromotungstate(IV), Cs₂WBr₆. *Z. Kristallogr.* **212**, 55 (1997).
 - The crystal structure of tungsten(II) bromide, W₆Br₁₂. *Z. Kristallogr.* **212**, 453-457 (1997).
- Zhou, X., M. Cardona, D. Colson and V. Viallet: Plane oxygen vibrations and their temperature dependence in HgBa₂Ca₂Cu₃O_{8+ δ} single crystals. *Phys. Rev.* **B55**, 12770-12775 (1997).
 - Multiple features in electronic Raman spectra of HgBa₂Ca₂Cu₃O_{8+ δ} superconductor. *Phys. Status Solidi* **B199**, 7-8 (1997).
 - Vibrational and electronic Raman scattering of HgBa₂Ca₂Cu₃O_{8+ δ} superconductor. *Physica* **C282-287**, 1007-1008 (1997).
- Zhou, X., M. Cardona, W. König, J. Zegenhagen and Z.X. Zhao: Far-infrared reflectance and Raman scattering study of infinite-layer SrCuO₂. *Physica* **C282-287**, 1011-1012 (1997).
- Zhou, X., V.G. Hadjiev, M. Cardona, Q.M. Lin and C.W. Chu: Strong electron-phonon interactions in HgBa₂Ca₃Cu₄O_{10+d} superconductor. *Phys. Status Solidi* **A202**, 7-8 (1997).
- Ziesche, P., O. Gunnarsson, W. John and H. Beck: Two-site Hubbard model and BCS model - naturally analyzed and the concept of correlation entropy. *Phys. Rev.* **B55**, 10270-10277 (1997).
- Zimmer, F., P. Ballone, J. Maier and M. Parrinello: Defect-defect interactions in ionic conductors: a classical MD and MC study. *Ber. Bunsenges. Phys. Chem.* **101**, 1333-1338 (1997).
- Zubkov, V.G., V.A. Pereliaev, A.P. Tyutyunnik, J. Köhler, A. Simon and G. Svensson: Condensed cluster phases in reduced oxoniobates: synthesis and studies of Sr_{4-x}Nb₁₇O₂₆ ($x=0.0(1), 0.3(1)$) and Eu_{4-x}Nb₁₇O₂₆ ($x=0.3(1)$). *J. Alloys Compd.* **256**, 129-139 (1997).