



Bibliometric analysis of FKF papers 2004

W. Marx

Scientific publications (papers) are the basic output of research activities. The size and style as well as the impact of papers vary considerably. Thus, the pure number of publications is insufficient as a measure of scientific productivity. However, the yearly FKF publication list (here the papers from publication year 2004) may be analyzed further by bibliometric methods.

The publications within the natural sciences disciplines are predominantly published as journal articles. Therefore, these areas of research are covered well by bibliographic databases like the Science Citation Index (SCI), offered by Thomson Scientific (the former ISI) as Web of Science (WoS). The following data were determined using the SCI under the host STN International (Fachinformationszentrum Karlsruhe).

At the date of searching (14.02.2005) the SCI covered 525 FKF papers from publication year 2004. A few papers published at the end of the year 2004 are not included. The FKF papers originated from 1485 different authors, that is about 3 authors per paper. They are distributed on 31 out of around 100 subject classification categories used by Thomson ISI to classify the journals covered by the SCI (see Tab. A).

The distribution of papers on SCI document types shows that about 97 percent are journal articles (see Tab. B). If other bibliographic databases like Chemical Abstracts (CAS) or Physics Abstracts (INSPEC) are conducted beside the SCI, only a few conference proceedings could be selected in addition. Some preprints could be found in the e-print archive (arXiv).

Table A: Distribution of FKF papers published in the year 2004 on ISI subject classification categories.

No.	#	ISI Subject Classification Category
1	228	PHYSICS, CONDENSED MATTER
2	76	MATERIALS SCIENCE, MULTIDISCIPLINARY
3	72	CHEMISTRY, PHYSICAL
4	67	CHEMISTRY, INORGANIC & NUCLEAR
5	65	PHYSICS, MULTIDISCIPLINARY
6	61	PHYSICS, APPLIED
7	25	CHEMISTRY, MULTIDISCIPLINARY
8	13	CRYSTALLOGRAPHY
9	13	METALLURGY & METALLURGICAL ENGINEERING
10	13	PHYSICS, ATOMIC, MOLECULAR & CHEMICAL
11	12	MATERIALS SCIENCE, CERAMICS
12	9	CHEMISTRY, ORGANIC
13	6	MULTIDISCIPLINARY SCIENCES
14	5	ENGINEERING, ELECTRICAL & ELECTRONIC
15	4	ELECTROCHEMISTRY
16	4	INSTRUMENTS & INSTRUMENTATION
17	4	MATERIALS SCIENCE, COATINGS & FILMS
18	4	OPTICS
19	2	BIOCHEMISTRY & MOLECULAR BIOLOGY
20	2	COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS
21	2	MECHANICS
22	2	PHYSICS, MATHEMATICAL
23	2	PHYSICS, NUCLEAR
24	2	POLYMER SCIENCE
25	1	CHEMISTRY, ANALYTICAL
26	1	CHEMISTRY, APPLIED
27	1	ENGINEERING, MULTIDISCIPLINARY
28	1	MATHEMATICS, APPLIED
29	1	NUCLEAR SCIENCE & TECHNOLOGY
30	1	PHYSICS, FLUIDS & PLASMAS
31	1	SPECTROSCOPY

Table B: Distribution of FKF papers published in the year 2004 on document types.

No.	%	ISI document type
1	100.0	JOURNAL
2	96.6	ARTICLE
3	1.5	EDITORIAL
4	0.6	ERRATA
5	0.6	GENERAL REVIEW
6	0.6	LETTER
7	0.2	CONFERENCE

Accordingly, the FKF papers are covered well by the SCI journals and can easily be found by everybody outside, who has access to the SCI or the WoS, respectively. Only a minor fraction of all FKF papers (like some non-journal conference proceedings) are not covered by the SCI.

The 525 FKF papers from 2004 were published in 120 different journals covered by the SCI. The distribution of papers on these journals is rather skew: About 50 percent of the papers were published in only 10 core journals and almost 25 percent were published in only two main journals (see Tab. C).

The physical oriented publications are far more concentrated in a few high impact journals than the chemistry publications are.

The references cited by the FKF papers 2004 were analyzed for the journals: The two journals mostly cited by the FKF authors are identical with the two top journals of FKF papers (Phys Rev B and Phys Rev Lett). An analysis of the reference publication years of the articles cited by the FKF papers shows that the two to three years old references are dominating.

Table C: Distribution of FKF papers published in the year 2004 on journal titles (top 30 only – plus Nature and Science – out of 120 journals).

No.	#	Journal Title (FKF Papers)
1	88	PHYSICAL REVIEW B
2	42	PHYSICAL REVIEW LETTERS
3	34	PHYSICA E – LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES
4	29	ZEITSCHRIFT FÜR ANORGANISCHE UND ALLGEMEINE CHEMIE
5	20	PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS
6	17	JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS
7	13	JOURNAL OF PHYSICS – CONDENSED MATTER
8	12	JOURNAL OF SOLID STATE CHEMISTRY
9	12	PHYSICA B – CONDENSED MATTER
10	10	SOLID STATE IONICS
11	9	JOURNAL OF ALLOYS AND COMPOUNDS
12	7	APPLIED PHYSICS LETTERS
13	7	PHYSICA STATUS SOLIDI B – BASIC RESEARCH
14	7	SOLID STATE SCIENCES
15	7	ZEITSCHRIFT FÜR NATURFORSCHUNG B – A JOURNAL OF CHEMICAL SCIENCES

No.	#	Journal Title (FKF Papers)
16	6	JETP LETTERS
17	6	JOURNAL OF PHYSICAL CHEMISTRY B
18	6	JOURNAL OF SUPERCONDUCTIVITY
19	6	JOURNAL OF THE AMERICAN CHEMICAL SOCIETY
20	6	SOLID STATE COMMUNICATIONS
21	6	SURFACE SCIENCE
22	5	ANGEWANDTE CHEMIE – INTERNATIONAL EDITION
23	5	INORGANIC CHEMISTRY
24	5	JOURNAL OF CRYSTAL GROWTH
25	4	APPLIED PHYSICS A – MATERIALS SCIENCE & PROCESSING
26	4	CARBON
27	4	CHEMICAL COMMUNICATIONS
28	4	INORGANIC MATERIALS
29	4	JOURNAL OF ELECTROCERAMICS
30	3	EUROPEAN PHYSICAL JOURNAL B
⋮	⋮	⋮
36	3	NATURE
61	2	NATURE MATERIALS
64	2	SCIENCE

PUBLICATIONS

JANUARY 1st – DECEMBER 31st, 2004

Abd-Elmeguid, M.M., B. Ni, D.I. Khomskii, R. Pocha, D. Johrendt, X. Wang and K. Syassen. Transition from Mott Insulator to Superconductor in GaNb₄Se₈ and GaTa₄Se₈ under High Pressure. *Physical Review Letters* **93**, 126403 (2004).

Achary, S.N., A.K. Tyagi and J. Köhler. Single crystal structural study of Sr₇Y₆F₃O(O): an example of anion-rich fluorite derived structure with a cuboctahedron cluster. *Materials Chemistry and Physics* **88**, 207–211 (2004).

Affronte, M., T. Guidi, R. Caciuffo, S. Carretta, G. Amoretti, J. Hinderer, I. Sheikin, A.A. Smith, R.E.P. Winpenny, J. van Slageren and D. Gatteschi. Level crossing in a molecular Cr₈ ring. *Journal of Magnetism and Magnetic Materials* **272-276**, 1050–1051 (2004).

Ahlert, S., L. Diekhöner, R. Šordan, K. Kern and M. Jansen. Surface step structure of Ag₁₃OsO₆, experimental evidence for Ag₁₃ cluster building blocks. *Chemical Communications* **2004**, 462–463 (2004).

Ahn, K., R.K. Kremer and A. Simon. Effect of Geometrical Frustration on the Magnetic Properties of the Triangular-Layer System Tb₂C₂I₂: A Neutron Diffraction Investigation. *Journal of Physics: Condensed Matter* **16**, S875–S881 (2004).

Ahrens, M. see Shikano, M.; Zinkevich, M.

Albergamo, F., J. Bossy, P. Averbuch, H. Schober and H.R. Glyde. Phonon-roton excitations in liquid ⁴He at negative pressures. *Physical Review Letters* **92**, 235301 (2004).

Albrecht, J., S. Leonhardt, H.-U. Habermeier, S. Bruck, R. Spolenak and H. Kronmüller. Enhanced flux line pinning by substrate induced defects in YBCO thin films. *Physica C* **404**, 18–21 (2004).

Albrecht, J., S. Soltan and H.-U. Habermeier. Hysteretic behavior of critical currents in superconductor-ferromagnet bilayers. *Physica C* **408-410**, 482–483 (2004).

Alves, E., C. Marques, V.S. Amaral, J.P. Araujo, G. Cristiani, H.-U. Habermeier and J.M. Vieira. Ion beam studies of single crystalline manganite thin films. *Nuclear Instruments & Methods in Physics Research B* **219-220**, 933–937 (2004).

Andergassen, S., T. Enss, V. Meden, W. Metzner, U. Schollwöck and K. Schönhammer. Functional renormalization group for Luttinger liquids with impurities. *Physical Review B* **70**, 075102 (2004).

Andergassen, S. see Honerkamp, C.

Andersen, O.K. see Boeri, L.; Mazin, I.I.; Pavarini, E.

Arend, N., R. Gähler, T. Keller, R. Georgii, T. Hils and P. Böni. Classical and quantum-mechanical picture of NRSE – measuring the longitudinal Stern–Gerlach effect by means of TOF methods. *Physics Letters A* **327**, 21–27 (2004).

Aristov, D.N. and M.N. Kiselev. Ferrimagnetic mixed-spin ladders in weak- and strong-coupling limits. *Physical Review B* **70**, 224402 (2004).

Aristov, D.N. and R. Zeyher. Hall conductivity in unconventional charge-density-wave systems. *Physical Review B* **70**, 212511 (2004).

Arumugam, N., E.-M. Peters and M. Jansen. Synthesis and structure of sodium tetraoxo nitrido molybdate, Na₅MoO₄N. *Zeitschrift für Naturforschung B* **59**, 274–276 (2004).

Ast, C.R. and H. Höchst. High-resolution photoemission mapping of the three-dimensional band structure of Bi(111). *Physical Review B* **70**, 245122 (2004).

Awirothananon, S., W.D. Sheng, A. Babinski, S. Studenikin, S. Raymond, A. Sachrajda, M. Potemski, S. Fafard, G. Ortner and M. Bayer. Electronic and structural properties of interdiffused self-assembled quantum dots from magneto-photoluminescence. *Japanese Journal of Applied Physics* **43**, 2088–2092 (2004).

- Azbel, M.Y. Universal mortality law and immortality. *Physica A* **341**, 629–637 (2004).
- Babinski, A., S. Awirothananon, S. Raymond, S. Studenikin, P. Hawrylak, S.J. Cheng, W. Sheng, Z. Wasilewski, M. Potemski and A. Sachrajda. Photoluminescence excitation spectroscopy of InAs/GaAs quantum dots in high magnetic field. *Physica E* **22**, 603–606 (2004).
- Babinski, A., S. Raymond, Z. Wasilewski, J. Lapointe and M. Potemski. Localization of excitons in the wetting layer accompanying self-assembled InAs/GaAs quantum dots. *Acta Physica Polonica A* **105**, 547–552 (2004).
- Babizhetskyy, V., R. Guérin and A. Simon. A new ternary arsenide LaNi_5As_3 : Preparation and crystal structure. *Zeitschrift für Naturforschung B* **59**, 1103–1108 (2004).
- Babizhetskyy, V., H.J. Mattausch and A. Simon. Crystal structure of lanthanum borocarbide, $\text{La}_{10}\text{B}_9\text{C}_{12}$. *Zeitschrift für Kristallographie: New Crystal Structures* **219**, 11–12 (2004).
- Babizhetskyy, V., O. Isnard and K. Hiebl. Intermediate valence behaviour of the ternary cerium-nickel-phosphide $\text{Ce}_{20}\text{Ni}_{42}\text{P}_{30}$. *Physica B* **352**, 42–47 (2004).
- Babizhetskyy, V.S., I.V. Veremchuk, N.F. Chaban and Y.B. Kuz'ma. Solid Solution of Ni in ErB_4 and its crystal structure. *Journal of Alloys and Compounds* **377**, 117–120 (2004).
- Babizhetskyy, V. see Oryshchyn, S.; Roger, J.; Veremchuk, I.V.
- Baeurle, S.A. Grand canonical auxiliary field Monte Carlo: a new technique for simulating open systems at high density. *Computer Physics Communications* **157**, 201–206 (2004).
- Bata, J. and P. Horsch. CE correlations in a spin-orbital model for half-doped manganites. *Journal of Magnetism and Magnetic Materials* **272-276**, 1794–1795 (2004).
- Bata, J., P. Horsch and F. Mack. Manganites at quarter filling: Role of Jahn-Teller interactions. *Physical Review B* **69**, 094415 (2004).
- Bata, J. and A.M. Oleś. Spin excitations in ferromagnetic manganites with orbital order. *New Journal of Physics* **6**, 190 (2004).
- Balasubramanian, K., M. Burghard and K. Kern. Carbon Nanotubes: Electrochemical Modification. In: *Dekker Encyclopedia of Nanoscience and Nanotechnology*, 507–517 (2004); J.A. Schwarz, C.I. Contescu, K. Putyera (Eds.). Dekker, New York, USA.
- Balasubramanian, K., Y.W. Fan, M. Burghard, K. Kern, M. Friedrich, U. Wannek and A. Mews. Photoelectronic transport imaging of individual semiconducting carbon nanotubes. *Applied Physics Letters* **84**, 2400–2402 (2004).
- Balasubramanian, K., R. Šordan, M. Burghard and K. Kern. A selective electrochemical approach to carbon nanotube field-effect transistors. *Nano Letters* **4**, 827–830 (2004).
- Balaya, P., V.K. Shrikhande, G.P. Kothiyal and P.S. Goyal. Dielectric and conductivity studies on lead silicate glasses having mixed alkali and alkaline earth metal oxides. *Current Science* **86**, 553–556 (2004).
- Balaya, P. see Li, H.
- Balog, P. see Orosel, D.
- Balthes, E., A. Nothardt, P. Wyder and D. Schweitzer. Electron-electron correlations in $(\text{BEDT-TTF})_2\text{I}_3$ organic superconductors. *Materials Science – Poland* **22**, 285–298 (2004).
- Barth, J. see Clair, S.; Dmitriev, A.; Lingenfelder, M.A.; Pascual, J.I.; Stepanow, S.; Vladimirova, M.
- Baruah, T., J. Kortus, M.R. Pederson, R. Wesolowski, J.T. Haraldsen, J.L. Musfeldt, J.M. North, D. Zipse and N.S. Dalal. Understanding the electronic structure, optical, and vibrational properties of the Fe_8Br_8 single molecule magnet. *Physical Review B* **70**, 214410 (2004).

Baumann, F., J. Fleig and J. Maier. Microelectrode Impedance Study of SOFC Cathode Materials: $\text{La}_{0.6}\text{Sr}_{0.4}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_{3-\delta}$ and $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$. In: Proceedings of the 6th European SOFC Forum; M. Mogensen (Ed.). Lucerne, Switzerland, 2004. European SOFC Forum **2004**, 1241–1252 (2004). European Fuel Cell Forum, Oberrohrdorf, Switzerland.

Bayrakci, S.P., C. Bernhard, D.P. Chen, B. Keimer, R.K. Kremer, P. Lemmens, C.T. Lin, C. Niedermayer and J. Stempfer. Bulk antiferromagnetism in $\text{Na}_{0.82}\text{CoO}_2$ single crystals. *Physical Review B* **69**, 100410(R) (2004).

Bayrakci, S. see Stempfer, J.

Beaujour, J.M.L., G.J. Bowden, A.A. Zhukov, J.D. O'Neill, B.D. Rainford, P.A.J. de Groot, R.C.C. Ward, M.R. Wells and A.G.M. Jansen. Giant magneto and anisotropic resistance in an epitaxial (110) $\text{DyFe}_2/\text{YFe}_2$ multilayer film. *Journal of Magnetism and Magnetic Materials* **272-276**, 1943–1944 (2004).

Bel, R., K. Behnia, C. Proust, P. van der Linden, D. Maude and S.I. Vedeneev. Test of the Wiedemann-Franz law in an optimally doped cuprate. *Physical Review Letters* **92**, 177003 (2004).

Bel, R., K. Behnia, C. Proust, P. van der Linden, D. Maude and S.I. Vedeneev. Transport of charge and entropy in the normal state of an optimally doped cuprate at $T=0$ limit. *Physica C* **408-410**, 703–704 (2004).

Bernhard, C., A.V. Boris, N.N. Kovaleva, G. Khaliullin, A. Pimenov, L. Yu, D.P. Chen, C.T. Lin and B. Keimer. Charge Ordering and Magnetopolarons in $\text{Na}_{0.82}\text{CoO}_2$. *Physical Review Letters* **93**, 167003 (2004).

Bernhard, C., T. Holden, A.V. Boris, N.N. Kovaleva, A.V. Pimenov, J. Humlíček, C. Ulrich, C.T. Lin and J.L. Tallon. Anomalous oxygen-isotope effect on the in-plane far-infrared conductivity of detwinned $\text{YBa}_2\text{Cu}_3^{16,18}\text{O}_{6.9}$. *Physical Review B* **69**, 052502 (2004).

Bernhard, C., J. Humlíček and B. Keimer. Far-infrared ellipsometry using a synchrotron light source – the dielectric response of the cuprate high T_c superconductors. *Thin Solid Films* **455-456**, 143–149 (2004).

Bernhard, C. see Bayrakci, S.P.; Boris, A.V.; Hinkov, V.; Holden, T.; Humlíček, J.; Kovaleva, N.N.; Lebon, A.; Liang, B.; Nachtrab, T.; Stempfer, J.

Bhattacharyya, A., M. Dollé and J. Maier. Improved Li-Battery Electrolytes by Heterogeneous Doping of Nonaqueous Li-Salt Solutions. *Electrochemical and Solid-State Letters* **7**, A432–A434 (2004).

Bhattacharyya, A.J. and J. Maier. Second phase effects on the conductivity of non-aqueous salt solutions: ‘Soggy sand electrolytes’. *Advanced Materials* **16**, 811–814 (2004).

Bianconi, A., S. Agrestini and A. Bussmann-Holder. The T_c amplification by ‘shape resonance’ in doped MgB_2 . *Journal of Superconductivity* **17**, 205–209 (2004).

Bittner, A. see Knez, M.; Wu, X.C.

Block, T., M.J. Carey, B.A. Gurney and O. Jepsen. Band-structure calculations of the half-metallic ferromagnetism and structural stability of full- and half-Heusler phases. *Physical Review B* **70**, 205114 (2004).

Boeri, L., J. Kortus and O.K. Andersen. Three-Dimensional MgB_2 -type Superconductivity in Hole-Doped Diamond. *Physical Review Letters* **93**, 237002 (2004).

Boris, A.V., N.N. Kovaleva, O.V. Dolgov, T. Holden, C.T. Lin, B. Keimer and C. Bernhard. In-Plane Spectral Weight Shift of Charge Carriers in $\text{YBa}_2\text{Cu}_3\text{O}_{6.9}$. *Science* **304**, 708–710 (2004).

Boris, A.V. see Bernhard, C.; Holden, T.; Kovaleva, N.N.; Lebon, A.

Borisenko, S.V., T.K. Kim, A.A. Kordyuk, M. Knupfer, J. Fink, J.E. Gayone, P. Hofmann, H. Berger, B. Liang, A. Maljuk and C.T. Lin. Excitation energy dependence of the ARPES intensity in Pb-doped and pristine $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$. *Physica C* **417**, 1–6 (2004).

Borisenko, S.V., A.A. Kordyuk, A. Koitzsch, M. Knupfer, J. Fink, H. Berger and C.T. Lin. Superconductors: Time-reversal symmetry breaking?. *Nature* **431**, 1–2 (2004).

Bringmann, G., D. Feineis, R. God, K. Maksimenka, J. Mühlbacher, K. Messer, M. Münchbach, K.P. Gulden, E.-M. Peters and K. Peters. Resolution and chiroptical properties of the neurotoxin 1-trichloromethyl-1,2,3,4-tetrahydro-beta-carboline (TaClo) and related compounds: quantum chemical CD calculations and X-ray diffraction analysis. *Tetrahedron* **60**, 8143–8151 (2004).

Bringmann, G., R.M. Pfeifer, P. Schreiber, K. Hartner, N. Kocher, R. Brun, K. Peters, E.-M. Peters and M. Breuning. Synthesis and antitrypanosomal activity of 2-aminomethyl-1-(2-oxophenyl)naphthalenes. *Tetrahedron* **60**, 6335–6344 (2004).

de Brion, S., G. Chouteau, A. Janossy, E.R. Buzin and W. Prellier. Magnetic phase diagram in the charge-ordered $\text{Pr}_{0.5}\text{Ca}_{0.5}\text{MnO}_3$ strained thin films. *Journal of Magnetism and Magnetic Materials* **272-276**, 450–451 (2004).

Bryja, L., M. Kubisa, K. Ryczko, J. Misiewicz, R. Stępniewski, M. Byszewski, M. Potemski, D. Reuter and A. Wieck. Magnetic-field-induced excitons in photoluminescence from heavily doped p-type $\text{Ga}_{1-x}\text{Al}_x\text{As}/\text{GaAs}$ single heterojunction. *Physica B* **346-347**, 442–445 (2004).

Budantsev, M.V., R.A. Lavrov, A.G. Pogosov, A.E. Plotnikov, A.K. Bakarov, A.I. Toropov, D.K. Maude and J.C. Portal. Mesoscopic fluctuations of thermopower in a periodic antidot lattice. *JETP Letters* **79**, 166–170 (2004).

Bugoslavsky, Y., Y. Miyoshi, G.K. Perkins, A.D. Caplin, L.F. Cohen, H.Y. Zhai, H.M. Christen, A.V. Pogrebnyakov, X.X. Xi and O.V. Dolgov. Superconducting gap structure and pinning in disordered MgB_2 films. *Superconductor Science and Technology* **17**, S350–S354 (2004).

Bulusheva, L.G., A. Okotrub, U. Dettlaff-Weglikowska, S. Roth and M.I. Heggie. Electronic structure and arrangement of purified HiPco carbon nanotubes. *Carbon* **42**, 1095–1098 (2004).

Bulusheva, L.G., A.V. Okotrub, T.A. Duda, E.D. Obraztsova, A.L. Chuvilin, E.M. Pazhetnov, A.I. Boronin and U. Dettlaff-Weglikowska. Electronic Structure of the Fluorinated HiPco Nanotubes. In: *Nanoengineered Nanofibrous Materials*; S. Guceri, Y.G. Gogotsi, V. Kuznetsov (Eds.). NATO Science Series II: Mathematics, Physics and Chemistry **169**, 145–151 (2004). Kluwer Academic Publishers, Dordrecht, The Netherlands.

Burghard, M. see Balasubramanian, K.; Kaiser, A.B.; Paredes, J.I.; Schlecht, U.; Vitali, L.

Bussmann-Holder, A. Lattice and charge inhomogeneities in transition metal oxides. *Journal of Physics and Chemistry of Solids* **65**, 1455–1460 (2004).

Bussmann-Holder, A. Raising the superconducting transition temperature in cuprates within a two-component scenario. *Current Applied Physics* **4**, 501–504 (2004).

Bussmann-Holder, A. and A.R. Bishop. Inhomogeneity, local mode formation, and the breakdown of the Bloch theorem in complex charge transfer systems as a consequence of discrete breather formation. *Physical Review B* **70**, 184303 (2004).

Bussmann-Holder, A. and A.R. Bishop. Intrinsic local modes and heterogeneity in relaxor ferroelectrics. *Journal of Physics: Condensed Matter* **16**, L313–L320 (2004).

Bussmann-Holder, A. and A.R. Bishop. Quantum paraelectricity versus ferroelectricity: Nonlinear polarizability model. *Physical Review B* **70**, 024104 (2004).

Bussmann-Holder, A. and N. Dalal. Hydrogen bonds in a polarizable medium: Implications for the isotope effect, the phase transition mechanism and quantum effects. *Ferroelectrics* **302**, 263–267 (2004).

Bussmann-Holder, A. and R. Micnas. Enhancing T_c within phonon mediated coexistence of s+d wave superconductivity in cuprates. *Physica C* **408-410**, 222–223 (2004).

Bussmann-Holder, A., R. Micnas and A.R. Bishop. Enhancements of the superconducting transition temperature within the two-band model. *The European Physical Journal B* **37**, 345–348 (2004).

Bussmann-Holder, A., R. Micnas and A.R. Bishop. Polaronic origin of the isotope effect on the London penetration depth in high-temperature superconducting oxides. *Philosophical Magazine* **84**, 1257–1264 (2004).

Bussmann-Holder, A. see Bianconi, A.; Gulacsi, M.; Micnas, R.

Bychkov, Y., C. Faugeras and G. Martinez. Multidielectric response of a two-dimensional electron gas in tilted magnetic fields. *Physical Review B* **70**, 085306 (2004).

Bykov, A.A., D.V. Nomokonov, A.K. Bakarov, A.V. Goran, O. Estibals and J.C. Portal. Influence of Fermi-system chirality on the temperature dependence of the Aharonov-Bohm effect. *JETP Letters* **79**, 28–31 (2004).

Byszewski, M., D. Plantier, M.L. Sadowski, M. Potemski, A. Sachrajda, Z. Wilamowski and G. Karczewski. Optical studies of Mn²⁺ spin resonance in (Cd,Mn)Te quantum wells. *Physica E* **22**, 652–655 (2004).

Cador, O., D. Gatteschi, R. Sessoli, F.K. Larsen, J. Overgaard, A.L. Barra, S.J. Teat, G.A. Timco and R.E.P. Winpenny. The magnetic Möbius strip: Synthesis, structure, and magnetic studies of odd-numbered antiferromagnetically coupled wheels. *Angewandte Chemie International Edition* **43**, 5196–5200 (2004).

Caimi, G., L. Degiorgi, N.N. Kovaleva, P. Lemmens and F.C. Chou. Infrared optical properties of the spin-1/2 quantum magnet TiOCl. *Physical Review B* **69**, 125108 (2004).

Caimi, G., L. Degiorgi, P. Lemmens and F.C. Chou. Analysis of the phonon spectrum in the titanium oxyhalide TiOBr. *Journal of Physics: Condensed Matter* **16**, 5583–5596 (2004).

Čančarević, Z.P., J.C. Schön and M. Jansen. Structure prediction of solids: Heuristic algorithms for local optimization on Hartree-Fock level. *Progress in Advanced Materials and Processes Materials Science Forum* **453-454**, 71–76 (2004).

Čančarević, Z.P. see Fischer, D.; Schön, J.C.

Camacho, J., K. Parlinski, A. Cantarero and K. Syassen. Vibrational properties of the high-pressure Cmcm phase of ZnTe. *Physical Review B* **70**, 033205 (2004).

Cardona, M. Conference Report 11th International Conference on High-Pressure Semiconductor Physics (HPSP-II), Berkeley, USA, 2-5 August 2004. *physica status solidi (b)* **241**, 2655–2657 (2004).

Cardona, M. Effects of pressure on the phonon-phonon and electron-phonon interactions in semiconductors. *physica status solidi (b)* **241**, 3128–3137 (2004).

Cardona, M. Evangelos Anastassakis Scientist, Colleague and Friend. In: Symposium dedicated to the memory of Prof. E. Anastassakis, Athens, Greece (2002), arXiv:cond-mat/0204606. (2004); M. Cardona, W. Richter, Y.S. Raptis (Eds.). National Technical University, University of Athens.

Cardona, M. Phonon widths versus pressure. *High Pressure Research* **24**, 17–23 (2004).

Cardona, M. Wissenschaftliche Beziehungen zwischen Katalonien-Deutschland – besonders mit Baden Württemberg. In: *Katalonien – Tradition und Moderne*, (2004); R. Sevilla, M. Domingo, J. Jane (Eds.). Horlemann Verlag, Bad Honef, Germany.

Cardona, M. and W. Marx. Verwechselt, vergessen, wieder gefunden – Referenzen: das fehlerhafte Gedächtnis der Wissenschaft(ler). *Physik Journal* **3**, 1–3 (2004).

Cardona, M., T.A. Meyer and M.L.W. Thewalt. Temperature dependence of the energy gap of semiconductors in the low-temperature limit. *Physical Review Letters* **92**, 196403 (2004).

Cardona, M. see Karaiskaj, D.; Kremer, R.K.; Kulda, J.; Manjón, F.; Marx, W.; Meyer, T.A.; Sanati, M.; Serrano, J.; Tallman, R.E.

Carrillo-Cabrera, W., J. Curda, K. Peters, M. Kohout and H.G. von Schnering. Pentalanthanium ethenide(4-) digermanide(4-), La₅(C₂)Ge₂. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 2186–2190 (2004).

Casanova, F., A. Labarta, X. Batlle, J. Marcos, L. Mañosa, A. Planes and S. de Brion. Effect of a magnetic field on the magnetostructural phase transition in Gd₅(Si_xGe_{1-x})₄. *Physical Review B* **69**, 104416 (2004).

Cech, J. see Pötschke, P.; Roth, S.

Chen, D.P., H.C. Chen, A. Maljuk, A. Kulakov, H. Zhang, P. Lemmens and C.T. Lin. Single-crystal growth and investigation of Na_xCoO_2 and $\text{Na}_x\text{CoO}_2 \cdot y\text{H}_2\text{O}$. *Physical Review B* **70**, 024506 (2004).

Chen, D. see Bayrakci, S.P.; Bernhard, C.; Hinkov, V.

Chen, F., B. Gorshunov, G. Cristiani, H.-U. Habermeier and M. Dressel. Suppression of Superconductivity in YBCO/LCMO Superlattices. *Solid State Communications* **131**, 295–299 (2004).

Cheng, S.J., W. Sheng, P. Hawrylak, S. Raymond, S. Studenikin, A. Sachrajda, Z. Wasilewski, A. Babinski, M. Potemski, G. Ortner and M. Bayer. Electron-hole complexes in self-assembled quantum dots in strong magnetic fields. *Physica E* **21**, 211–214 (2004).

Chiu, P.W., M. Kaempgen and S. Roth. Band-structure modulation in carbon nanotube T junctions. *Physical Review Letters* **92**, 246802 (2004).

Choi, K.-Y., P. Lemmens, G. Güntherodt, Y.G. Pashkevich, V.P. Gnezdilov, P. Reutler, B. Büchner and A. Revcolevschi. Phonon anomalies in lightly-doped manganites $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ ($x=0.09$ and 0.11) near the CAF/FI phase boundary. *Journal of Magnetism and Magnetic Materials* **272-276**, e305–e306 (2004).

Choi, K.-Y., S.A. Zvyagin, G. Cao and P. Lemmens. Coexistence of dimerization and long-range magnetic order in the frustrated spin-chain system LiCu_2O_2 : Inelastic light scattering study. *Physical Review B* **69**, 104421 (2004).

Choi, K.-Y., P. Lemmens, J. Pommer, A. Ionescu, G. Güntherodt, S. Hiroya, H. Sakurai, K. Yoshimura, A. Matsuo and K. Kindo. Random magnetism in the frustrated triangular spin ladder $\text{KCu}_5\text{V}_3\text{O}_{13}$. *Physical Review B* **70**, 174417 (2004).

Christ, A., S. Linden, T. Zentgraf, K. Schubert, D. Nau, S.G. Tikhodeev, N.A. Gippius, J. Kuhl, F. Schindler, A.W. Holleitner, J. Stehr, J. Crewett, J. Lupton, T. Klar, U. Scherf, J. Feldmann, C. Dahmen, G. von Plessen and H. Giessen. Optical properties of planar metallo-dielectric photonic crystals. In: *Molecular Clusters of the Main Group Elements*, Chapter 5 (2004); K. Busch, S. Lölkes, R. B. Wehrspohn, H. Föll (Eds.). WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany.

Christ, A., T. Zentgraf, J. Kuhl, S.G. Tikhodeev, N.A. Gippius and H. Giessen. Optical properties of planar metallic photonic crystal structures: Experiment and theory. *Physical Review B* **70**, 125113 (2004).

Christ, A. see Giessen, H.; Nau, D.; Neuberth, U.; Zentgraf, T.

Clair, S., S. Pons, A.P. Seitsonen, H. Brune, K. Kern and J.V. Barth. STM study of terephthalic acid self-assembly on Au(111): hydrogen-bonded sheets on an inhomogeneous substrate. *Journal of Physical Chemistry B* **108**, 14585–14590 (2004).

Clémancey, M., H. Mayaffre, M.-H. Julien, C. Berthier, P. Ségransan, A. Hassan, A.G.M. Jansen, I. Sheikin, B. Chiari, A. Cinti and O. Piovesana. Structural and magnetic properties of methylated CuHpCl . *Journal of Magnetism and Magnetic Materials* **272-276**, 962–963 (2004).

Cornia, A., A.C. Fabretti, P. Garrisi, C. Mortalò, D. Bonacchi, D. Gatteschi, R. Sessoli, L. Sorace, W. Wernsdorfer and A.L. Barra. Energy-barrier enhancement by ligand substitution in tetrairon(III) single-molecule magnets. *Angewandte Chemie International Edition* **43**, 1136–1139 (2004).

Costantini, G., A. Rastelli, C. Manzano, R. Songmuang, O.G. Schmidt, K. Kern and H. von Känel. Universal shapes of self-organized semiconductor quantum dots: Striking similarities between $\text{InAs}/\text{GaAs}(001)$ and $\text{Ge}/\text{Si}(001)$. *Applied Physics Letters* **85**, 5673–5675 (2004).

Costantini, G. see Montalenti, F.; Rastelli, A.

Curda, J., E.-M. Peters and M. Jansen. Metaarsenate(V) anion of novel constitution in AgAsO_3 . *Zeitschrift für anorganische und allgemeine Chemie* **630**, 491–494 (2004).

Curda, J., E.-M. Peters, W. Klein and M. Jansen. Crystal structure of potassium disilver arsenate(V), KAg_2AsO_4 . *Zeitschrift für Kristallographie: New Crystal Structures* **219**, 345–345 (2004).

Daghero, D., R.S. Gonnelli, G.A. Ummarino, O.V. Dolgov, J. Kortus, A.A. Golubov and S.V. Shulga. The determination of the electron–phonon interaction from tunneling data in the two-band superconductor MgB_2 . *Physica C* **408-410**, 353–354 (2004).

Dahan, P. and I.D. Vagner. Giant quantum oscillations of nuclear spin relaxation rate in QHE systems with magnetic impurities. *Physica B* **346-347**, 465–469 (2004).

Damljanovic, V. see Matveev, A.T.

Dei, A., D. Gatteschi, C. Sangregorio, L. Sorace and M.G.F. Vaz. Antiferromagnetic exchange in meta-phenylene bridged bis(tris-o-aminosemiquinonato)metal complexes. *Journal of Magnetism and Magnetic Materials* **272-276**, 1083–1084 (2004).

Deisenhofer, J., H.A.K. von Nidda, A. Loidl, K. Ahn, R.K. Kremer and A. Simon. Spin fluctuations in the quasi-two-dimensional Heisenberg ferromagnet GdI_2 studied by electron spin resonance. *Physical Review B* **69**, 104407 (2004).

Deiseroth, H.J., C. Reiner, K. Xhaxhiu, M. Schlosser and L. Kienle. X-ray and transmission electron microscopy investigations of the new solids $\text{In}_5\text{S}_5\text{Cl}$, $\text{In}_5\text{Se}_5\text{Cl}$, $\text{In}_5\text{S}_5\text{Br}$, and $\text{In}_5\text{Se}_5\text{Br}$. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 2319–2328 (2004).

Deneke, C., N.Y. Jin-Phillipp, I. Loa and O.G. Schmidt. Radial superlattices and single nanoreactors. *Applied Physics Letters* **84**, 4475–4477 (2004).

Deneke, C., S. Kiravittya and O.G. Schmidt. Accurate positioning of semiconductor quantum dots and nanotubes. *Nanofair 2004 New Ideas for Industry* **2004**, 25 (2004).

Deneke, C. and O.G. Schmidt. Lithographic positioning, areal density increase and fluid transport in rolled-up nanotubes. *Physica E* **23**, 269–273 (2004).

Deneke, C. and O.G. Schmidt. Real-time formation, accurate positioning, and fluid filling of single rolled-up nanotubes. *Applied Physics Letters* **85**, 2914–2916 (2004).

Deng, S., A. Simon and J. Köhler. A ‘flat/steep band’ scenario in momentum space. *Journal of Superconductivity* **17**, 227–231 (2004).

Denker, U., H. Sigg and O.G. Schmidt. Intermixing in Ge hut cluster islands. *Applied Surface Science* **224**, 127–133 (2004).

Desrat, W., F. Giazzotto, V. Pellegrini, F. Beltram, F. Capotondi, G. Biasiol, L. Sorba and D.K. Maude. Magnetotransport in high-g-factor low-density two-dimensional electron systems confined in $\text{In}_{0.75}\text{Ga}_{0.25}\text{As}/\text{In}_{0.75}\text{Al}_{0.25}\text{As}$ quantum wells. *Physical Review B* **69**, 245324 (2004).

Dettlaff-Weglikowska, U. see Bulusheva, L.G.; Haluska, M.; Karachevtsev, V.A.; Skákalová, V.

Diaz, S., S. de Brion, M. Holzappel, G. Chouteau and P. Strobel. Study of competitive magnetic interactions in the spinel compounds GeNi_2O_4 , GeCo_2O_4 . *Physica B* **346-347**, 146–149 (2004).

Dietsche, W. see Kulik, L.V.; Lok, J.G.S.; Muraki, K.; Stern, O.; Tovstonog, S.V.; Wiersma, R.D.

Dietzel, P.D.C. and J. Jansen. Synthesis and Crystal Structures of Tris-(3,5-bis(trifluoromethyl)phenyl)arsine oxide at 293 and 100 K and the Localisation of the Trifluoromethyl Groups. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 1573–1577 (2004).

Dietzel, P.D.C. and M. Jansen. Synthesis and crystal structure of tris-[3,5-bis(trifluoromethyl)phenyl]arsine. *Zeitschrift für Naturforschung B* **59**, 345–347 (2004).

Dietzel, P.D.C., R.K. Kremer and M. Jansen. Tetraorganylammonium superoxide compounds: Close to unperturbed superoxide ions in the solid state. *Journal of the American Chemical Society* **126**, 4689–4696 (2004).

Dinnebier, R.E., N. Sofina and M. Jansen. The Structure of the High Temperature Modification of Lithium Triflate ($\gamma\text{-LiSO}_3\text{CF}_3$). *Zeitschrift für anorganische und allgemeine Chemie* **630**, 1613–1616 (2004).

Dinnebier, R.E., S. Vensky, M. Jansen and J. Hanson. High temperature phases and decomposition products of $\text{M}_2\text{C}_2\text{O}_4$, $\text{M} = [\text{K}, \text{Rb}, \text{Cs}]$. *Zeitschrift für Kristallographie, Supplement* **21**, 104–104 (2004).

Dinnebier, R.E. see Hönnerscheid, A.; Karpov, A.; Mühle, C.; Vensky, S.

Dmitriev, A., H. Spillmann, M. Lingenfelder, N. Lin, J.V. Barth and K. Kern. Design of extended surface-supported chiral metal-organic arrays comprising mononuclear iron centers. *Langmuir* **20**, 4799–4801 (2004).

Dobe, C., C. Noble, G. Carver, P.L.W. Tregenna-Piggott, G.J. McIntyre, A.L. Barra, A. Neels, S. Janssen and F. Juranyi. Electronic and molecular structure of high-spin d^4 complexes: Experimental and theoretical study of the $[\text{Cr}(\text{D}_2\text{O})_6]^{2+}$ cation in Tutton's salts. *Journal of the American Chemical Society* **126**, 16639–16652 (2004).

Dolgov, O. see Boris, A.V.; Bugoslavsky, Y.; Daghero, D.; Mazin, I.I.; Yanson, I.K.

Dressel, M., N. Drichko, J. Schlueter, O. Bogdanova, E. Zhilyaeva, R. Lyubovskaya, A. Greco and J. Merino. Influence of electronic correlations and band-filling on the charge-ordering effects in two-dimensional organic conductors investigated by infrared spectroscopy. *Journal de Physique IV* **114**, 183–189 (2004).

Dubroka, A., G. Cristiani, H.-U. Habermeier and J. Humlíček. Infrared study of $\text{YBa}_2\text{Cu}_3\text{O}_7/\text{La}_{0.67}\text{Ca}_{0.33}\text{MnO}_3$ superlattices. *Thin Solid Films* **455-456**, 172–176 (2004).

Duclère, J.R., M. Guilloux-Viry, V. Bouquet, A. Perrin and B. Gautier. $\text{SrBi}_2\text{Nb}_2\text{O}_9$ thin films epitaxially grown on Pt epitaxial bottom layers: structural characteristics and nanoscale characterization of the ferroelectric behaviour by AFM. *Annalen der Physik* **13**, 35–38 (2004).

Duesberg, G.S., R. Graupner, P. Downes, A. Minett, L. Ley, S. Roth and N. Nicoloso. Hydrothermal functionalisation of single-walled carbon nanotubes. *Synthetic Metals* **142**, 263–266 (2004).

Dumas, J., H. Guyot, H. Balaska, J. Marcus, D. Vignolles, I. Sheikin, A. Audouard, L. Brossard and C. Schlenker. High magnetic field studies of the charge density wave state of the quasi-two-dimensional conductor $\text{KMO}_6\text{O}_{17}$. *Physica B* **346-347**, 314–318 (2004).

Eglitis, R.I., E.A. Kotomin and G. Borstel. Large-scale computer modelling of point defects, polarons, and perovskite solid solutions. *Defect and Diffusion Forum* **226-228**, 169–180 (2004).

Eglitis, R.I., S. Piskunov, E. Heifets, E.A. Kotomin and G. Borstel. Ab initio study of the SrTiO_3 , BaTiO_3 and PbTiO_3 (001) surfaces. *Ceramics International* **30**, 1989–1992 (2004).

Einzel, D. and D. Manske. Electronic Raman response in anisotropic metals. *Physical Review B* **70**, 172507 (2004).

Enders, A., D. Repetto, T.Y. Lee and K. Kern. Perpendicular coupling and spin reorientation transition in fcc Fe/Cu/Fe trilayers. *Journal of Magnetism and Magnetic Materials, Supplement* **272-276**, E959–E961 (2004).

Engalytcheff, A., M. Kolberg, A.L. Barra, K.K. Andersson and B. Tilquin. The use of multi-frequency EPR techniques to identify the radicals produced in irradiated beta-blockers. *Free Radical Research* **38**, 59–66 (2004).

Enss, T., M. Henkel, A. Picone and U. Schollwöck. Ageing phenomena without detailed balance: the contact process. *Journal of Physics A* **37**, 10479–10495 (2004).

Enss, T. see Andergassen, S.; Honerkamp, C.

Estibals, O., Z.D. Kvon, G.M. Gusev, G. Arnaud and J.C. Portal. Magnetoconductivity of a spin-polarized two-dimensional electron gas near the (111) silicon surface. *Physica E* **22**, 446–449 (2004).

Etrillard, J., L. Bourgeois, P. Bourges, B. Liang, C.T. Lin and B. Keimer. Low-frequency structural dynamics in the incommensurate composite crystal $\text{Bi}_2\text{Sr}_2\text{CuO}_{6+\delta}$. *Europhysics Letters* **66**, 246–252 (2004).

Evarestov, R.A., E.A. Kotomin, D. Fuks, J. Felsteiner and J. Maier. Ab initio calculations of the LaMnO_3 surface, properties. *Applied Surface Science* **238**, 457–463 (2004).

Faugeras, C., G. Martinez, F. Capotondi, G. Biasiol and L. Sorba. Electron-phonon coupling in the two-phonon mode ternary alloy $\text{Al}_{0.25}\text{In}_{0.75}\text{As}/\text{Ga}_{0.25}\text{In}_{0.75}\text{As}$ quantum well. *Europhysics Letters* **67**, 1031–1037 (2004).

Faugeras, C., G. Martinez, A. Riedel, R. Hey and K.J. Friedland. Electron-phonon interaction in a doped GaAs quantum well. *Physica E* **22**, 586–589 (2004).

Faugeras, C., G. Martinez, A. Riedel, R. Hey, K.J. Friedland and Y. Bychkov. Fröhlich mass in GaAs-based structures. *Physical Review Letters* **92**, 107403 (2004).

Faugeras, C., D.K. Maude, G. Martinez, L.B. Rigal, C. Proust, K.J. Friedland, R. Hey and K.H. Ploog. Magnetophonon resonance in high-density high-mobility quantum well systems. *Physical Review B* **69**, 073405 (2004).

Fedorych, O.M., Z. Wilamowski, M. Potemski, M. Byszewski and J. Sadowski. Magnetic order in semiconducting, ferromagnetic $\text{Ga}_{1-x}\text{Mn}_x\text{As}$. *Semiconductor Science and Technology* **19**, S492–S493 (2004).

Feldbacher, M., K. Held and F.F. Assaad. Projective Quantum Monte Carlo Method for the Anderson Impurity Model and its Application to Dynamical Mean Field Theory. *Physical Review Letters* **93**, 136405 (2004).

Feng, Y., G. Yan, Y. Zhao, C.F. Liu, X.H. Liu, P.X. Zhang, L. Zhou, A. Sulpice, E. Mossang and B. Hebral. Preparation and enhancement of critical current density in MgB_2 wires and tapes. *Journal of Physics: Condensed Matter* **16**, 1803–1811 (2004).

Ferrer-Anglada, N., V. Gomis, Z. El-Hachemi, M. Kaempgen and S. Roth. Conducting Transparent Thin Films Based on Carbon Nanotubes – Conducting Polymers. In: Proceedings of the XVIIIth International Winterschool/Euroconference on Electronic Properties of Novel Materials; H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds.). Kirchberg, Tirol, Austria, 2004. *AIP Conference Proceedings* **723**, 591–594 (2004). American Institute of Physics, New York, USA.

Ferrer-Anglada, N., M. Kaempgen, V. Skákalová, U. Dettlaf-Weglikowska and S. Roth. Synthesis and characterization of carbon nanotube-conducting polymer thin films. *Diamond and Related Materials* **13**, 256–260 (2004).

Ferretti, A.M., A.L. Barra, L. Forni, C. Oliva, A. Schweiger and A. Ponti. Electron paramagnetic resonance spectroscopy of iron(III)-doped MFI zeolite. 1. Multifrequency CW-EPR. *Journal of Physical Chemistry B* **108**, 1999–2005 (2004).

Fischer, D., A. Müller and M. Jansen. Is there a wurtzite-modification of lithium bromide? Studies on the system LiBr/LiI . *Zeitschrift für anorganische und allgemeine Chemie* **630**, 2697–2700 (2004).

Fischer, D., Z. Čančarević, J.C. Schön and M. Jansen. Synthesis and structure of K_3N . *Zeitschrift für anorganische und allgemeine Chemie* **630**, 156–160 (2004).

Fleck, M., A.I. Lichtenstein, M.G. Zacher, W. Hanke and A.M. Oleś. On the nature of the magnetic transition in a Mott insulator. *The European Physical Journal B* **37**, 439–446 (2004).

Fleig, J. Impedance spectroscopy on solids: The limits of serial equivalent circuit models. *Journal of Electroceramics* **13**, 637–644 (2004).

Fleig, J. and J. Maier. The polarization of mixed conducting SOFC cathodes: Effects of surface reaction coefficient, ionic conductivity and geometry. *Journal of the European Ceramic Society* **24**, 1343–1347 (2004).

Fleig, J., H.L. Tuller and J. Maier. Electrodes and electrolytes in micro-SOFCs: a discussion of geometrical constraints. *Solid State Ionics* **174**, 261–270 (2004).

Fleig, J. see Baumann, F.; Kossoy, A.; Lee, J.S.; Schröder, A.; Sitte, W.

Frantz, S., W. Kaim, J. Fiedler and C. Duboc. Complexes of $[\text{Re}(\text{CO})_3\text{Cl}]$ with different oxidation states of the polyfunctional bmtz/H(2)bmtz ligand system (bmtz = 3,6-bis(2-pyrimidyl)-1,2,4,5-tetrazine). *Inorganica Chimica Acta* **357**, 3657–3665 (2004).

Frantz, S., M. Weber, T. Scheiring, J. Fiedler, C. Duboc and W. Kaim. Mechanism and product characterization from the electroreduction of heterodinuclear complexes $[(\text{C}_5\text{Me}_5)\text{ClM}(\mu\text{-L})\text{Re}(\text{CO})_3\text{X}](\text{PF}_6)$, M = Rh or Ir, L = 2,2'-azobispyridine or 2,2'-azobis(5-chloropyrimidine), X = halide. *Inorganica Chimica Acta* **357**, 2905–2914 (2004).

Friese, K., M. Panthöfer, A. Reich, G. Wu and M. Jansen. Strukturbestimmung endohedraler Fullerene am Beispiel von $[\text{Ba}@C_{74}][\text{Co}(\text{OEP})] \cdot 2C_6H_6$. *Zeitschrift für Kristallographie, Supplement* **21**, 156–156 (2004).

Friese, K., M. Panthöfer, G. Wu and M. Jansen. Strategies for the structure determination of endohedral fullerenes applied to the example of $\text{Ba}@C_{74} \cdot \text{Co}(\text{OEP}) \cdot 2C_6H_6$. *Acta Crystallographica B* **60**, 520–527 (2004).

Fujiwara, K., K. Miyoshi, J. Takeuchi, Y. Shimaoka and T. Kobayashi. LiNMR in LiV_2O_4 under high pressure. *Journal of Physics: Condensed Matter* **16**, S615–S619 (2004).

Fuks, D., S. Dorfman, J. Felsteiner, L. Bakaleinikov, A. Gordon and E.A. Kotomin. Ab initio calculations of atomic and electronic structure of LaMnO_3 and SrMnO_3 . *Solid State Ionics* **173**, 107–111 (2004).

Gambardella, P., A. Dallmeyer, K. Maiti, M.C. Malagoli, S. Rusponi, P. Ohresser, W. Eberhardt, C. Carbone and K. Kern. Oscillatory magnetic anisotropy in one-dimensional atomic wires. *Physical Review Letters* **93**, 077203 (2004).

Ganin, A.Y., L. Kienle and G.V. Vajenine. Plasma-Enhanced CVD Synthesis and Structural Characterization of Ta_2N_3 . *European Journal of Inorganic Chemistry* **2004**, 3233–3239 (2004).

Gauss, N., A.G.M. Jansen and P. Wyder. Effect of nuclear field on magnetotransport quantum oscillations in InSb. *Journal of Superconductivity* **17**, 653–662 (2004).

Gavrilko, T., G. Puchkovska, I. Sekirin, B. Engelen, M. Panthöfer, J. Baran and H. Ratajczak. Possible manifestation of proton disorder in $\delta\text{-KIO}_3 \cdot \text{HIO}_3$ crystal in its IR spectra. *Journal of Molecular Structure* **692**, 237–241 (2004).

Geisler, M.C., J.H. Smet, V. Umansky, K. von Klitzing, B. Naundorf, R. Ketzmerick and H. Schweizer. Detection of a Landau band-coupling-induced rearrangement of the Hofstadter butterfly. *Physical Review Letters* **92**, 256801 (2004).

Gerhardts, R.R. see Siddiki, A.

Gibson, B., R.K. Kremer, A. Prokofiev, W. Assmus and B. Ouladdiaf. Elastic neutron diffraction study of long-range antiferro-magnetic order in the $S = 1/2$ quantum chain system CuSb_2O_6 . *Journal of Magnetism and Magnetic Materials* **272-276**, 927–928 (2004).

Gibson, B.J., R.K. Kremer, A.V. Prokofiev, W. Assmus and G.J. McIntyre. Incommensurate Antiferromagnetic Order in the $S = 1/2$ Quantum Chain Compound LiCuVO_4 . *Physica B* **350**, e253–e256 (2004).

Gieck, C., V. Derstroff, T. Block, C. Felser, G. Regelsky, O. Jepsen, V. Ksenofontov, P. Gülich, H. Eckert and W. Tremel. An Inorganic Double Helix Sheathing Alkali Metal Cations: $\text{ANb}_2\text{P}_2\text{S}_{12}$ ($A = \text{K}, \text{Rb}, \text{Cs}$), A Series of Thiophosphates Close to the Metal-Nonmetal Boundary – Chalcogenide Analogues of Transition-Metal Phosphate Bronzes? *Chemistry – A European Journal* **10**, 382–391 (2004).

Giessen, H., S. Linden, A. Christ, J. Kuhl, D. Nau, T. Meier, P. Thomas and S.W. Koch. Fano resonances in metallic photonic crystals. In: *CLEO/IQEC Technical Conference and PhAST Conference*. San Francisco, California, USA, 2004. *Trends in Optics and Photonics* paper IFC5, on CD (2004). *Optical Society of America*, Long Beach, CA, USA.

Giudici, P., A.R. Goñi, C. Thomsen, P.G. Bolcatto, C.R. Proetto and K. Eberl. Effects of the exchange instability on collective spin and charge excitations of the two-dimensional electron gas. *Physical Review B* **70**, 235418 (2004).

Giudici, P., A.R. Goñi, C. Thomsen and K. Eberl. Magnetic field effects on the exchange instability of the 2D electron gas. *Physica E* **22**, 438–441 (2004).

Glerup, M., J. Steinmetz, D. Samaille, O. Stephan, S. Enouz, A. Loiseau, S. Roth and P. Bernier. Synthesis of N-doped SWNT using the arc-discharge procedure. *Chemical Physics Letters* **387**, 193–197 (2004).

Gnezdilov, V., V. Kurnosov, Y.G. Pashkevich, J. Tranquada, P. Lemmens, K.-Y. Choi, G. Güntherodt, A. Yeremenko and K. Nakajima. Phonons and Magnons in $\text{La}_{5/3}\text{Sr}_{1/3}\text{NiO}_4$ single crystal. In: *Proceedings of the NATO ARW on Frontiers in Spectroscopy of Emergent Materials: Recent Advances toward New Technologies*; E.C. Faulques, D.L. Perry, A.V. Yeremenko (Eds.). Sudak, Crimea, Ukraine, 2003. *NATO Science Series II: Mathematics, Physics and Chemistry* **165**, 205–214 (2004). *Kluwer Academic Publishers*, Dordrecht, The Netherlands.

Gnezdilov, V.P., Y.G. Pashkevich, J.M. Tranquada, P. Lemmens, G. Güntherodt, A.V. Yeremenko, S.N. Barilo, S.V. Shiryayev, L.A. Kurnevich and P.M. Gehring. Interplay of structural and electronic phase separation in single-crystalline $\text{La}_2\text{CuO}_{4.05}$ studied by neutron and Raman scattering. *Physical Review B* **69**, 174508 (2004).

Goran, A.V., A.A. Bykov, A.K. Bakarov and J.C. Portal. Anisotropic positive magnetoresistance of a non-planar 2D electron gas in a parallel magnetic field. *JETP Letters* **79**, 495–498 (2004).

Gordon, A., N. Logoboy and W. Joss. Critical phenomena at diamagnetic phase transitions. *Physica B* **353**, 296–304 (2004).

Gordon, A., N. Logoboy and W. Joss. Magnon softening in metals at quantizing magnetic fields. *Solid State Communications* **130**, 131–135 (2004).

Gordon, A., N. Logoboy and W. Joss. Size-dependent effects on the magnetization dynamics of Condon domains. *Physical Review B* **69**, 174417 (2004).

Goñi, A.R., P. Giudici, F.A. Reboredo, C.R. Proetto, C. Thomsen, K. Eberl and M. Hauser. Evidence of spontaneous spin polarization in the two-dimensional electron gas. *Physical Review B* **70**, 195331 (2004).

Grayson, M., D. Schuh, M. Bichler, M. Huber, G. Abstreiter, L. Hoepfel, J. Smet and K. von Klitzing. Quantum Hall effect in a two-dimensional electron system bent by 90 degrees. *Physica E* **22**, 181–184 (2004).

Greco, A. and R. Zeyher. C-Axis Tunneling Spectra in High- T_c Superconductors in the Presence of a d Charge-Density Wave. *Physical Review B* **70**, 024518 (2004).

Grigorjeva, L., D.K. Millers, V. Pankratov, R.T. Williams, R.I. Eglitis, E.A. Kotomin and G. Borstel. Experimental and theoretical studies of polaron optical properties in KNbO_3 perovskite. *Solid State Communications* **129**, 691–696 (2004).

Grupp, A., O. Hauße, M. Hecht, M. Mehring, M. Panthöfer and M. Jansen. VIS-NIR, Raman and EPR Spectroscopy on Medium Cage Sized Endohedral Fullerenes. In: Proceedings of the XVIIIth International Winterschool/Euroconference on Electronic Properties of Novel Materials; H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds.). Kirchberg, Tirol, Austria, 2004. *AIP Conference Proceedings* **723**, 12–15 (2004). American Institute of Physics, New York, USA.

Gubarev, S.I., V.A. Koval'skiĭ, D.V. Kulakovskiĭ, I.V. Kukushkin, M.N. Khannanov, J. Smet and K. von Klitzing. Collective magnetoplasma excitations in two-dimensional electron rings. *JETP Letters* **80**, 124–129 (2004).

Gulacsi, M., A. Bussmann-Holder and A.R. Bishop. Competing interactions of spin and lattice in the Kondo lattice model. *Journal of Superconductivity* **17**, 167–171 (2004).

Gulo, F., A. Simon, J. Köhler and R.K. Kremer. Li-Cu exchange in intercalated Cu_3N – With a remark on Cu_4N . *Angewandte Chemie International Edition* **43**, 2032–2034 (2004).

Gunnarsson, O. Alkali-doped Fullerides. Narrow-band solids with unusual properties. 282 pages, 2004. World Scientific Publishing Co. Pte. Ltd., Singapore, Singapore.

Gunnarsson, O. see Merino, J.; Rösch, O.

Guo, X. and Y. Ding. Grain boundary space charge effect in zirconia – Experimental evidence. *Journal of The Electrochemical Society* **151**, J1–J7 (2004).

Guo, X.X. and J. Maier. Ionic conductivity of epitaxial MBE-grown BaF_2 films. *Surface Science* **549**, 211–216 (2004).

Guo, X.X., N. Sata and J. Maier. Effects of orientation and substrate on ion transport in fluoride heterostructures grown by molecular beam epitaxy. *Electrochimica Acta* **49**, 1091–1096 (2004).

Guth, U. and J. Maier. Proceedings of the 53rd Annual Meeting of the International Society of Electrochemistry: Preface. *Solid State Ionics* **169**, IX–IX (2004).

Gvozdkov, V.M., A.G.M. Jansen, D.A. Pesin, I.D. Vagner and P. Wyder. de Haas – van Alphen and chemical potential oscillations in the magnetic-breakdown quasi-two-dimensional organic conductor κ -(BEDT-TTF)₂Cu(NCS)₂. *Physical Review B* **70**, 245114 (2004).

Haase, J., D. Eckert, H. Siegel, H. Eschrig, K.H. Müller, A. Simon and F. Steglich. NMR at the frontier of pulsed high field magnets. *Physica B* **346-347**, 514–518 (2004).

Haase, J., D. Eckert, H. Siegel, K.-H. Müller, H. Eschrig, A. Simon and F. Steglich. NMR In Pulsed High Magnetic Fields. *Journal of Magnetism and Magnetic Materials* **272-276**, e1623–e1625 (2004).

Haase, J., O.P. Sushkov, P. Horsch and G.V.M. Williams. Planar Cu and O hole densities in high-T_c cuprates determined with NMR. *Physical Review B* **69**, 094504 (2004).

Habermeier, H.-U. Critical temperatures in ferromagnetic-superconducting all-oxide superlattices. *Journal of Superconductivity* **17**, 15–20 (2004).

Habermeier, H.-U. Paving the way for the success of Magneto-optics. In: *Proceedings of the NATO Advanced Research Workshop: Magneto-Optical Imaging*; T.H. Johansen, D.V. Shantsev (Eds.). Øystese, Norway, 2003. *NATO Science Series II: Mathematics, Physics and Chemistry* **142**, 1–3 (2004). Kluwer Academic Publishers, Dordrecht, The Netherlands.

Habermeier, H.-U. Substrate surface engineering for tailoring properties of functional ceramic thin films. *physica status solidi (c)* **1**, 1614–1619 (2004).

Habermeier, H.-U., J. Albrecht and S. Soltan. The enhancement of flux-line pinning in all-oxide superconductor/ferromagnet heterostructures. *Superconductor Science and Technology* **17**, S140–S144 (2004).

Habermeier, H.-U. and G. Cristiani. Physics aspects of superconductor-ferromagnet all oxide superlattices. *Physica C* **412-414**, 864–870 (2004).

Habermeier, H.-U. and G. Cristiani. YBa₂Cu₃O₇/La_{2/3}Ca_{1/3}MnO₃ superlattices showing simultaneously ferromagnetic and superconducting order. *physica status solidi (a)* **201**, 1436–1440 (2004).

Habermeier, H.-U. Substrate surface engineering for functional ceramic thin film growth. *Journal of Electroceramics* **13**, 23–27 (2004).

Habermeier, H.-U. see Albrecht, J.; Alves, E.; Chen, F.; Dubroka, A.; Holden, T.; Matveev, A.T.; Soltan, S.; Zhang, P.X.

Habicht, K., R. Golub, F. Mezei, B. Keimer and T. Keller. Temperature-dependent phonon lifetimes in lead investigated with neutron-resonance spin-echo spectroscopy. *Physical Review B* **69**, 104301 (2004).

Haendel, K.M., U. Denker, O.G. Schmidt, A.G.M. Jansen and R.J. Haug. Nonlinear transport in p-type SiGe quantum well structure containing Ge quantum dots. *Physica E* **21**, 487–490 (2004).

Haga, Y., J. Derr, A. Barla, B. Salce, G. Lapertot, I. Sheikin, K. Matsubayashi, N.K. Sato and J. Flouquet. Pressure-induced magnetic phase transition in gold-phase SmS. *Physical Review B* **70**, 220406 (2004).

Haluska, M., M. Hirscher, M. Becher, U. Dettlaff-Weglikowska, X. Chen and S. Roth. Interaction of hydrogen isotopes with carbon nanostructures. *Materials Science and Engineering B* **108**, 130–133 (2004).

Hannemann, A., J.C. Schön and M. Jansen. Structural variety and stability in the amorphous ceramic α -Si₃B₃N₇. *Zeitschrift für Kristallographie, Supplement* **21**, 47–47 (2004).

Hannemann, A., J.C. Schön, M. Jansen, H. Putz and T. Lengauer. Modelling amorphous Si₃B₃N₇: Structure and elastic properties. *Physical Review B* **70**, 144201 (2004).

Hannemann, A. see Schön, J.C.

Hartmann, J.M., Y. Bogumilowicz, P. Holliger, F. Laugier, R. Truche, G. Rolland, M.N. Semeria, V. Renard, E.B. Ol'shanetskiĭ, O. Estibals, Z.D. Kvon, J.C. Portal, L. Vincent, F. Cristiano and A. Claverie. Reduced pressure chemical vapour deposition of SiGe virtual substrates for high mobility devices. *Semiconductor Science and Technology* **19**, 311–318 (2004).

Hayne, A., J. Maes, Y.M. Manz, O.G. Schmidt and V.V. Moshchalkov. Magneto-photoluminescence study of type-II charge confinement in epitaxially grown GaInP₂. *Physica E* **21**, 257–260 (2004).

He, M., L. Kienle, A. Simon, X.L. Chen and V. Duppel. Re-examination of the crystal structure of Na₂Al₂B₂O₇: stacking faults and twinning. *Journal of Solid State Chemistry* **177**, 3213–3219 (2004).

He, M., A. Simon and V. Duppel. Ti₅Se₄: The first step of cluster condensation with titanium selenides. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 535–540 (2004).

Hebling, J., J. Kuhl, Á. Péter and K. Polgár. Temperature dependence of the absorption and refraction of Mg-doped congruent and stoichiometric LiNbO₃ in the THz range. In: CLEO/IQEC Technical Conference and PhAST Conference. San Francisco, California, USA, 2004. Trends in Optics and Photonics paper CThT33, on CD (2004). Optical Society of America, Long Beach, CA, USA.

Hebling, J., A.G. Stepanov, G. Almási, B. Bartal and J. Kuhl. Tunable THz pulse generation by optical rectification of ultrashort laser pulses with tilted pulse fronts. *Applied Physics B* **78**, 593–599 (2004).

Hebling, J., A.G. Stepanov, G. Almási, B. Bartal and J. Kuhl. Tuning of powerful THz pulses by changing the tilt angle of the pump pulse front. In: CLEO/IQEC Technical Conference and PhAST Conference. San Francisco, California, USA, 2004. Trends in Optics and Photonics paper CTuB7, on CD (2004). Optical Society of America, Long Beach, CA, USA.

Heidemeyer, H., C. Müller and O.G. Schmidt. Highly ordered arrays of In(Ga)As quantum dots on patterned GaAs(001) substrates. *Journal of Crystal Growth* **261**, 444–449 (2004).

Heidemeyer, H., C. Müller and O.G. Schmidt. Structural and optical investigations of 1-, 2-, and 3-dimensional InAs quantum dot arrays. *Physica E* **23**, 237–242 (2004).

Heifets, E., R.A. Evarestov, E.A. Kotomin, S. Dorfman and J. Maier. Atomistic modeling of polar LaMnO₃ surfaces. *Sensors and Actuators B: Chemical* **100**, 81–87 (2004).

Heifets, E., W.A. Goddard III, E.A. Kotomin, R.I. Eglitis and G. Borstel. Ab initio calculations of the SrTiO₃ (110) polar surface. *Physical Review B* **69**, 035408 (2004).

Heinz, K., J. Bernhardt, J. Schardt and U. Starke. Functional surface reconstructions of hexagonal SiC. *Journal of Physics: Condensed Matter* **16**, S1705–S1720 (2004).

Held, K. see Feldbacher, M.; Keller, G.; Mo, S.-K.; Sekiyama, A.

Heyning, O.T., L. Kouwenhoven, P. Bernier and M. Glerup. A Low Cost Method for the Synthesis of Carbon Nanotubes and Highly Y-Branched Nanotubes. In: Proceedings of the XVIIIth International Winter-school/Euroconference on Electronic Properties of Novel Materials; H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds.). Kirchberg, Tirol, Austria, 2004. AIP Conference Proceedings **723**, 45–48 (2004). American Institute of Physics, New York, USA.

Hinkov, V., S. Pailhès, P. Bourges, Y. Sidis, A. Ivanov, A. Kulakov, C.T. Lin, D.P. Chen, C. Bernhard and B. Keimer. Two-dimensional geometry of spin excitations in the high-transition-temperature superconductor YBa₂Cu₃O_{6+x}. *Nature* **430**, 650–653 (2004).

Hinkov, V. see Pailhès, S.

Höner zu Siederdisen, T., N.C. Nielsen, J. Kuhl, J. Förstner, A. Knorr and H. Giessen. Temporal phase evolution during excitonic Rabi flopping in semiconductors. In: CLEO/IQEC Technical Conference and PhAST Conference. San Francisco, California, USA, 2004. Trends in Optics and Photonics paper IMB3, on CD (2004). Optical Society of America, Long Beach, CA, USA.

Hönle, W., W. Schmettow, K. Peters, J.H. Chang and H.G. von Schnering. The hencicosphosphide iodides of potassium and rubidium, K₄P₂₁I and Rb₄P₂₁I. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 1858–1862 (2004).

Hönnerscheid, A., L. van Wüllen, R. Dinnebier, M. Jansen, J. Rahmer and M. Mehring. Evidence for C₆₀ dimerisation in the fulleride [Cr(C₉H₁₂)₂]⁺C₆₀I⁻. *Physical Chemistry Chemical Physics* **6**, 2454–2460 (2004).

Hol'anova, Z., J. Kačmarčík, P. Szabó, P. Samuely, I. Sheikin, R.A. Ribeiro, S.L. Bud'ko and P.C. Canfield. Critical fluctuations in the carbon-doped magnesium diboride. *Physica C* **404**, 195–199 (2004).

Holden, T., H.-U. Habermeier, G. Cristiani, A. Golnik, A. Boris, A. Pimenov, J. Humlíček, O.I. Lebedev, G. Van Tendeloo, B. Keimer and C. Bernhard. Proximity induced metal-insulator transition in $\text{YBa}_2\text{Cu}_3\text{O}_7/\text{La}_{2/3}\text{Ca}_{1/3}\text{MnO}_3$ superlattices. *Physical Review B* **69**, 064505 (2004).

Holleitner, A.W., A. Chudnovskiy, D. Pfannkuche, K. Eberl and R.H. Blick. Pseudospin Kondo correlations versus hybridized molecular states in double quantum dots. *Physical Review B* **70**, 075204 (2004).

Holzapfel, M., S. de Brion, C. Darie, P. Bordet, E. Chappel, G. Chouteau, P. Strobel, A. Sulpice and M.D. Núñez-Regueiro. Decoupling of orbital and spin degrees of freedom in $\text{Li}_{1-x}\text{Na}_x\text{NiO}_2$. *Physical Review B* **70**, 132410 (2004).

Holzapfel, M., O. Proux, P. Strobel, C. Darie, M. Borowski and M. Morcrette. Effect of iron on delithiation in $\text{Li}_x\text{Co}_{1-y}\text{Fe}_y\text{O}_2$. Part 2: in-situ XANES and EXAFS upon electrochemical cycling. *Journal of Materials Chemistry* **14**, 102–110 (2004).

Holzapfel, M., P. Strobel, C. Darie, J. Wright, M. Morcrette, E. Chappel and M. Anne. Effect of iron on delithiation in $\text{Li}_x\text{Co}_{1-y}\text{Fe}_y\text{O}_2$. Part 1: in-situ electrochemical and X-ray diffraction study. *Journal of Materials Chemistry* **14**, 94–101 (2004).

Holzinger, M., J. Steinmetz, D. Samaille, P. Bernier and V. Aboutanos. Route for Single-Walled Nanotube-Polymer Composites. In: Proceedings of the XVIIIth International Winterschool/Euroconference on Electronic Properties of Novel Materials; H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds.). Kirchberg, Tirol, Austria, 2004. AIP Conference Proceedings **723**, 469–472 (2004). American Institute of Physics, New York, USA.

Honerkamp, C. and W. Hofstetter. BCS pairing in Fermi systems with N different hyperfine states. *Physical Review B* **70**, 094521 (2004).

Honerkamp, C. and W. Hofstetter. Ultracold fermions and the $\text{SU}(N)$ Hubbard model. *Physical Review Letters* **92**, 170403 (2004).

Honerkamp, C. and P.A. Lee. Staggered flux vortices and the superconducting transition in the layered cuprates. *Physical Review Letters* **92**, 177002 (2004).

Honerkamp, C., D. Rohe, S. Andergassen and T. Enss. Interaction flow method for many-fermion systems. *Physical Review B* **70**, 235115 (2004).

Honerkamp, C. see Läuchli, A.; Salmhofer, M.

Hornbostel, B., M. Dubosc, P. Pötschke and S. Roth. Investigations on Polycarbonate-Nanotube Composites. In: Proceedings of the XVIIIth International Winterschool/Euroconference on Electronic Properties of Novel Materials; H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds.). Kirchberg, Tirol, Austria, 2004. AIP Conference Proceedings **723**, 473–477 (2004). American Institute of Physics, New York, USA.

Hornbostel, B. see Pötschke, P.; Roth, S.

Horsch, P. see Bała, J.; Haase, J.; Khaliullin, G.; Oleś, A.M.

Huels, J., J. Weis, J. Smet, K. von Klitzing and Z.R. Wasilewski. Long time relaxation phenomena of a two-dimensional electron system within integer quantum Hall plateau regimes after magnetic field sweeps. *Physical Review B* **69**, 085319 (2004).

Hüttel, A.K., J. Weber, A.W. Holleitner, D. Weinmann, K. Eberl and R.H. Blick. Nuclear spin relaxation probed by a single quantum dot. *Physical Review B* **69**, 073302 (2004).

Humlíček, J. and C. Bernhard. Diffraction effects in infrared ellipsometry of conducting samples. *Thin Solid Films* **455-456**, 177–182 (2004).

Ilani, S., J. Martin, E. Teitelbaum, J.H. Smet, D. Mahalu, V. Umansky and A. Yacoby. The microscopic nature of localization in the quantum Hall effect. *Nature* **427**, 328–332 (2004).

Ilani, S., J. Martin, E. Teitelbaum, J.H. Smet, D. Mahalu, V. Umansky and A. Yacoby. The microscopic nature of localization in the quantum Hall effect. *Physica E* **25**, 219–226 (2004).

Isaia, J.N., A. Babinski, R. Ferreira, L.A. de Vulchier, M. Potemski, Y. Guldner and J.M. Gérard. Enhanced exciton-LO phonon coupling in doped quantum dots. *Physica E* **21**, 400–404 (2004).

Jäschke, B. and M. Jansen. Crystal structure of 1,2-bis(trifluoromethanesulfonyloxy)disilane, $[\text{F}_3\text{CSO}_3\text{SiH}_2]_2$. *Zeitschrift für Kristallographie: New Crystal Structures* **219**, 355–356 (2004).

Jäschke, T. and M. Jansen. Synthesis and characterization of new amorphous Si/B/N/C ceramics with increased carbon content through single-source precursors. *Comptes Rendus Chimie* **7**, 471–482 (2004).

Jäschke, T. and M. Jansen. Synthesis, crystal structure, and spectroscopic characterization of the borazine derivatives $[\text{B}\{\text{CH}_2(\text{SiCl}_3)\}\text{NH}]_3$ and $[\text{B}\{\text{CH}_2(\text{SiCl}_2\text{CH}_3)\}\text{NH}]_3$. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 239–243 (2004).

Jandl, S., G. Riou, P. Richard, M.L. Sadowski, I.M. Sutjahja and A.A. Menovsky. Nd^{3+} crystal field excitations under magnetic field in $\text{La}_{1.65}\text{Nd}_{0.35}\text{CuO}_4$. *Physica C* **403**, 151–156 (2004).

Jansen, M. Kampf dem Sprödebruch – neue Entwicklungen bei Hochleistungskeramiken. *Kultur & Technik* **1**, 29–31 (2004).

Jansen, M. and J.C. Schön. Rational development of new materials putting the cart before the horse?. *Nature Materials* **3**, 838–838 (2004).

Jansen, M. see Ahlert, S.; Arumugam, N.; Curda, J.; Dietzel, P.D.C.; Dinnebier, R.E.; Fischer, D.; Friese, K.; Grupp, A.; Hannemann, A.; Hönnerscheid, A.; Jäschke, B.; Jäschke, T.; Karpov, A.; Kulakov, A.B.; Liu, H.Z.; Makarova, M.V.; Maljuk, A.; Mogare, K.M.; Mühle, C.; Müller, B.G.; Niesert, A.; Orosel, D.; Panthöfer, M.; Poltavets, V.; Pompetzki, M.; Reich, A.; Santamaría-Pérez, D.; Schön, J.C.; Sharma, S.; Sörgel, T.; Sofin, M.; Velden, A.; Vensky, S.; Wüllen van, L.; Zaitsev, D.D.; Zaytsev, D.D.; Čančarević, Z.P.

Jauch, W. and M. Reehuis. Electron density distribution in paramagnetic and antiferromagnetic NiO: A γ -ray diffraction study. *Physical Review B* **70**, 195121 (2004).

Jepsen, O. see Block, T.; Gieck, C.; Mazin, I.I.

Jin-Phillipp, N.Y., N. Sata, J. Maier, C. Scheu, K. Hahn, M. Kelsch and M. Rühle. Structures of BaF_2 – CaF_2 heterolayers and their influences on ionic conductivity. *Journal of Chemical Physics* **120**, 2375–2381 (2004).

Josse, M., M. Dubois, M. El-Ghozzi, D. Avignant, G. André, F. Bourée and M. Guillot. Neutron diffraction study of the magnetic structures of one-dimensional M_2TbF_6 ($\text{M} = \text{Li}, \text{K}, \text{Rb}$) fluorides: frustration, incommensurability and magnetic interactions. *Journal of Alloys and Compounds* **374**, 207–212 (2004).

Kaempgen, M. see Chiu, P.W.; Ferrer-Anglada, N.

Kaiser, A.B., B. Chapman, U. Schlecht and M. Burghard. Kaiser A. B., B. Chapman, U. Schlecht, and M. Burghard. In: Proceedings of the XVIIIth International Winterschool/Euroconference on Electronic Properties of Novel Materials; H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds.). Kirchberg, Tirol, Austria, 2004. AIP Conference Proceedings **723**, 99–102 (2004). American Institute of Physics, New York, USA.

Kar, G.S., S. Kiravittaya, M. Stoffel and O.G. Schmidt. Material distribution across the interface of random and ordered island arrays. *Physical Review Letters* **93**, 246103 (2004).

Kar, G.S. see Schmidt, O.G.; Stoffel, M.

Karachevtsev, V.A., A.Y. Glamazda, U. Dettlaff-Weglikowska, V.S. Leontiev and P.V. Mateichenko. Carbon single-wall nanotubes in surrounding of SDS, DNA: aqueous solution and films. *Nanosystems, Nanomaterials and Nanotechnologies* **2**, 1063–1068 (2004).

Karaiskaj, D., J.A.H. Stotz, T. Meyer, M.L.W. Thewalt and M. Cardona. The Importance on Inhomogeneous Isotope Broadening. *Physical Review Letters* **90**, 186402 (2004).

Karpov, A., J. Nuss, U. Wedig and M. Jansen. Covalently bonded $^1_\infty[\text{Pt}^-]$ chains in BaPt: Extension of the Zintl-Klemm concept to anionic transition metals? *Journal of the American Chemical Society* **126**, 14123–14128 (2004).

Karpov, A., U. Wedig, R.E. Dinnebier and M. Jansen. Dibariumplatinide: $(\text{Ba}^{2+})_2\text{Pt}^{2-}\cdot 2\text{e}^-$, and Its Relation to the Alkaline-Earth-Metal Subnitrides. *Angewandte Chemie International Edition* **43**, 770–773 (2004).

Karpov, A., U. Wedig and M. Jansen. Pt-dumbbells in Ba_3Pt_2 : Interplay of geometric and relativistic effects on Pt-Pt bonding. *Zeitschrift für Naturforschung B* **59**, 1387–1394 (2004).

Karpov, A. see Mühle, C.

Kartsovnik, M., D. Andres, P. Grigoriev, W. Biberacher and H. Müller. Interplay between the orbital quantization and Pauli effect in a charge-density-wave organic conductor. *Physica B* **346-347**, 368–372 (2004).

Kasper, E., J. Eberhardt, H. Jorke, J.F. Luy, H. Kibbel, M.W. Dashiell, O.G. Schmidt and M. Stoffel. SiGe resonance phase transistor: active transistor operation beyond the transit frequency $f(T)$. *Solid-State Electronics* **48**, 837–840 (2004).

Kataev, V., J. Pommer, K.-Y. Choi, P. Lemmens, A. Ionescu, Y. Pashkevich, K. Lamonova, A. Möller, A. Freimuth and G. Güntherodt. Magnetic exchange in a low-dimensional complex oxide $(\text{Cu,Zn})_2\text{V}_2\text{O}_7$. *Journal of Magnetism and Magnetic Materials* **272-276**, 933–934 (2004).

Katanin, A.A. Fulfillment of Ward identities in the functional renormalization group approach. *Physical Review B* **70**, 115109 (2004).

Keimer, B. and A.M. Oleś. Editorial – Focus on Orbital Physics. *New Journal of Physics* **6**, (2004).

Keimer, B. see Bayrakci, S.P.; Bernhard, C.; Boris, A.V.; Etrillard, J.; Habicht, K.; Hinkov, V.; Holden, T.; Koitzsch, A.; Kordyuk, A.A.; Kovaleva, N.N.; Kulakov, A.B.; Lebon, A.; Lemmens, P.; Machtoub, L.H.; Maljuk, A.; Nothardt, A.; Pailhès, S.; Sidis, Y.; Strempfer, J.

Keller, G., K. Held, V. Eyert, D. Vollhardt and V.I. Anisimov. Electronic structure of paramagnetic V_2O_3 : Strongly correlated metallic and Mott insulating phase. *Physical Review B* **70**, 205116 (2004).

Keller, T., H. Habicht, R. Golub and F. Mezei. Roton and phonon linewidths in superfluid ^4He . *Europhysics Letters* **67**, 773–778 (2004).

Keller, T. see Arend, N.; Habicht, K.

Kern, K. see Ahlert, S.; Balasubramanian, K.; Clair, S.; Costantini, G.; Dmitriev, A.; Enders, A.; Gambardella, P.; Klinke, C.; Knez, M.; Lingenfelder, M.A.; Montalenti, F.; Pascual, J.I.; Picaud, F.; Rastelli, A.; Roth, M.; Schlecht, U.; Stepanow, S.; Vitali, L.; Vladimirova, M.; Wahl, P.; Wessendorf, M.; Wu, X.C.

Khaliullin, G., P. Horsch and A.M. Oleś. Theory of optical spectral weights in Mott insulators with orbital degrees of freedom. *Physical Review B* **70**, 195103 (2004).

Khaliullin, G., W. Koshibae and S. Maekawa. Low Energy Electronic States and Triplet Pairing in Layered Cobaltate. *Physical Review Letters* **93**, 176401 (2004).

Khaliullin, G. see Bernhard, C.; Kovaleva, N.N.; Krivenko, S.; Maekawa, S.; Miyashita, S.; Oleś, A.M.

Khorenko, E., W. Prost, F.J. Tegude, M. Stoffel, R. Duschl, M.W. Dashiell and O.G. Schmidt. Influence of layer structure on the current-voltage characteristics of Si/SiGe interband tunneling diodes. *Journal of Applied Physics* **96**, 3848–3851 (2004).

Kienle, L., V. Duppel and S. Schlecht. Micro- and nanostructure of $(\text{Sn}_{1-x}\text{Ge}_x)\text{S}$ mixed crystals. *Solid State Sciences* **6**, 179–183 (2004).

Kienle, L., V. Duppel, A. Simon, M. Schlosser and O. Jarchow. Real structure of KInS_2 polytypes. *Journal of Solid State Chemistry* **177**, 6–16 (2004).

Kienle, L. see Deiseroth, H.J.; Ganin, A.Y.; He, M.; Mattausch, H.J.; Schlecht, U.; Schmittl, M.; Vensky, S.

Kim, S. and J. Maier. Partial electronic and ionic conduction in nanocrystalline ceria: role of space charge. *Journal of the European Ceramic Society* **24**, 1919–1923 (2004).

Kim, S., R. Merkle and J. Maier. Oxygen nonstoichiometry of nanosized ceria powder. *Surface Science* **549**, 196–202 (2004).

Kiravittaya, S., H. Heidemeyer and O.G. Schmidt. Growth of three-dimensional quantum dot crystals on patterned GaAs (001) substrates. *Physica E* **23**, 253–259 (2004).

Kiravittaya, S. see Kar, G.S.; Schmidt, O.G.

Klaffs, T., V.A. Krupenin, J. Weis and F.J. Ahlers. Eddy currents in the integer quantum Hall regime spatially resolved by multiple single-electron transistor electrometers. *Physica E* **22**, 737–740 (2004).

Klein, W. see Curda, J.; Liu, H.Z.; Mogare, K.M.; Müller, B.G.

Klinke, C., J.M. Bonard and K. Kern. Formation of metallic nano-crystals from gel-like precursor films for CVD nanotube growth: an in-situ TEM characterization. *Journal of Physical Chemistry B* **108**, 11357–11360 (2004).

von Klitzing, K. see Geisler, M.C.; Grayson, M.; Gubarev, S.I.; Huels, J.; Kukushkin, I.V.; Kulik, L.V.; Lok, J.G.S.; Mani, R.G.; Mikhailov, S.; Muraki, K.; Smet, J.H.; Stern, O.; Tovstionog, S.V.; Wiersma, R.D.

Knap, W., V.I. Fal'ko, E. Frayssinet, P. Lorenzini, N. Grandjean, D. Maude, G. Karczewski, B.L. Brandt, J. Lusakowski, I. Grzegory, M. Leszczynski, P. Prystawko, C. Skierbiszewski, S. Porowski, X. Hu, G. Simin, M.A. Khan and M.S. Shur. Spin and interaction effects in Shubnikov-de Haas oscillations and the quantum Hall effect in GaN/AlGaN heterostructures. *Journal of Physics: Condensed Matter* **16**, 3421–3432 (2004).

Knap, W., F. Teppe, Y. Meziani, N. Dyakonova, J. Lusakowski, F. Boeuf, T. Skotnicki, D. Maude, S. Rumyantsev and M.S. Shur. Plasma wave detection of sub-terahertz and terahertz radiation by silicon field-effect transistors. *Applied Physics Letters* **85**, 675–677 (2004).

Knez, M., M. Sumser, A.M. Bittner, C. Wege, H. Jeske, T.P. Martin and K. Kern. Spatially selective nucleation of metal clusters on the tobacco mosaic virus. *Advanced Functional Materials* **14**, 116–124 (2004).

Knez, M., M.P. Sumser, A.M. Bittner, C. Wege, H. Jeske, D.M.P. Hoffmann, K. Kuhnke and K. Kern. Binding the tobacco mosaic virus to inorganic surfaces. *Langmuir* **20**, 441–447 (2004).

Koch, E. and R. Zeyher. Renormalization of the electron-phonon coupling in the one-band Hubbard model. *Physical Review B* **70**, 094510 (2004).

Kodama, K., M. Takigawa, M. Horvatić, C. Berthier, H. Kageyama, Y. Ueda, S. Miyahara, F. Becca and F. Mila. Spin superstructure in the 1/8-magnetization plateau phase of the 2D orthogonal dimer spin system $\text{SrCu}_2(\text{BO}_3)_2$. *Journal of Magnetism and Magnetic Materials* **272-276**, 25–26 (2004).

Köhler, J. see Achary, S.N.; Deng, S.; Gulo, F.; Mathews, M.D.; Simon, A.

Koitzsch, A., S.V. Borisenko, A.A. Kordyuk, T.K. Kim, M. Knupfer, J. Fink, M.S. Golden, W. Koops, H. Berger, B. Keimer, C.T. Lin, S. Ono, Y. Ando and R. Follath. Origin of the shadow Fermi surface in Bi-based cuprates. *Physical Review B* **69**, 220505 (2004).

Konemann, J., D.K. Maude, V. Avrutin, A. Waag and R.J. Haug. Spin-resolved single-electron-tunneling and local density of states fluctuations in high magnetic fields. *Physica E* **22**, 434–437 (2004).

Kopcansky, P., I. Potocova, M. Koneracka, M. Timko, J. Jadzyn, G. Czechowski and A.G.M. Jansen. Structural transitions in thermotropic ferronematics. *Indian Journal of Engineering and Materials Sciences* **11**, 271–275 (2004).

Kordyuk, A.A., S.V. Borisenko, A. Koitzsch, J. Fink, M. Knupfer, B. Büchner, H. Berger, G. Margaritondo, C.T. Lin, B. Keimer, S. Ono and Y. Ando. Manifestation of the Magnetic Resonance Mode in the Nodal Quasiparticle Lifetime of the Superconducting Cuprates. *Physical Review Letters* **92**, 257006 (2004).

Kordyuk, A.A., S.V. Borisenko, A.N. Yaresko, S.L. Drechsler, H. Rosner, T.K. Kim, A. Koitzsch, K.A. Nenkov, M. Knupfer, J. Fink, R. Follath, H. Berger, B. Keimer, S. Ono and Y. Ando. Evidence for CuO conducting band splitting in the nodal direction of $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+\delta}$. *Physical Review B* **70**, 214525 (2004).

Kossacki, P., H. Boukari, M. Bertolini, D. Ferrand, J. Cibert, S. Tatarenko, J.A. Gaj, B. Deveaud, V. Ciulin and M. Potemski. Photoluminescence of p-doped quantum wells with strong spin splitting. *Physical Review B* **70**, 195337 (2004).

Kossoy, A., J.P. Nair, E. Wachtel, I. Lubomirsky, J. Fleig and J. Maier. Room temperature phase transition in CeO₂ nanocrystalline films. *Journal of Electroceramics* **13**, 605–608 (2004).

Kotomin, E.A., E. Heifets, S. Dorfman, D. Fuks, A. Gordon and J. Maier. Comparative study of polar perovskite surfaces. *Surface Science* **566-568**, 231–235 (2004).

Kotomin, E.A. see Eglitis, R.I.; Evarestov, R.A.; Fuks, D.; Grigorjeva, L.; Heifets, E.; Mastrikov, Y.A.; Sychev, O.; Zhukovskii, Y.F.

Kovaleva, N.N., A.V. Boris, C. Bernhard, A. Kulakov, A. Pimenov, A.M. Balbashov, G. Khaliullin and B. Keimer. Spin-Controlled Mott-Hubbard Bands in LaMnO₃ Probed by Optical Ellipsometry. *Physical Review Letters* **93**, 147204 (2004).

Kovaleva, N.N., A.V. Boris, T. Holden, C. Ulrich, B. Liang, C.T. Lin, B. Keimer, C. Bernhard, J.L. Tallon, D. Munzar and A.M. Stoneham. *c*-axis lattice dynamics in Bi-based cuprate superconductors. *Physical Review B* **69**, 054511 (2004).

Kovaleva, N.N. see Bernhard, C.; Boris, A.V.; Caimi, G.; Lemmens, P.

Kremer, R.K., K. Graf, M. Cardona, G.G. Devyatykh, A.V. Gusev, A.M. Gibin, A.V. Inyushkin, A.N. Taldenkov and H.-J. Pohl. Thermal Conductivity of Isotopically Enriched ²⁸Si: Revisited. *Solid State Communications* **131**, 499–509 (2004).

Kremer, R.K. and A. Simon. Superconductivity and Magnetoresistance in Unusual Layered Rare Earth Halides and Rare Earth Carbides. *Current Applied Physics* **4**, 563–569 (2004).

Kremer, R.K. see Ahn, K.; Bayrakci, S.P.; Deisenhofer, J.; Dietzel, P.D.C.; Gibson, B.; Gulo, F.; Liao, W.P.; Lukoschus, K.; Prokofiev, A.V.; Ren, X.-M.; Rößm, T.; Ryazanov, M.; Schnelle, W.; Shikano, M.; Somer, M.; Song, J.L.

Kreuer, K.-D. and J. Maier. Comment on ‘Chemical diffusion coefficient of H₂O in AB_{1-x}B_x¹O_{3-x/2}-type perovskites’. *Journal of the American Ceramic Society* **87**, 1173–1173 (2004).

Kreuer, K.-D., J. Maier and W. Meyer. Proceedings of the Workshop on Hydrogen: Ionic, Atomic and Molecular Motion: Preface. *Solid State Ionics* **168**, VII–VII (2004).

Kreuer, K.-D., S.J. Paddison, E. Spohr and M. Schuster. Transport in proton conductors for fuel-cell applications: Simulations, elementary reactions, and phenomenology. *Chemical Reviews* **104**, 4637–4678 (2004).

Kreuer, K.-D. see Schuster, M.F.H.

Krivenko, S., A. Yaresko, G. Khaliullin and H. Fehske. Magnon softening and damping in the ferromagnetic manganites due to orbital correlations. *Journal of Magnetism and Magnetic Materials* **272-276**, 458–459 (2004).

Krstic, V., G. Wagniere and G.L.J.A. Rikken. Magneto-dynamics of chiral carbon nanotubes. *Chemical Physics Letters* **390**, 25–28 (2004).

Krstic, V., G. Wagnière and G.L.J.A. Rikken. Mechanical Dynamics of Chiral Carbon Nanotubes: Magneto-hydrodynamic Effects. In: Proceedings of the XVIIIth International Winterschool/Euroconference on Electronic Properties of Novel Materials; H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds.). Kirchberg, Tirol, Austria, 2004. *AIP Conference Proceedings* **723**, 121–128 (2004). American Institute of Physics, New York, USA.

Krupko, Y., L. Smrčka, P. Vašek, P. Svoboda, M. Cukr and L. Jansen. In-plane magnetic field-dependent magnetoresistance of gated asymmetric double quantum wells. *Physica E* **22**, 44–47 (2004).

Kuhl, J. see Christ, A.; Giessen, H.; Hebling, J.; Höner zu Siederdisen, T.; Nau, D.; Neuberth, U.; Nielsen, N.C.; Schaarschmidt, M.; Stepanov, A.G.; Wyszomolek, A.; Zentgraf, T.

Kuhnke, K. see Knez, M.

Kukushkin, I.V., M.Y. Akimov, J.H. Smet, S.A. Mikhailov, K. von Klitzing, I.L. Aleiner and V.I. Fal'ko. New type of B-periodic magneto-oscillations in a two-dimensional electron system induced by microwave irradiation. *Physical Review Letters* **92**, 236803 (2004).

Kukushkin, I.V., J.H. Smet, L. Höppel, U. Waizmann, M. Riek, W. Wegscheider and K. von Klitzing. Ultrahigh-frequency surface acoustic waves for finite wave-vector spectroscopy of two-dimensional electrons. *Applied Physics Letters* **85**, 4526–4528 (2004).

Kulakov, A.B., A.N. Maljuk, M. Sofin, C.T. Lin, B. Keimer and M. Jansen. The Na–Cu–O phase diagram in the Cu-rich part. *Journal of Solid State Chemistry* **177**, 3274–3280 (2004).

Kulda, J., A. Debernardi, M. Cardona, F. de Geuser and E.E. Haller. Self-energy of zone-boundary phonons in germanium: Ab initio calculations versus neutron spin-echo measurements. *Physical Review B* **69**, 045209 (2004).

Kulik, L.V., S.V. Tovstonog, V.E. Kirpichev, I.V. Kukushkin, W. Dietsche, M. Hauser and K. von Klitzing. Symmetry driven plasmon transformations in a bilayer electron system. *Physical Review B* **70**, 033304 (2004).

Kumar, A., M. Tallarida, M. Hansmann, U. Starke and K. Horn. Thin manganese films on Si(111)-(7x7): electronic structure and strain in silicide formation. *Journal of Physics D* **37**, 1083–1090 (2004).

Kunc, K., I. Loa and K. Syassen. Diamond under pressure: ab-initio calculations of the equation of state and optical phonon frequency revisited. *High Pressure Research* **24**, 101–110 (2004).

Kvon, Z.D., V. Renard, G.M. Gusev and J.C. Portal. Large positive quasi-classical magnetoresistance in high mobility 2D electron gas: Interplay of short- and long-range disorder. *Physica E* **22**, 332–335 (2004).

Kvon, Z.D., V.A. Tkachenko, A.E. Plotnikov, V.A. Sablikov, V. Renard and J.C. Portal. Conductance of a multiterminal ballistic wire. *JETP Letters* **79**, 36–39 (2004).

Kvon, Z.D., V.A. Tkachenko, O.A. Tkachenko, A.I. Toropov, A.K. Bakarov, V. Renard and J.C. Portal. Magnetotransport of electrons in overfull quantum well. *Physica E* **21**, 742–746 (2004).

Läuchli, A., C. Honerkamp and T.M. Rice. d-Mott Phases in One and Two Dimensions. *Physical Review Letters* **92**, 037006 (2004).

Lascialfari, A., F. Borsa, M.-H. Julien, E. Micotti, D. Furukawa, Z.H. Jang, A. Cornia, D. Gatteschi, M. Horvatić and J. van Slageren. Spin dynamics at level crossing in molecular AF rings probed by NMR. *Journal of Magnetism and Magnetic Materials* **272-276**, 1042–1047 (2004).

Lebedeva, E.V., A.M. Dyugaev and P.D. Grigor'ev. Bound states of an electron and a macroscopic cluster at a liquid helium surface. *Journal of Experimental and Theoretical Physics* **98**, 390–393 (2004).

Lebon, A., P. Adler, C. Bernhard, A.V. Boris, A.V. Pimenov, A. Maljuk, C.T. Lin, C. Ulrich and B. Keimer. Magnetism, Charge Order, and Giant Magnetoresistance in SrFeO_{3-δ} Single Crystals. *Physical Review Letters* **92**, 037202 (2004).

Lee, J.-S., J. Fleig, J. Maier and D.-Y. Kim. Conventional and microcontact impedance studies of Mn-Zn ferrite ceramics. *Journal of Materials Research* **19**, 864–871 (2004).

Lee, J.-S., D.Y. Kim, J. Fleig and M. Joachim. Geometry and electrical properties of grain boundaries in manganese zinc ferrite ceramics. *Journal of the American Ceramic Society* **87**, 1895–1902 (2004).

Leineweber, A., O. Oeckler and U. Zachwieja. Static atomic displacements of Sn in disordered NiAs/Ni₂In type HT-Ni_{1+δ}Sn. *Journal of Solid State Chemistry* **177**, 936–945 (2004).

Lembrikov, B.I., P. Malits, M. Haridim and I. Vagner. Spin stripes of the 2D electron gas in a periodic hyperfine field. *Nano Letters* **4**, 951–955 (2004).

Lemmens, P. Light scattering of magnets in the proximity to quantum criticality. In: *Proceedings of the NATO ARW on Frontiers in Spectroscopy of Emergent Materials: Recent Advances toward New Technologies*; E.C. Faulques, D.L. Perry, A.V. Yeremenko (Eds.). Sudak, Crimea, Ukraine, 2003. *NATO Science Series II: Mathematics, Physics and Chemistry* **165**, 173–184 (2004). Kluwer Academic Publishers, Dordrecht, The Netherlands.

Lemmens, P., K.-Y. Choi, G. Caimi, L. Degiorgi, N.N. Kovaleva, A. Seidel and F.C. Chou. Giant phonon softening in the pseudogap phase of the quantum spin system TiOCl. *Physical Review B* **70**, 134429 (2004).

Lemmens, P., V. Gnezdilov, N.N. Kovaleva, K.-Y. Choi, H. Sakurai, E. Takayama-Muromachi, K. Takada, T. Sasaki, F.C. Chou, C.T. Lin and B. Keimer. Effect of Na content and hydration on the excitation spectrum of the cobaltite $\text{Na}_x\text{CoO}_2 \cdot y\text{H}_2\text{O}$. *Journal of Physics: Condensed Matter* **16**, S857–S865 (2004).

Lemmens, P. and P. Millet. Spin Orbit Topology, a Triptych. In: *Quantum Magnetism*; U. Schollwöck, J. Richter, D.J.J. Farnell, R.F. Bishop (Eds.). Springer Lecture Notes in Physics **645**, 433–477 (2004). Springer Verlag, Berlin/Heidelberg, Germany.

Li, H., P. Balaya and J. Maier. Li-storage via heterogeneous reaction in selected binary metal fluorides and oxides. *Journal of the Electrochemical Society* **151**, A1878–A1885 (2004).

Li, S. see Manjón, F.

Li, X.J., T. Kobayashi, F.X. Zhang, K. Kimoto and T. Sekine. A new high-pressure phase of LiAlO_2 . *Journal of Solid State Chemistry* **177**, 1939–1943 (2004).

Liang, B., C. Bernhard, T. Wolf and C.T. Lin. Phase evolution, structural and superconducting properties of Pb-free $\text{Bi}_2\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_{10+\delta}$ single crystals. *Superconductor Science and Technology* **17**, 731–738 (2004).

Liang, B. and C.T. Lin. Floating-zone growth and characterization of high-quality $\text{Bi}_2\text{Sr}_x\text{La}_x\text{CuO}_{6+\delta}$ single crystals. *Journal of Crystal Growth* **267**, 510–516 (2004).

Liang, J. see Roth, S.

Liao, W.P., C.H. Hu, R.K. Kremer and R. Dronskowski. Formation of complex three- and one-dimensional interpenetrating networks within carbodiimide chemistry: NCN^{2-} -coordinated rare-earth-metal tetrahedra and condensed alkali-metal iodide octahedra in two novel lithium europium carbodiimide iodides, $\text{LiEu}_2(\text{NCN})\text{I}_3$ and $\text{LiEu}_4(\text{NCN})_3\text{I}_3$. *Inorganic Chemistry* **43**, 5884–5890 (2004).

Lin, C.T. and A. Kulakov. In situ observation of ferroelastic detwinning of YBCO single crystals by high temperature optical microscopy. *Physica C* **408-410**, 27–29 (2004).

Lin, C.T. see Bayrakci, S.P.; Bernhard, C.; Boris, A.V.; Borisenko, S.V.; Chen, D.P.; Etrillard, J.; Hinkov, V.; Koitzsch, A.; Kordyuk, A.A.; Kovaleva, N.N.; Kulakov, A.B.; Lebon, A.; Lemmens, P.; Liang, B.; Maljuk, A.; Martinho, H.; Matveev, A.T.; Nachtrab, T.; Stempfer, J.; Wu, P.H.; Zhu, X.B.

Lin, N. see Dmitriev, A.; Lingenfelder, M.A.; Stepanow, S.

Linden van der, P.J.E.M. and K. Behnia. Erratum: ‘Measuring thermal conductivity in extreme conditions: Sub-Kelvin temperatures and high (27 T) magnetic fields’ [*Rev. Sci. Instrum.* **75**, 273 (2004)]. *Review of Scientific Instruments* **75**, 2486–2486 (2004).

Linden van der, P.J.E.M. and K. Behnia. Measuring thermal conductivity in extreme conditions: Sub-Kelvin temperatures and high (27 T) magnetic fields. *Review of Scientific Instruments* **75**, 273–275 (2004).

Lingenfelder, M.A., H. Spillmann, A. Dmitriev, S. Stepanow, N. Lin, J.V. Barth and K. Kern. Towards surface-supported supramolecular architectures: tailored coordination assembly of 1,4-benzenedicarboxylate and Fe on Cu(100). *Chemistry – A European Journal* **10**, 1913–1919 (2004).

Lingenfelder, M.A. see Dmitriev, A.; Stepanow, S.

Liu, H.Z., W. Klein, A. Sani and M. Jansen. Pressure induced phase transition and amorphization of Na_3ONO_2 . *Physical Chemistry Chemical Physics* **6**, 881–883 (2004).

Liu, X.H., A. Sulpice, E. Mossang, R. Tournier, T. Fournier, L. Zhou, X.Z. Wu, B.H. Xie, B.Q. Fu, F.Y. Wang, P.X. Zhang and Y. Feng. Enhanced critical current density in multifilamentary NbTi/Cu superconductors with highly aligned artificial pinning center. *Physica C* **412-414**, 1244–1250 (2004).

Liu, X.H. see Feng, Y.

Loa, I., K. Syassen, X. Wang, F. Lichtenberg, M. Hanfland and C.A. Kuntscher. Crystal structure of $\text{LaTiO}_{3.41}$ under pressure. *Physical Review B* **69**, 224105 (2004).

Loa, I. see Deneke, C.; Kunc, K.; Schmidt, M.; Wang, X.

Lok, J.G.S., S. Kraus, O. Stern, W. Dietsche, K. von Klitzing, W. Wegscheider, A. Bichler and D. Schuh. Time and current dependencies of transport at the $\nu = 2/3$ phase transition in narrow quantum wells. *Physica E* **22**, 138–141 (2004).

Lok, J.G.S., M. Lynass, W. Dietsche, K. von Klitzing and M. Hauser. Quantum Hall ferromagnetism of AlAs 2D electrons. *Physica E* **22**, 94–97 (2004).

Lok, J.G.S. see Muraki, K.; Wiersma, R.D.

Lorenzo, J.E., K. Katsumata, Y. Narumi, S. Shimomura, Y. Tanaka, M. Hagiwara, H. Mayaffre, C. Berthier, O. Piovesana, T. Ishikawa and H. Kitamura. Observation of a lattice instability at the field-induced phase transition of the spin-gapped compound $\text{Cu}_2(\text{C}_5\text{H}_{12}\text{N}_2)_2\text{Cl}_4$. *Physical Review B* **69**, 220409 (2004).

Lukoschus, K., S. Kraschinski, C. Nather, W. Bensch and R.K. Kremer. Magnetic properties and low temperature X-ray studies of the weak ferromagnetic monoclinic and trigonal chromium tellurides Cr_5Te_8 . *Journal of Solid State Chemistry* **177**, 951–959 (2004).

Lynass, M. see Lok, J.G.S.

Machtoub, L.H., B. Keimer and K. Yamada. Raman study of electronic excitations in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ ($x \sim 1/8$) under high magnetic field. *Physica C* **412-414**, 316–318 (2004).

Maekawa, S., T. Tohyama, S.E. Barnes, S. Ishihara, W. Koshibae and G. Khaliullin. *Physics of Transition Metal Oxides*. In: Springer Series in Solid-State Sciences **144**, 337 pages, 2004. Springer Verlag, Berlin/Heidelberg, Germany.

Maier, J. High temperature versus low temperature defect chemistry. *Solid State Ionics* **173**, 1–8 (2004).

Maier, J. Ionic transport in nano-sized systems. *Solid State Ionics* **175**, 7–12 (2004).

Maier, J. Nano-ionics: More Than Just a Fashionable Slogan. *Journal of Electroceramics* **13**, 593–598 (2004).

Maier, J. *Physical Chemistry of Ionic Materials: Ions and Electrons in Solids*. 538 pages, 2004. WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany.

Maier, J. Point defects as acid-base active particles in ionic crystals. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 2562–2568 (2004).

Maier, J. Transport in electroceramics: micro- and nano-structural aspects. *Journal of the European Ceramic Society* **24**, 1251–1257 (2004).

Maier, J. see Baumann, F.; Bhattacharyya, A.; Evarestov, R.A.; Fleig, J.; Guo, X.X.; Guth, U.; Heifets, E.; Jin-Phillipp, N.Y.; Kim, S.; Kossov, A.; Kotomin, E.A.; Kreuer, K.-D.; Lee, J.S.; Li, H.; Mastrikov, Y.A.; Merkle, R.; Raz, S.; Schröder, A.

Makarova, M.V., P.E. Kazin, Y.D. Tretyakov, M. Jansen, M. Reissner and W. Steiner. Relations between the synthesis conditions, composition, microstructure and superconducting properties of Bi-2212 based composites. *Mendeleev Communications* **2004**, 157–158 (2004).

Malits, P. Dual and triple Fourier-Bessel series equations. *Computers and Mathematics with Applications* **48**, 823–831 (2004).

Maljuk, A., A.B. Kulakov, M. Sofin, L. Capogna, J. Stempfer, C.T. Lin, M. Jansen and B. Keimer. Flux-growth and characterization of NaCu_2O_2 single crystals. *Journal of Crystal Growth* **263**, 338–343 (2004).

Maljuk, A., A.B. Kulakov, M. Sofin, L. Capogna, J. Stempfer, C.T. Lin, M. Jansen and B. Keimer. Flux-growth and characterization of NaCu_2O_2 single crystals. *Zeitschrift für Kristallographie, Supplement* **21**, 211–211 (2004).

Maljuk, A., J. Stempfer, C. Ulrich, M. Sofin, L. Capogna, C.T. Lin and B. Keimer. Growth of $\text{Sr}_3\text{Fe}_2\text{O}_{7-x}$ single crystals by the floating zone method. *Journal of Crystal Growth* **273**, 207–212 (2004).

Maljuk, A. see Borisenko, S.V.; Chen, D.P.; Kulakov, A.B.; Lebon, A.; Matveev, A.T.

Mani, R.G. Novel zero-resistance states induced by photoexcitation in the high mobility GaAs/AlGaAs two-dimensional electron system. *Physica E* **25**, 189–197 (2004).

Mani, R.G. Zero-resistance states induced by electromagnetic-wave excitation in GaAs/AlGaAs heterostructures. *Physica E* **22**, 1–6 (2004).

Mani, R.G., V. Narayanamurti, K. von Klitzing, J.H. Smet, W.B. Johnson and V. Umansky. Radiation-induced oscillatory Hall effect in high-mobility GaAs/Al_xGa_{1-x}As devices. *Physical Review B* **69**, 161306 (2004).

Mani, R.G., V. Narayanamurti, K. von Klitzing, J.H. Smet, W.B. Johnson and V. Umansky. Radiation-induced zero-resistance states in GaAs/AlGaAs heterostructures: Voltage-current characteristics and intensity dependence at the resistance minima. *Physical Review B* **70**, 155310 (2004).

Mani, R.G., J.H. Smet, K. von Klitzing, V. Narayanamurti, W.B. Johnson and V. Umansky. Demonstration of a 1/4-cycle phase shift in the radiation-induced oscillatory magnetoresistance in GaAs/AlGaAs devices. *Physical Review Letters* **92**, 146801 (2004).

Mani, R.G., J.H. Smet, K. von Klitzing, V. Narayanamurti, W.B. Johnson and V. Umansky. Radiation-induced oscillatory magnetoresistance as a sensitive probe of the zero-field spin-splitting in high-mobility GaAs/Al_xGa_{1-x}As devices. *Physical Review B* **69**, 193304 (2004).

Maniv, T., Y.A. Bychkov and I.D. Vagner. Massive spin collective mode in a quantum Hall ferromagnet. *Physical Review B* **69**, 121304 (2004).

Maniv, T., V. Zhuravlev, J. Wosnitza and J. Hagel. Irreversible magnetization deep in the vortex-liquid state of a 2D superconductor at high magnetic fields. *Journal of Physics: Condensed Matter* **16**, L429–L435 (2004).

Manjón, F., M. Hernández-Fenollosa, B. Marí, S. Li, C. Poweleit, A. Bell, J. Mené and M. Cardona. Effect of N isotopic mass on the photoluminescence and cathodoluminescence spectra of gallium nitride. *The European Physical Journal B* **40**, 453–458 (2004).

Manjón, F.J., S. Jandl, G. Riou, B. Ferrand and K. Syassen. Effect of pressure on crystal-field transitions of Nd-doped YVO₄. *Physical Review B* **69**, 165121 (2004).

Manske, D. Theory of Unconventional Superconductors: Cooper-Pairing Mediated by Spin Excitations. In: *Springer Tracts in Modern Physics* **202**, 228 pages, 2004. G. Höhler (Ed.). Springer Verlag, Berlin/Heidelberg, Germany.

Manske, D. see Einzel, D.

Mantel, C., C. Baffert, I. Romero, A. Deronzier, J. Pécaut, M.N. Collomb and C. Duboc. Structural characterization and electronic properties determination by high-field and high-frequency EPR of a series of five-coordinated Mn(II) complexes. *Inorganic Chemistry* **43**, 6455–6463 (2004).

Mantel, C., C. Philouze, M.N. Collomb and C. Duboc. Investigation of a neat versus magnetically diluted powdered mononuclear Mn^{II} complex by high-field and high-frequency EPR spectroscopy. *European Journal of Inorganic Chemistry* **2004**, 3880–3886 (2004).

Martin, J., S. Ilani, B. Verdene, J. Smet, V. Umansky, D. Mahalu, D. Schuh, G. Abstreiter and A. Yacoby. Localization of Fractionally Charged Quasi-Particles. *Science* **305**, 980–983 (2004).

Martinho, H., A.A. Martin, C. Rettori and C.T. Lin. Origin of the A_{1g} and B_{1g} electronic Raman scattering peaks in the superconducting state of YBa₂Cu₃O_{7-δ}. *Physical Review B* **69**, 180501 (2004).

Marx, W. and M. Cardona. Blasts from the past. *Physics World* **17**, 14–15 (2004).

Marx, W. see Cardona, M.

Mastrikov, Y.A., Y.F. Zhukovskii, E.A. Kotomin, J. Maier and Y.N. Shunin. Diffusion of Silver Vacancies on AgCl(111)/α-Al₂O₃(0001) Interface: First Principles Simulations. In: *Proceedings of the 2nd Conference on Information Technologies and Management*. 118–125 (2004); Institute for Information Technology and Management, Riga, Latvia. Riga, Latvia, 2004.

Mathews, M.D., B.R. Ambekar, A.K. Tyagi and J. Köhler. High temperature X-ray diffraction studies on sodium yttrium fluoride. *Journal of Alloys and Compounds* **377**, 162–166 (2004).

Mattausch, Hj., O. Oeckler, C. Zheng and A. Simon. The compound $\text{La}_5\text{Br}_4\text{Al}_4$ and the topological relation with the Ln_3ClGa_4 structure type. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 631–634 (2004).

Mattausch, Hj. and A. Simon. Eine neue Modifikation von Lanthanmonogermanid – IT-LaGe; A new modification of lanthanummonogermanide – IT-LaGe. *Zeitschrift für Naturforschung B* **59**, 559–561 (2004).

Mattausch, Hj., A. Simon and C. Zheng. Crystal structure of pentalanthanum trilead monoiodide, $\text{La}_5\text{Pb}_3\text{I}$. *Zeitschrift für Kristallographie: New Crystal Structures* **219**, 87–88 (2004).

Mattausch, Hj., A. Simon and C. Zheng. Crystal structure of trilanthanum monolead triiodide, La_3PbI_3 . *Zeitschrift für Kristallographie: New Crystal Structures* **219**, 346–346 (2004).

Mattausch, Hj., C. Zheng, L. Kienle and A. Simon. The first reduced rare earth halide with a group 11 element as interstitial: $\text{La}_3\text{I}_3\text{Au}$. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 2367–2372 (2004).

Mattausch, Hj. see Babizhetskyy, V.; Oeckler, O.; Ryazanov, M.

Matveev, A.T., G. Cristiani, E. Sader, V. Damljanovic and H.-U. Habermeier. Growth of $\text{RuSr}_2\text{GdCu}_2\text{O}_8$ films by post-annealing of pulsed laser deposited precursors. *Physica C* **417**, 50–57 (2004).

Matveev, A.T., A.N. Maljuk, A. Kulakov, C.T. Lin and H.-U. Habermeier. Thermal stability of $\text{RuSr}_2\text{GdCu}_2\text{O}_8$, $\text{Ru}_{1-x}\text{Sr}_2\text{GdCu}_2\text{O}_{8-y}$, RuO_2 . *Physica C* **407**, 139–146 (2004).

Matveev, A.T., E. Sader, V. Duppel, A. Kulakov, A. Maljuk, C.T. Lin and H.-U. Habermeier. Decomposition of $\text{RuSr}_2\text{GdCu}_2\text{O}_8$ phase under high-temperature treatment. *Physica C* **403**, 231–239 (2004).

Mazin, I.I., O.K. Andersen, O. Jepsen, A.A. Golubov, O.V. Dolgov and J. Kortus. Comment on “First-principles calculation of the superconducting transition in MgB_2 within the anisotropic Eliashberg formalism”. *Physical Review B* **69**, 056501 (2004).

Merino, J., A. Greco, R.H. McKenzie and M. Calandra. Dynamical properties of a strongly correlated model for quarter-filled layered organic molecular crystals. *Physical Review B* **68**, 245121 (2004).

Merino, J. and O. Gunnarsson. Role of Surface States in Scanning Tunneling Spectroscopy of (111) Metal Surfaces with Kondo Adsorbates. *Physical Review Letters* **93**, 156601 (2004).

Merino, J. and O. Gunnarsson. Simple model for scanning tunneling spectroscopy of noble metal surfaces with adsorbed Kondo impurities. *Physical Review B* **69**, 115404 (2004).

Merino, J. and J.B. Marston. Dynamical $1/N$ approach to time-dependent currents through quantum dots. *Physical Review B* **69**, 115304 (2004).

Merkle, R., J. Maier, K.-D. Becker and M. Kreye. Chemical diffusion with non-constant D^δ and the appearance of a parabolic rate law: Model study on SrTiO_3 . *Physical Chemistry Chemical Physics* **6**, 3633–3638 (2004).

Merkle, R., J. Maier and H.J.M. Bouwmeester. A Linear Free Energy Relationship for Gas-Solid Interactions: Correlation between Surface Rate Constant and Diffusion Coefficient of Oxygen Tracer Exchange for Electron-Rich Perovskites. *Angewandte Chemie International Edition* **43**, 5069–5073 (2004).

Merkle, R. see Kim, S.

Metzner, W. see Andergassen, S.; Salmhofer, M.

Meyer, J.C., D. Oberfell, M. Paillet, G.S. Duesberg and S. Roth. Freestanding Nanostructures for TEM-Combined Investigations of Nanotubes. In: Proceedings of the XVIIIth International Winterschool/Euroconference on Electronic Properties of Novel Materials; H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds.). Kirchberg, Tirol, Austria, 2004. *AIP Conference Proceedings* **723**, 540–543 (2004). American Institute of Physics, New York, USA.

Meyer, J.C., D. Oberfell, S. Roth, S.H. Yang and S.F. Yang. Transmission electron microscopy and transistor characteristics of the same carbon nanotube. *Applied Physics Letters* **85**, 2911–2913 (2004).

Meyer, J.C. see Oberfell, D.; Paillet, M.

Meyer, T.A., M.L.W. Thewalt, M. Cardona and R. Lauck. Sulfur isotope effects on the excitonic spectra of CdS. *Physical Review B* **69**, 115214 (2004).

Micnas, R., S. Robaszkiewicz and A. Bussmann-Holder. Superconductivity in a two-component model with local electron pairs. *Journal of Superconductivity* **17**, 27–32 (2004).

Mikhailov, S., I. Kukushkin, J. Smet and K. von Klitzing. New physical principle of detecting electromagnetic radiation. *Proceedings of SPIE* **5619**, 187–197 (2004).

Miu, L., S. Popa, T. Noji, Y. Koike, D. Miu, S. Diaz and G. Chouteau. Nonmonotonic temperature dependence of the experimentally determined vortex-creep activation energy in disordered high-temperature superconductors. *Physical Review B* **70**, 134523 (2004).

Miyahara, S., F. Mila, K. Kodama, M. Takigawa, M. Horvatic, C. Berthier, H. Kageyama and Y. Ueda. The effects of intra-dimer Dzyaloshinsky-Moriya interaction on the properties of $\text{SrCu}_2(\text{BO}_3)_2$ in an external magnetic field. *Journal of Physics: Condensed Matter* **16**, S911–S916 (2004).

Miyashita, S., A. Kawaguchi, N. Kawakami and G. Khaliullin. Quantum phase transitions in the one-dimensional $S=1$ spin-orbital model: Implications for cubic vanadates. *Physical Review B* **69**, 104425 (2004).

Mlayah, A., J. Grönen, G. Bachelier, F. Poinsothe, J.R. Huntzinger, M. Cazayous, E. Bedel-Pereira, A. Arnoult, O.G. Schmidt, N. Bertru, C. Paranthoen and O. Dehaese. Scattering of light by sound on a nanoscale. *Proceedings of SPIE* **5459**, 328 (2004).

Mo, S.-K., H.-D. Kim, J.W. Allen, G.-H. Gweon, J.D. Denlinger, J.-H. Park, A. Sekiyama, A. Yamasaki, S. Suga, P. Metcalf and K. Held. Filling of the Mott-Hubbard gap in high temperature photoemission spectrum of $(\text{V}_{0.972}\text{Cr}_{0.028})_2\text{O}_3$. *Physical Review Letters* **93**, 076404 (2004).

Mogare, K.M., K. Friese, W. Klein and M. Jansen. Syntheses and crystal structures of two sodium ruthenates: Na_2RuO_4 and Na_2RuO_3 . *Zeitschrift für anorganische und allgemeine Chemie* **630**, 547–552 (2004).

Montalenti, F., P. Raiteri, D.B. Migas, H. von Känel, A. Rastelli, C. Manzano, G. Costantini, U. Denker, O.G. Schmidt, K. Kern and L. Miglio. Atomic-scale pathway of the pyramid-to-dome transition during Ge growth on Si(001). *Physical Review Letters* **93**, 216102 (2004).

Morchshakov, V., L. Haupt, K. Bärner, I.O. Troyanchuk, G.H. Rao, A. Ghoshray and E. Gmelin. Heat conductivity and thermopower of $\text{Nd}_{1-x}\text{Sr}_x\text{CoO}_3$ ceramic. *Journal of Alloys and Compounds* **372**, 17–24 (2004).

Moresco, P. and T. Alboussière. Experimental study of the instability of the Hartmann layer. *The Journal of Fluid Mechanics* **504**, 167–181 (2004).

Mossang, E., F. Debray, H. Jongbloets, W. Joss, G. Martinez, P. Petmezakis, J.C. Picoche, P. Rub, P. Sala, C. Trophime and P. Wyder. The Grenoble high magnetic field laboratory as a user facility. *Physica B* **346-347**, 638–642 (2004).

Mühle, C., R.E. Dinnebier, L. van Wüllen, G. Schwering and M. Jansen. New insights into the structural and dynamical features of lithium hexaoxometalates Li_7MO_6 ($M=\text{Nb}, \text{Ta}, \text{Sb}, \text{Bi}$). *Inorganic Chemistry* **43**, 874–881 (2004).

Mühle, C., A. Karpov, J. Nuss and M. Jansen. Crystal growth and crystal structure determination of $\text{K}_2[\text{Pt}(\text{CN})_4\text{Cl}_2]$, $\text{K}_2[\text{Pt}(\text{CN})_4\text{Br}_2]$, $\text{K}_2[\text{Pt}(\text{CN})_4\text{I}_2]$ and $\text{K}_2[\text{Pt}(\text{CN})_4\text{Cl}_2]\cdot 2\text{H}_2\text{O}$. *Zeitschrift für Naturforschung B* **59**, 567–572 (2004).

Mühle, C., A. Karpov, J. Nuss and M. Jansen. Kristallzucht und Strukturaufklärung von $\text{K}_2[\text{Pt}(\text{CN})_4\text{Cl}_2]$, $\text{K}_2[\text{Pt}(\text{CN})_4\text{Br}_2]$, $\text{K}_2[\text{Pt}(\text{CN})_4\text{I}_2]$ und $\text{K}_2[\text{Pt}(\text{CN})_4\text{Cl}_2]\cdot 2\text{H}_2\text{O}$. *Zeitschrift für Naturforschung B* **59**, 567–572 (2004).

Mühle, C., J. Nuss, R.E. Dinnebier and M. Jansen. On potassium tetracyanoplatinate(II), potassium tetracyanopalladate(II), and their monohydrates. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 1462–1468 (2004).

Müller, B.G., W. Klein and M. Jansen. Hg_4OF_6 , das erste Quecksilberoxidfluorid. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 1123–1125 (2004).

Muraki, K., J.G.S. Lok, S. Kraus, W. Dietsche, K. von Klitzing, D. Schuh, M. Bichler and W. Wegscheider. Coulomb drag as a probe of the nature of compressible states in a magnetic field. *Physical Review Letters* **92**, 246801 (2004).

Murzin, S.S., A.G.M. Jansen and I. Claus. Topological oscillations of the magnetoconductance in disordered GaAs layers. *Physical Review Letters* **92**, 016802 (2004).

Mycielski, A., L. Kowalczyk, A. Szadkowski, B. Chwalisz, A. Wymotek, R. Stępniewski, J.M. Baranowski, M. Potemski, A. Witowski, R. Jakiela, A. Barcza, B. Witkowska, W. Kaliszek, A. Jedrzejczak, A. Suchocki, E. Lusakowska and E. Kaminska. The chemical vapour transport growth of ZnO single crystals. *Journal of Alloys and Compounds* **371**, 150–152 (2004).

Nachtrab, T., D. Koelle, R. Kleiner, C. Bernhard and C.T. Lin. Intrinsic Josephson Effects in the Magnetic Superconductor $\text{RuSr}_2\text{GdCu}_2\text{O}_8$. *Physical Review Letters* **92**, 117001 (2004).

Nau, D., A. Christ, S. Linden, J. Kuhl and H. Giessen. The influence of disorder in metallic photonic crystal slabs. In: CLEO/IQEC Technical Conference and PhAST Conference. San Francisco, California, USA, 2004. Trends in Optics and Photonics paper IThB6, on CD (2004). Optical Society of America, Long Beach, CA, USA.

Neuberth, U., N. Rau, M. Wegener, S. Linden, S. Pereira, K. Busch, A. Christ and J. Kuhl. Near-field transmission spectroscopy of one-dimensional metallic photonic crystal slabs. In: CLEO/IQEC Technical Conference and PhAST Conference. San Francisco, California, USA, 2004. Trends in Optics and Photonics paper IThB2, on CD (2004). Optical Society of America, Long Beach, CA, USA.

Nielsen, N.C., J. Kuhl, M. Schaarschmidt, J. Förstner, A. Knorr, S.W. Koch and H. Giessen. Temporal and spatial compression of near-resonant pulses in a nonlinear defocusing semiconductor. In: CLEO/IQEC Technical Conference and PhAST Conference. San Francisco, California, USA, 2004. Trends in Optics and Photonics paper CTuP30, on CD (2004). Optical Society of America, Long Beach, CA, USA.

Nielsen, N.C., J. Kuhl, M. Schaarschmidt, J. Förstner, A. Knorr, S.W. Koch, G. Khitrova, H.M. Gibbs and H. Giessen. Linear and nonlinear pulse propagation in a multiple-quantum-well photonic crystal. *Physical Review B* **70**, 075306 (2004).

Nielsen, N.C. see Höner zu Siederdisen, T.; Schaarschmidt, M.

Niesert, A., R. Sievers, A. Siggel, K. Langer and M. Jansen. Preparation and optical absorption of zircons, co-doped with vanadium and rare earth elements. *Solid State Sciences* **6**, 1149–1154 (2004).

Nikolić, P.M., W. König, D. Luković, S. Saviv, S. Vujatović, K. Radulović and V. Blagojević. Far infrared characterization of samarium doped single crystal PbTe. *Journal of Optoelectronics and Advanced Materials* **6**, 811–816 (2004).

Nothardt, A., E. Balthes, B. Salameh, W. Schmidt, D. Schweitzer, J. Stempfer, B. Keimer and D. Maude. Quantum oscillation measurements on the organic superconductor β -(BEDT-TTF) $_2\text{I}_3$. *Materials Science – Poland* **22**, 299–305 (2004).

Nothardt, A., E. Balthes, W. Schmidt, D. Schweitzer, M.V. Kartsovnik and I. Sheikin. SdH experiments on the organic superconductor κ -(BEDT-TTF) $_2\text{I}_3$ under hydrostatic pressure. *Journal de Physique IV* **114**, 351–353 (2004).

Nucci, J. EU Liaison Officer supports top-quality materials research. *MRS Bulletin* **29**, 202–202 (2004).

Nuss, J., H.G. von Schnering and Y. Grin. On the antimonide oxides $\text{La}_9\text{Sb}_5\text{O}_5$ and $\text{Ce}_9\text{Sb}_5\text{O}_5$ as well as the binary phases La_2Sb and Ce_2Sb . *Zeitschrift für anorganische und allgemeine Chemie* **630**, 2287–2291 (2004).

Nuss, J. see Karpov, A.; Mühle, C.; Santamaría-Pérez, D.

Obergfell, D., J.C. Meyer, P.-W. Chiu, Shi. Yang, Sha. Yang and S. Roth. Electrical Transport in Dy Metallofullerene Peapods. In: Proceedings of the XVIIIth International Winterschool/Euroconference on Electronic Properties of Novel Materials; H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds.). Kirchberg, Tirol, Austria, 2004. AIP Conference Proceedings **723**, 556–560 (2004). American Institute of Physics, New York, USA.

Obergfell, D. see Meyer, J.C.

Oeckler, O., Hj. Mattausch, J. Bauer and A. Simon. Order and disorder of anions in tetragonal boride carbides of rare earth metals. Zeitschrift für Naturforschung B **59**, 1551–1562 (2004).

Öksüzoglu, R.M., A. Elmali, R. Henn, H. Fuess and H. Hahn. Structural and magnetic properties of Al doped Co-Ag granular films: temperature dependence of magnetoresistance. Journal of Magnetism and Magnetic Materials **279**, 202–209 (2004).

Okudera, H., A. Yoshiasa, Y. Masubuchi, M. Higuchi and S. Kikkawa. Temperature dependence of structural parameters in oxide-ion-conducting Nd_{9.33}(SiO₄)₆O₂: single crystal X-ray studies from 295 to 900 K. Journal of Solid State Chemistry **177**, 4451–4458 (2004).

Okudera, H. see Ren, X.-M.; Yoshiasa, A.

Oleś, A.M. Orbital ordering and orbital fluctuations in transition metal oxides [physica status solidi (b) 236, 281–288 (2003)]. physica status solidi (b) **241**, 2639–2639 (2004).

Oleś, A.M., P. Horsch and G. Khaliullin. Spin and orbital correlations in spin orbital models for t_{2g} orbitals. Journal of Magnetism and Magnetic Materials **272-276**, 440–441 (2004).

Orlita, M., R. Grill, M. Zvára, G.H. Döhler, S. Malzer, M. Byszewski and J. Soubusta. Luminescence of coupled quantum wells: Effects of indirect excitons in high in-plane magnetic fields. Physical Review B **70**, 075309 (2004).

Orosel, D., O. Leynaud, P. Balog and M. Jansen. Pressure-temperature phase diagram of SeO₂. Characterization of new phases. Journal of Solid State Chemistry **177**, 1631–1638 (2004).

Oryshchyn, S., V. Babizhetskyy, S. Chykhriy, L. Aksel'rud, S. Stoyko, I. Bauer, R. Guérin and Y. Kuz'ma. Crystal structure of Ni₅P₂. Inorganic Materials **40**, 380–385 (2004).

Ostorero, J. and M. Guillot. Magneto-optical properties of sc-substituted dysprosium iron garnet single crystals. IEEE Transactions on Magnetism **40**, 2823–2825 (2004).

Pailhès, S., Y. Sidis, P. Bourges, V. Hinkov, A. Ivanov, C. Ulrich, L.P. Regnault and B. Keimer. Resonant Magnetic Excitations at High Energy in Superconducting YBa₂Cu₃O_{6.85}. Physical Review Letters **93**, 167001 (2004).

Paillet, M., V. Jourdain, P. Poncharal, J.L. Sauvajol, A. Zahab, J.C. Meyer, S. Roth, N. Cordente, C. Amiens and B. Chaudret. Versatile synthesis of individual single-walled carbon nanotubes from nickel nanoparticles for the study of their physical properties. Journal of Physical Chemistry B **108**, 17112–17118 (2004).

Panthöfer, M., U. Wedig, H. Brumm and M. Jansen. Geometric and Electronic Structure of Polymeric C₇₀-Fullerides: the case of $\frac{1}{x}[C_{70}^{3-}]$. Solid State Sciences **6**, 619–624 (2004).

Panthöfer, M. see Friese, K.; Gavrillo, T.; Grupp, A.; Reich, A.

Paredes, J.I. and M. Burghard. Dispersions of individual single-walled carbon nanotubes of high length. Langmuir **20**, 5149–5152 (2004).

Pascual, J.I., J.V. Barth, G. Ceballos, G. Trimarchi, A. De Vita, K. Kern and H.P. Rust. Mesoscopic chiral reshaping of the Ag(110) surface induced by the organic molecule PVBA. Journal of Chemical Physics **120**, 11367–11370 (2004).

Pashkevich, Y.G., V.P. Gnezdilov, P. Lemmens, K.-Y. Choi, G. Güntherodt, A.V. Eremenko, S.N. Barilo, S.V. Shiryaev and A.G. Soldatov. Giant phonon softening in ferromagnetic LaMnO_{3+d}. In: Proceedings of the NATO ARW on Frontiers in Spectroscopy of Emergent Materials: Recent Advances toward New Technologies; E.C. Faulques, D.L. Perry, A.V. Yeremenko (Eds.). Sudak, Crimea, Ukraine, 2003. NATO Science Series II: Mathematics, Physics and Chemistry **165**, 185–194 (2004). Kluwer Academic Publishers, Dordrecht, The Netherlands.

Pashkevich, Y.G., V.P. Gnezdilov, P. Lemmens, K.-Y. Choi, K.V. Lamonova, A.A. Gusev, A.V. Yeremenko, G. Güntherodt, S.N. Barilo, S.V. Shiryayev and G.L. Bychkov. Raman studies of single and polycrystalline cobaltites $\text{GdBaCo}_2\text{O}_{5+d}$ with d close to 0.5. In: Proceedings of the NATO ARW on Frontiers in Spectroscopy of Emergent Materials: Recent Advances toward New Technologies; E.C. Faulques, D.L. Perry, A.V. Yeremenko (Eds.). Sudak, Crimea, Ukraine, 2003. NATO Science Series II: Mathematics, Physics and Chemistry **165**, 195–204 (2004). Kluwer Academic Publishers, Dordrecht, The Netherlands.

Patanè, A., N. Mori, D. Fowler, L. Eaves, M. Henini, D.K. Maude, C. Hamaguchi and R. Airey. Magnetic-field-induced suppression of electronic conduction in a superlattice. *Physical Review Letters* **93**, 146801 (2004).

Pavarini, E., S. Biermann, A. Poteryaev, A.I. Lichtenstein, A. Georges and O.K. Andersen. Mott Transition and Suppression of Orbital Fluctuations in Orthorhombic $3d^1$ Perovskites. *Physical Review Letters* **92**, 176403 (2004).

Pershin, Y.V. Electronic structure of nuclear-spin-polarization-induced quantum dots. *Physical Review B* **69**, 085314 (2004).

Peters, K., E.-M. Peters, K. Hartmann, B.G. Kim and T. Linker. Crystal structure of butyl(2R,3R,4R)-2,3,4-triacetoxy-4-[(2R)-oxotetrahydrofuran-2-yl]-acetate, $\text{C}_{16}\text{H}_{22}\text{O}_{10}$. *Zeitschrift für Kristallographie: New Crystal Structures* **219**, 461–462 (2004).

Peters, K., E.-M. Peters and T. Linker. Crystal structure of (1R,3S,5R)-3-hydroxy-2-methylene-6-oxabicyclo[3.2.1]octan-7-one, $\text{C}_8\text{H}_{10}\text{O}_3$. *Zeitschrift für Kristallographie: New Crystal Structures* **219**, 459–460 (2004).

Peters, K., E.-M. Peters, F. Rebien, U. Engelhardt and T. Linker. Crystal structure of methyl (1R,4S)-4-hydroxy-1-phenyl-1,4-dihydronaphthalene-2-carboxylate, $\text{C}_{18}\text{H}_{16}\text{O}_3$. *Zeitschrift für Kristallographie: New Crystal Structures* **219**, 479–480 (2004).

Peters, K., E.-M. Peters, F. Rebien, M. Maurer and T. Linker. Crystal structure of (3aS,4S,9R,9aS)-4-hydroxy-9-phenyl-3a,4,9,9a-tetra-hydro-3H-naphtho[2,3-c]furan-1-one, $\text{C}_{18}\text{H}_{16}\text{O}_3$. *Zeitschrift für Kristallographie: New Crystal Structures* **219**, 481–482 (2004).

Peters, K., E.-M. Peters, G. Zahn, H.J. Gutke and D. Spitzner. Crystal structure of ethyl(1S,7R,11R,4'S)-benzo[4,5]-11-(2',2'-dimethyl-1',3'-dioxolan-4'-yl)-10-oxotricyclo[5.3.1.0(2,6)]undec-2(6)-ene-1-carboxylate, $\text{C}_{23}\text{H}_{26}\text{O}_5$. *Zeitschrift für Kristallographie: New Crystal Structures* **219**, 365–367 (2004).

Peters, K., E.-M. Peters, I. Klein and D. Spitzner. Crystal structure of 3-chloro-6-ethyl-5-hydroxy-7-methoxy-1,4-naphthoquinone, $\text{C}_{13}\text{H}_{11}\text{ClO}_4$. *Zeitschrift für Kristallographie: New Crystal Structures* **219**, 241–242 (2004).

Picaud, F., C. Ramseyer, C. Girardet, H. Brune and K. Kern. Grating formation in step flow heterogeneous growth and wavelength selection induced by confinement. *Surface Science* **553**, L68–L74 (2004).

Pierard, N., A. Fonseca, J.F. Colomer, C. Bossuot, J.-M. Benoit, G. Van Tendeloo, J.P. Pirard and J.B. Nagy. Ball milling effect on the structure of single-wall carbon nanotubes. *Carbon* **42**, 1691–1697 (2004).

Pimenov, A. see Bernhard, C.; Holden, T.; Kovaleva, N.N.; Lebon, A.

Pötschke, P., A.R. Bhattacharyya, I. Alig, S.M. Dudkin, A. Leonhardt, C. Täschner, M. Ritschel, S. Roth, B. Hornbostel and J. Cech. Dispersion of Carbon Nanotubes into Thermoplastic Polymers Using Melt Mixing. In: Proceedings of the XVIIIth International Winterschool/Euroconference on Electronic Properties of Novel Materials; H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds.). Kirchberg, Tirol, Austria, 2004. AIP Conference Proceedings **723**, 478–484 (2004). American Institute of Physics, New York, USA.

Poltavets, V., K. Vidyasagar and M. Jansen. Crystal structures and magnetic properties of $\text{CaSb}_x\text{Mn}_{1-x}\text{O}_3$ perovskites. *Journal of Solid State Chemistry* **177**, 1285–1291 (2004).

Pompetzki, M., L. van Wüllen and M. Jansen. Solid state NMR investigations on sodium oxothiophosphates(V). *Zeitschrift für anorganische und allgemeine Chemie* **630**, 384–388 (2004).

Pompetzki, M., L. van Wüllen and M. Jansen. The system $\text{LiSO}_3\text{CF}_3/\text{RbSO}_3\text{CF}_3$: Phase diagram, solid state NMR investigations, and ionic conductivity. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 484–490 (2004).

Ponomarenko, L.A., D.T.N. de Lang, A. de Visser, D. Maude, B.N. Zvonkov, R.A. Lunin and A.M.M. Pruisken. New insights into the plateau-insulator transition in the quantum Hall regime. *Physica E* **22**, 236–239 (2004).

Popovici, M., M. Gich, D. Nižňanský, A. Roig, C. Savii, L. Casas, E. Molins, K. Zaveta, C. Enache, J. Sort, S. de Brion, G. Chouteau and J. Nogués. Optimized synthesis of the elusive $\epsilon\text{-Fe}_2\text{O}_3$ phase via sol-gel chemistry. *Chemistry of Materials* **16**, 5542–5548 (2004).

Postnikov, A.V., J. Kortus and M. Pederson. Density functional Studies of Molecular Magnets. *Psi-k Newsletter* **61**, http://psi-k.dl.ac.uk/newsletters/News_61/Highlight_61.pdf (2004).

Prokofiev, A.V., W. Assmus and R.K. Kremer. Flux and chemical vapor transport growth and characterization of α - and β - $\text{VO}(\text{PO}_3)_2$ single crystals. *Journal of Crystal Growth* **271**, 113–119 (2004).

Rastelli, A., R. Songmuang and O.G. Schmidt. Self-assembled GaAs/AlGaAs quantum dots by molecular beam epitaxy and in situ AsBr_3 etching. *Physica E* **23**, 384–389 (2004).

Rastelli, A., S. Stufler, A. Schliwa, R. Songmuang, C. Manzano, G. Costantini, K. Kern, A. Zrenner, D. Bimberg and O.G. Schmidt. Hierarchical self-assembly of GaAs/AlGaAs quantum dots. *Physical Review Letters* **92**, 166104 (2004).

Rastelli, A., S.M. Ulrich, E.-M. Pavelescu, T. Leinonen, M. Pessa, P. Michler and O.G. Schmidt. Self-assembled quantum dots for single-dot optical investigations. *Superlattices and Microstructures* **36**, 181–191 (2004).

Rastelli, A. see Costantini, G.; Montalenti, F.; Schmidt, O.G.; Stoffel, M.

Raymond, S., S. Studenikin, A. Sachrajda, Z. Wasilewski, S.J. Cheng, W. Sheng, P. Hawrylak, A. Babinski, M. Potemski, G. Ortner and M. Bayer. Excitonic energy shell structure of self-assembled InGaAs/GaAs quantum dots. *Physical Review Letters* **92**, 187402 (2004).

Raz, S., N. Stelzer, R. Kalish, J. Maier and I. Riess. Significant hopping conduction and oxygen diffusion in implanted YSZ at low temperatures of 100–250°C. *Solid State Ionics* **175**, 323–327 (2004).

Reckeweg, O., C. Lind, A. Simon and F.J. DiSalvo. Reactions of alkaline earth metals and nitrogen in sealed niobium ampoules: the formation of MgZn_2 type intermetallic phases in the presence of nitrogen and the new compound $\text{Ba}_5[\text{NbN}_4]\text{N}$. *Journal of Alloys and Compounds* **384**, 98–105 (2004).

Reehuis, M. see Jauch, W.

Reich, A., M. Panthöfer, H. Modrow, U. Wedig and M. Jansen. The structure of $\text{Ba}@C_{74}$. *Journal of the American Chemical Society* **126**, 14428–14434 (2004).

Ren, X.-M., R.K. Kremer and Q.J. Meng. Investigation of the magneto-structural phase transition in [1-benzyl-4-aminopyridinium] [bis(maleonitriledithiolato)nickelate]. *Journal of Magnetism and Magnetic Materials* **272-276**, 924–926 (2004).

Ren, X.-M., H. Okudera and R.K. Kremer. Triappa- $1\kappa\text{O}, 2\kappa\text{O}, 3\kappa\text{O}$ -hexakis- μ -chloroacetato- $1:2\kappa^4\text{O}:\text{O}'$; $2:3\kappa^4\text{O}:\text{O}'$; $1:3\kappa^4\text{O}:\text{O}'$ - μ_3 -oxo-triiron(III) nitrate trihydrate. *Acta Crystallographica E* **60**, M14–M16 (2004).

Ren, X.-M., H. Okudera, R.K. Kremer, Y. Song, C. He, Q.J. Meng and P.H. Wu. Ionic pair complexes with well-separated columnar stack structure based on $[\text{Pt}(\text{mnt})_2]^-$ ions showing unusual magnetic transition: Syntheses, crystal structures, and magnetic properties. *Inorganic Chemistry* **43**, 2569–2576 (2004).

Renard, V., Z.D. Kvon, O. Estibals, A.Y. Plotnikov and J.C. Portal. Commensurability magneto-resistance peaks in a lattice of diffusive scatterers. *Physica E* **21**, 419–422 (2004).

Renard, V., Z.D. Kvon, O. Estibals, J.C. Portal, A.I. Toropov, A.K. Bakarov and M.N. Kostrikin. Negative parabolic magneto-resistance induced by electron-electron interaction in two-dimensional electron gas with diffusive transport. *Physica E* **22**, 328–331 (2004).

Renard, V., E.B. Ol'shanetskiĭ, Z.D. Kvon, J.C. Portal, N.J. Woods, J. Zhang and J.J. Harris. Corrections to conductivity on the metallic side of metal-insulator transition in n-Si/SiGe heterostructures. *Physica E* **22**, 256–259 (2004).

Repetto, D. see Enders, A.

Rösch, O. and O. Gunnarsson. Apparent electron-phonon interaction in strongly correlated systems. *Physical Review Letters* **93**, 237001 (2004).

Rösch, O. and O. Gunnarsson. Electron-Phonon Interaction in the t - J Model. *Physical Review Letters* **92**, 146403 (2004).

Rösch, O. and O. Gunnarsson. Electron-phonon interaction in the three-band model. *Physical Review B* **70**, 224518 (2004).

Roger, J., V. Babizhetskyy, J.F. Halet and R. Guérin. Boron-silicon solid solution: synthesis and crystal structure of a carbon-doped boron-rich SiB_n ($n \sim 30$) compound. *Journal of Solid State Chemistry* **177**, 4167–4174 (2004).

Rohe, D. see Honerkamp, C.

Rödm, T., D. Huvonen, U. Nagel, Y.J. Wang and R.K. Kremer. Low-energy excitations and dynamic Dzyaloshinskii-Moriya interaction in α' - NaV_2O_5 studied by far-infrared spectroscopy. *Physical Review B* **69**, 144410 (2004).

Roth, M., M. Weinelt, T. Fauster, P. Wahl, M.A. Schneider, L. Diekhöner and K. Kern. Scattering of image-potential-state electrons by steps on Cu(001). *Applied Physics A* **78**, 155–159 (2004).

Roth, S. and D. Carroll. *One-Dimensional Metals*. 251 pages, 2004. WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany.

Roth, S., J. Cech, B.B. Hornbostel, E. Palmer, J.D. Liang and J.L. Wang. SWNT quality control. *Abstracts of Papers of The American Chemical Society* **227**, U1251–U1251 (2004).

Roth, S. see Bulusheva, L.G.; Chiu, P.W.; Duesberg, G.S.; Ferrer-Anglada, N.; Glerup, M.; Haluska, M.; Hornbostel, B.; Meyer, J.C.; Oberfell, D.; Paillet, M.; Pötschke, P.; Schmid, M.; Skákalová, V.; Vohrer, U.; Woo, Y.; Yu, H.Y.; Zha, F.X.

Rütt, U. see Stempffer, J.

Ryazanov, M., A. Simon and Hj. Mattausch. Investigation of the LaI_2/H_2 system: Phase relations and stacking disorder. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 104–108 (2004).

Ryazanov, M., A. Simon and Hj. Mattausch. YIH_n : A new family of metal-rich hydride halides. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 1401–1407 (2004).

Ryazanov, M., A. Simon, Hj. Mattausch and R.K. Kremer. The structural change of lanthanum diiodide upon hydrogenation. *Journal of Alloys and Compounds* **374**, 142–145 (2004).

Ryczko, K., M. Kubisa, L. Bryja, J. Misiewicz, R. Stępniewski, M. Byszewski and M. Potemski. Hole subbands and Landau levels in p-type single $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$ heterostructures. *Physica B* **346-347**, 451–454 (2004).

Saint-Paul, M., G. Reményi, P. Lejay, P. Monceau, G. Chouteau and S. de Brion. Ultrasonic study of magneto elastic effects in $\text{Pr}_{1-x}\text{Ca}_x\text{MnO}_3$. *Journal of Magnetism and Magnetic Materials* **272-276**, 2096–2097 (2004).

Salmhofer, M., C. Honerkamp, W. Metzner and O. Lauscher. Renormalization group flows into phases with broken symmetry. *Progress of Theoretical Physics* **112**, 943–970 (2004).

Sanati, M., S.K. Estreicher and M. Cardona. Isotopic Dependence of the Heat Capacity of c-C, Si and Ge: An ab initio Calculation. *Solid State Communications* **131**, 229–233 (2004).

Santamaría-Pérez, D., J. Nuss, J. Haines, M. Jansen and A. Vegas. Iron Silicides and their corresponding oxides: A high pressure study of Fe_5Si_3 . *Solid State Sciences* **6**, 673–378 (2004).

Sarkar, B., S. Frantz, W. Kaim and C. Duboc. High-frequency EPR study of reduced diruthenium and dirhenium polypyridine complexes based on the 1,2,4,5-tetrazine radical bridge. *Dalton Transactions* **2004**, 3727–3731 (2004).

Sarkar, B., W. Kaim, J. Fiedler and C. Duboc. Molecule-bridged mixed-valent intermediates involving the Ru^I oxidation state. *Journal of the American Chemical Society* **126**, 14706–14707 (2004).

Schaarschmidt, M., J. Förstner, A. Knorr, J.P. Prineas, N.C. Nielsen, J. Kuhl, G. Khitrova, H.M. Gibbs, H. Giessen and S.W. Koch. Adiabatically driven electron dynamics in a resonant photonic band gap: Optical switching of a Bragg periodic semiconductor. *Physical Review B* **70**, 233302 (2004).

Schaarschmidt, M., J. Förstner, A. Knorr, J.P. Prineas, N.C. Nielsen, J. Kuhl, G. Khitrova, H.M. Gibbs, H. Giessen and S.W. Koch. Nonlinear light pulse propagation in Bragg-periodic multiple semiconductor quantum well samples: ultrafast switching of a resonant photonic band gap. In: CLEO/IQEC Technical Conference and PhAST Conference. San Francisco, California, USA, 2004. Trends in Optics and Photonics paper IWA3, on CD (2004). Optical Society of America, Long Beach, CA, USA.

Schlecht, U., B. Guse, I. Raible, T. Vossmeier and M. Burghard. A direct synthetic approach to vanadium pentoxide nanofibres modified with silver nanoparticles. *Chemical Communications* **19**, 2184–2185 (2004).

Schlecht, U., L. Kienle, V. Duppel, M. Burghard and K. Kern. Boomerang-shaped VOx nanocrystallites. In: Proceedings of the XVIIIth International Winterschool/Euroconference on Electronic Properties of Novel Materials; H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds.). Kirchberg, Tirol, Austria, 2004. AIP Conference Proceedings **723**, 415–418 (2004). American Institute of Physics, New York, USA.

Schlecht, U., M. Knez, V. Duppel, L. Kienle and M. Burghard. Boomerang-shaped VOX belts: Twinning within isolated nanocrystals. *Applied Physics A* **78**, 527–529 (2004).

Schmid, M., C. Goze-Bac, M. Mehring, S. Roth and P. Bernier. NMR on Cesium Intercalated Carbon Nanotubes. In: Proceedings of the XVIIIth International Winterschool/Euroconference on Electronic Properties of Novel Materials; H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds.). Kirchberg, Tirol, Austria, 2004. AIP Conference Proceedings **723**, 181–184 (2004). American Institute of Physics, New York, USA.

Schmidt, M., B. Ewald, Y. Prots, R. Cardoso-Gil, M. Armbruster, I. Loa, L. Zhang, Y.X. Huang, U. Schwarz and R. Kniep. Growth and characterization of BPO₄ single crystals. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 655–662 (2004).

Schmidt, O.G. Proceedings of the 5th International Workshop on Epitaxial Semiconductors on Patterned Substrates and Novel Index Surfaces (ESPS-NIS) – Preface. *Physica E* **23**, V–VI (2004).

Schmidt, O.G., A. Rastelli, G.S. Kar, R. Songmuang, S. Kiravittaya, M. Stoffel, U. Denker, S. Stufler, A. Zrenner, D. Grützmacher, B.Y. Nguyen and P. Wenckers. Novel nanostructure architectures. *Physica E* **25**, 280–287 (2004).

Schmidt, O.G. see Costantini, G.; Deneke, C.; Denker, U.; Haendel, K.M.; Hayne, A.; Heidemeyer, H.; Kar, G.S.; Kasper, E.; Khorenko, E.; Kiravittaya, S.; Mlayah, A.; Montalenti, F.; Rastelli, A.; Stangl, J.; Stoffel, M.; Teo, K.L.

Schmittl, M., V. Kalsani and L. Kienle. Simple and supramolecular copper complexes as precursors in the HRTEM induced formation of crystalline copper nanoparticles. *Chemical Communications* 1534–1535 (2004).

Schneider, M.A. see Roth, M.; Vitali, L.; Wahl, P.; Wessendorf, M.

Schnelle, W. and R.K. Kremer. Calorimetric Study of the Pyrochlore Compounds Gd₂Mo₂O₇ and Sm₂Mo₂O₇. *Journal of Physics: Condensed Matter* **16**, S685–S690 (2004).

von Schnering, H.G., J.-H. Chang, M. Freiberg, K. Peters, E.-M. Peters, A. Ormeci, L. Schröder, G. Thiele and C. Rohr. Structure and bonding of the mixed-valent platinum trihalides, PtCl₃ and PtBr₃. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 109–116 (2004).

Schön, J.C. Enthalpy landscapes of the earth alkaline metal oxides. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 2354–2366 (2004).

Schön, J.C., A. Hannemann and M. Jansen. Modeling the synthesis of amorphous $\text{Si}_3\text{B}_3\text{N}_7$ via a sequence of dynamically well-separated steps. *Journal of Physical Chemistry B* **108**, 2210–2217 (2004).

Schön, J.C. and M. Jansen. Structure prediction and structure determination of solids via investigation of their energy landscapes. *Zeitschrift für Kristallographie, Supplement* **21**, 6–6 (2004).

Schön, J.C., Z. Čančarević and M. Jansen. Structure prediction of high-pressure phases for alkali metal sulfides. *Journal of Chemical Physics* **121**, 2289–2304 (2004).

Schön, J.C. see Čančarević, Z.P.; Fischer, D.; Hannemann, A.; Jansen, M.

Schröder, A., J. Fleig, H. Drings, R. Würschum, J. Maier and W. Sitte. Excess free enthalpy of nanocrystalline silver, determined in a solid electrolyte cell. *Solid State Ionics* **173**, 95–101 (2004).

Schünemann, V., C. Jung, F. Lendzian, A.L. Barra, T. Teschner and A.X. Trautwein. Mössbauer- and EPR-snapshots of an enzymatic reaction: The cytochrome P450 reaction cycle. *Hyperfine Interactions* **156**, 247–256 (2004).

Schünemann, V., F. Lendzian, C. Jung, J. Contzen, A.L. Barra, S.G. Sligar and A.X. Trautwein. Tyrosine radical formation in the reaction of wild type and mutant cytochrome P450cam with peroxy acids – A multifrequency EPR study of intermediates on the millisecond time scale. *Journal of Biological Chemistry* **279**, 10919–10930 (2004).

Schuster, M.F.H., W.H. Meyer, M. Schuster and K.-D. Kreuer. Toward a new type of anhydrous organic proton conductor based on immobilized imidazole. *Chemistry of Materials* **16**, 329–337 (2004).

Schuster, M. see Kreuer, K.-D.; Schuster, M.F.H.

Sekiyama, A., H. Fujiwara, S. Imada, S. Suga, H. Eisaki, S.I. Uchida, K. Takegahara, H. Harima, Y. Saitoh, I.A. Nekrasov, G. Keller, D.E. Kondakov, A.V. Kozhevnikov, T. Pruschke, K. Held, D. Vollhardt and V.I. Anisimov. Mutual Experimental and Theoretical Validation of Bulk Photoemission Spectra of $\text{Sr}_{1-x}\text{Ca}_x\text{VO}_3$. *Physical Review Letters* **93**, 156402 (2004).

Serrano, J., A. Cantarero, M. Cardona, N. Garro, R. Lauck, R.E. Tallman, T.M. Ritter and B.A. Weinstein. Raman scattering in β -ZnS. *Physical Review B* **69**, 014301 (2004).

Serrano, J., A.H. Romero, F.J. Manjón, R. Lauck, M. Cardona and A. Rubio. Pressure dependence of the lattice dynamics of ZnO: An *ab initio* approach. *Physical Review B* **69**, 094306 (2004).

Sharma, S., A. Ramanan and M. Jansen. Hydrothermal synthesis of new organically intercalated layered vanadates. *Solid State Ionics* **170**, 93–98 (2004).

Sheikin, I., A. Gröger, S. Raymond, D. Jaccard, D. Aoki, H. Harima and J. Flouquet. De Haas – van Alphen effect study of CePd_2Si_2 . *Physica B* **346**, 310–313 (2004).

Shevchenko, S.N., Y.V. Pershin and I.D. Vagner. Magnetization of nuclear-spin-polarization-induced quantum ring. *Physica E* **24**, 82–86 (2004).

Shikano, M., R.K. Kremer, M. Ahrens, H.-J. Koo, M.-H. Whangbo and J. Darriet. Synthesis and characterization of a magnetic semiconductor Na_2RuO_4 containing one-dimensional Chains of Ru^{6+} . *Inorganic Chemistry* **43**, 5–7 (2004).

Siddiki, A. and R.R. Gerhardt. Incompressible strips in dissipative Hall bars as origin of quantized Hall plateaus. *Physical Review B* **70**, 195335 (2004).

Sidis, Y., S. Pailhès, B. Keimer, P. Bourges, C. Ulrich and L.P. Regnault. Magnetic resonant excitations in High- T_c superconductors. *physica status solidi (b)* **241**, 1204–1210 (2004).

Sikora, M., C. Kapusta, D. Zajac, W. Tokarz, C.J. Oates, M. Borowiec, D. Rybicki, E. Goering, P. Fischer, G. Schütz, J.M. De Teresa and M.R. Ibarra. X-MCD magnetometry of CMR perovskites $\text{La}_{0.67-y}\text{RE}_y\text{Ca}_{0.33}\text{MnO}_3$. *Journal of Magnetism and Magnetic Materials* **272-276**, 2148–2150 (2004).

Simon, A. 12th Meeting of the GDC Committee on Solid-State Chemistry and Materials Research – Abstracts of communications and posters sessions. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 1685–1685 (2004).

Simon, A. Alkali and Alkaline Earth Metal Suboxides and Subnitrides. In: Molecular Clusters of the Main Group Elements, 246–266 (2004); M. Driess, N. Nöth (Eds.). WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany.

Simon, A. and T. Gulden. La_2C_3 and its reaction with hydrogen. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 2191–2198 (2004).

Simon, A., J. Köhler, P. Keller, J. Weitkamp, A. Buchholz and M. Hunger. Phase transformation of zeolites Cs,Na-Y and Cs,Na-X impregnated with cesium hydroxide. *Microporous and Mesoporous Materials* **68**, 143–150 (2004).

Simon, A. see Ahn, K.; Babizhetskyy, V.; Deisenhofer, J.; Deng, S.; Gulo, F.; Haase, J.; He, M.; Kienle, L.; Kremer, R.K.; Mattausch, H.J.; Oeckler, O.; Reckweg, O.; Ryazanov, M.

Sitte, W., J. Fleig and H.D. Wiemhofer. Proceedings of EMRS Symposium K on Solid State Ionics: High Temperature vs. Low Temperature Defect Chemistry – Preface. *Solid State Ionics* **173**, IX–IX (2004).

Skákalová, V., U. Dettlaff-Weglikowska and S. Roth. Gamma-irradiated and functionalized single wall nanotubes. *Diamond and Related Materials* **13**, 296–298 (2004).

Skákalová, V., U. Dettlaff-Weglikowska and S. Roth. Transport Properties of Functionalized Single Wall Nanotubes Buckypaper. In: Proceedings of the XVIIIth International Winterschool/Euroconference on Electronic Properties of Novel Materials; H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds.). Kirchberg, Tirol, Austria, 2004. *AIP Conference Proceedings* **723**, 189–192 (2004). American Institute of Physics, New York, USA.

Skákalová, V. see Ferrer-Anglada, N.

Smet, J.H., R.A. Deutschmann, F. Ertl, W. Wegscheider, G. Abstreiter and K. von Klitzing. Anomalous-filling-factor-dependent nuclear-spin polarization in a 2D electron system. *Physical Review Letters* **92**, 086802 (2004).

Smet, J.H. see Geisler, M.C.; Grayson, M.; Gubarev, S.I.; Huels, J.; Ilani, S.; Kukushkin, I.V.; Mani, R.G.; Martin, J.; Mikhailov, S.; Stern, O.

Smirnov, D., S. Raymond, S. Studenikin, A. Babinski, J. Leotin, P. Frings, M. Potemski and A. Sachrajda. Electronic structure of InAs/GaAs self-assembled quantum dots studied by high-excitation luminescence in magnetic fields up to 73 T. *Physica B* **346-347**, 432–436 (2004).

Snoke, D.W., J. Hübner, W.W. Rühle and M. Zundel. Spin flip from dark to bright states in InP quantum dots. *Physical Review B* **70**, 115329 (2004).

Sörgel, T. and M. Jansen. Structure refinement, physical properties and electronic structure of new electrochemically copper intercalated group Vb ditellurides Cu_xMTe_2 (M = V, Nb, Ta). *Solid State Sciences* **6**, 1259–1267 (2004).

Sofin, M. and M. Jansen. Alkalimetalloxocobaltate neuen Typs. *Zeitschrift für Kristallographie, Supplement* **21**, 183–183 (2004).

Sofin, M., E.-M. Peters and M. Jansen. Crystal structure of hexapotassium dicobaltate(II), $\text{K}_6\text{Co}_2\text{O}_5$. *Zeitschrift für Kristallographie: New Crystal Structures* **219**, 339–340 (2004).

Sofin, M., E.-M. Peters and M. Jansen. Synthesis and Crystal Structure of $\text{Na}_7\text{Cu}_3\text{O}_8$, Containing a New Type. of Oxocuprate(III) Oligoanion. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 1547–1549 (2004).

Sofin, M., E.-M. Peters and M. Jansen. Synthesis, structure and magnetic properties of $\text{Na}_6\text{Co}_2\text{O}_6$. *Journal of Solid State Chemistry* **177**, 2550–2556 (2004).

Sofin, M., E.-M. Peters and M. Jansen. Synthesis, structure and magnetic properties of $\text{Na}_9\text{Co}_2\text{O}_7$, a new mixed-valent sodium cobaltate(II,III). *Solid State Sciences* **6**, 339–344 (2004).

Sofin, M., E.-M. Peters and M. Jansen. Unusual charge distribution in $\text{Na}_7(\text{CoO}_3)_2$. *Solid State Sciences* **6**, 1163–1168 (2004).

Sofin, M. see Kulakov, A.B.; Maljuk, A.

Sofina, N. see Dinnebier, R.E.; Wüllen van, L.

Soltan, S., J. Albrecht, G. Cristiani and H.-U. Habermeier. The role of spin diffusion quasiparticle in CMR/HTSC heterostructures. *physica status solidi (c)* **1**, 1836–1839 (2004).

Soltan, S., J. Albrecht and H.-U. Habermeier. Ferromagnetic/superconducting bilayer structure: A model system for spin diffusion length estimation. *Physical Review B* **70**, 144517 (2004).

Soltan, S., C. Ulrich, G. Cristiani and H.-U. Habermeier. Strain effects on the polaron binding energy in PrBa₂Cu₃O_{7- δ} thin films. *Physica C* **403**, 269–275 (2004).

Soltan, S. see Albrecht, J.; Habermeier, H.-U.

Somer, M., C. Gül, R. Müllmann, B.D. Mosel, R.K. Kremer and R. Pöttgen. Vibrational Spectra and Magnetic Properties of Eu₃[BN₂]₂ and LiEu₄[BN₂]₃. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 389–393 (2004).

Somer, M., Ö. Yaren, O. Reckeweg, Y. Prots and W. Carrillo-Cabrera. Ca₂[BN₂]H: The first nitridoborate hydride – Synthesis, crystal structure, and vibrational spectra. *Zeitschrift für anorganische und allgemeine Chemie* **630**, 1068–1073 (2004).

Sommermann, T., B.G. Kim, K. Peters, E.-M. Peters and T. Linker. Short and stereoselective synthesis of C-glycosylated glycine derivatives from glycals by radical addition and reduction. *Chemical Communications* 2624–2625 (2004).

Song, J.-L., J.-G. Mao, H.-Y. Zeng, R.K. Kremer and Z.-C. Dong. Synthesis, crystal structures and properties of two new metal complexes of syn-2 pyridinealdoxime with a ‘metallocrown’ unit and a 1D double chain structure. *Inorganic Chemistry Communications* **6**, 891–895 (2004).

Song, J.L., J.G. Mao, Y.Q. Sun, H.Y. Zeng, R.K. Kremer and A. Clearfield. Hydrothermal syntheses, characterizations and crystal structures of a new lead(II) carboxylate-phosphonate with a double layer structure and a new nickel(II) carboxylate-phosphonate containing a hydrogen-bonded 2D layer with intercalation of ethylenediamines. *Journal of Solid State Chemistry* **177**, 633–641 (2004).

Songmuang, R. see Costantini, G.; Rastelli, A.; Schmidt, O.G.

Šordan, R. see Ahlert, S.; Balasubramanian, K.

Soubatch, S. and U. Starke. Growth of ultrathin Ag films on 4H-SiC(0001). In: Proceedings of the 10th International Conference on Silicon Carbide and Related Materials 2003; R. Madar, J. Camassel, E. Blanquet (Eds.). Lyon, France, 2003. *Materials Science Forum* **457-460**, 419–422 (2004). Trans Tech Publications, Zurich, Switzerland.

Stangl, J., T. Schüllli, A. Hesse, V. Holý, G. Bauer, M. Stoffel and O.G. Schmidt. Structural properties of semiconductor nanostructures from x-ray scattering. *Advances in Solid State Physics* **44**, 227–240 (2004).

Starke, U. Atomic structure of SiC surfaces. In: *Silicon Carbide: Recent Major Advances*, 281–316 (2004); W.J. Choyke, H. Matsunami, G. Pensl (Eds.). Springer Verlag, Berlin/Heidelberg, Germany.

Starke, U., J. Bernhardt, J. Schardt, A. Seubert and K. Heinz. Tailoring the SiC subsurface stacking by the chemical potential. In: Proceedings of the 10th International Conference on Silicon Carbide and Related Materials 2003; R. Madar, J. Camassel, E. Blanquet (Eds.). Lyon, France, 2003. *Materials Science Forum* **457-460**, 415–418 (2004). Trans Tech Publications, Zurich, Switzerland.

Starke, U., M. Tallarida, A. Kumar, K. Horn, O. Seifarth and L. Kipp. Reconstruction of cleaved 6H-SiC surfaces. In: Proceedings of the 10th International Conference on Silicon Carbide and Related Materials 2003; R. Madar, J. Camassel, E. Blanquet (Eds.). Lyon, France, 2003. *Materials Science Forum* **457-460**, 391–394 (2004). Trans Tech Publications, Zurich, Switzerland.

Starke, U. see Heinz, K.; Kumar, A.; Soubatch, S.

Staun Olsen, J., L. Gerward, V. Kanchana and G. Vaitheeswaran. The bulk modulus of ThO₂ – an experimental and theoretical study. *Journal of Alloys and Compounds* **381**, 37–40 (2004).

Stepniewski, R., A. Wyszomolka and M. Potemski. Electronic structure of shallow impurities in GaN studied via bound exciton magneto-optics. *physica status solidi (a)* **201**, 181–189 (2004).

Stepanov, A.G., J. Hebling and J. Kuhl. Generation, tuning, and shaping of narrow-band, picosecond THz pulses by two-beam excitation. *Optics Express* **12**, 4650–4658 (2004).

Stepanov, A.G. see Hebling, J.

Stepanow, S., M. Lingenfelder, A. Dmitriev, N. Lin, T.-. Strunskus, C. Wöll, J.V. Barth and K. Kern. Bottom-up nanotechnology: molecular engineering at surfaces. In: *BESSY Highlights 2003*, 20–21 (2004). Berliner Elektronenspeicherung-Gesellschaft für Synchrotronstrahlung m.b.H. – BESSY, Berlin. BESSY GmbH, Berlin, Berlin, Germany.

Stepanow, S., M. Lingenfelder, A. Dmitriev, H. Spillmann, E. Delvigne, N. Lin, X.B. Deng, C.Z. Cai, J.V. Barth and K. Kern. Steering molecular organization and host-guest interactions using two-dimensional nanoporous coordination systems. *Nature Materials* **3**, 229–233 (2004).

Stepanow, S., T. Strunskus, M. Lingenfelder, A. Dmitriev, H. Spillmann, N. Lin, J.V. Barth, C. Wöll and K. Kern. Deprotonation-driven phase transformations in terephthalic acid self-assembly on Cu(100). *Journal of Physical Chemistry B* **108**, 19392–19397 (2004).

Stepanow, S. see Lingenfelder, M.A.

Stern, O., N. Freytag, A. Fay, W. Dietsche, J.H. Smet, K. von Klitzing, D. Schuh and W. Wegscheider. NMR study of the electron spin polarization in the fractional quantum Hall effect of a single quantum well: Spectroscopic evidence for domain formation. *Physical Review B* **70**, 075318 (2004).

Stern, O. see Lok, J.G.S.

Stoffel, M., G.S. Kar, U. Denker, A. Rastelli, H. Sigg and O.G. Schmidt. Shape, facet evolution and photoluminescence of Ge islands capped with Si at different temperatures. *Physica E* **23**, 421–427 (2004).

Stoffel, M. see Kar, G.S.; Kasper, E.; Khorenko, E.; Schmidt, O.G.; Stangl, J.

Stremper, J., U. Rütt, S.P. Bayrakci, T. Brückel and W. Jauch. Magnetic properties of transition metal fluorides MF_2 ($M = \text{Mn, Fe, Co, Ni}$) via high-energy photon diffraction. *Physical Review B* **69**, 014417 (2004).

Stremper, J., I. Zegkinoglou, U. Rütt, M. von Zimmermann, C. Bernhard, C.T. Lin, T. Wolf and B. Keimer. Oxygen Superstructures Throughout the Phase Diagram of $(\text{Y,Ca})\text{Ba}_2\text{Cu}_3\text{O}_{6+x}$. *Physical Review Letters* **93**, 157007 (2004).

Stremper, J. see Bayrakci, S.P.; Maljuk, A.; Nothardt, A.

Studenikin, S.A., M. Potemski, P.T. Coleridge, A.S. Sachrajda and Z.R. Wasilewski. Microwave radiation induced magneto-oscillations in the longitudinal and transverse resistance of a two-dimensional electron gas. *Solid State Communications* **129**, 341–345 (2004).

Suchocki, A., S. Biernacki, G. Boulon, A. Brenier, M. Potemski and A. Wyszomolka. Enhanced Zeeman effect in $\text{GGG} : \text{Mn}^{4+}$, Ca crystals. *Chemical Physics* **298**, 267–272 (2004).

Svane, A., G. Santi, Z. Szotek, W.M. Temmerman, P. Strange, M. Horne, G. Vaitheeswaran, V. Kanchana, L. Petit and H. Winter. Electronic structure of Sm and Eu chalcogenides. *physica status solidi (b)* **241**, 3185–3192 (2004).

Syassen, K. see Abd-Elmeguid, M.M.; Camacho, J.; Kunc, K.; Loa, I.; Manjón, F.J.; Wang, X.

Sychev, O., Y.F. Zhukovskii, E.A. Kotomin and G. Borstel. Ab initio calculations of copper nanostructures on MgO substrate. *Solid State Phenomena* **99-100**, 219–223 (2004).

Takigawa, M., K. Kodama, M. Horvatić, C. Berthier, H. Kageyama, Y. Ueda, S. Miyahara, F. Becca and F. Mila. The 1/8-magnetization plateau state in the 2D quantum antiferromagnet $\text{SrCu}_2(\text{BO}_3)_2$: spin superstructure, phase transition, and spin dynamics studied by high-field NMR. *Physica B* **346-347**, 27–33 (2004).

Tallman, R.E., T.M. Ritter, B.A. Weinstein, A. Cantarero, J. Serrano, R. Lauck and M. Cardona. Pressure measurements of TO-phonon anharmonicity in isotopic ZnS. *physica status solidi (b)* **241**, 491–494 (2004).

Tallman, R.E., J. Serrano, A. Cantarero, N. Garro, R. Lauck, T.M. Ritter, B.A. Weinstein and M. Cardona. Pressure-Raman study of resonant TO(Γ)-two-phonon decay processes in ZnS: Comparison of three isotope compositions. *physica status solidi (b)* **241**, 3143–3148 (2004).

Teo, K.L., Z.X. Shen and O.G. Schmidt. Raman scattering studies of Ge/Si islands under hydrostatic pressure. *physica status solidi (b)* **241**, 3274–3278 (2004).

Thomas, F., O. Jarjayes, C. Duboc, C. Philouze, E. Saint-Aman and J.L. Pierre. Intramolecularly hydrogen-bonded versus copper(II) coordinated mono- and bis-phenoxy radicals. *Dalton Transactions* **2004**, 2662–2669 (2004).

Thomas, F., O. Jarjayes, M. Jamet, S. Hamman, E. Saint-Aman, C. Duboc and J.L. Pierre. How single and bifurcated hydrogen bonds influence proton-migration rate constants, redox, and electronic properties of phenoxy radicals. *Angewandte Chemie International Edition* **43**, 594–597 (2004).

Tkachenko, V.A., Z.D. Kvon, O.A. Tkachenko, D.G. Baksheev, O. Estibals and J.C. Portal. Coulomb blockade in triangular lateral small-size quantum dots. *Physica E* **21**, 469–473 (2004).

Tovstonog, S.V., L.V. Kulik, V.E. Kirpichev, I.V. Kukushkin, W. Dietsche and K. von Klitzing. Collective excitations in double quantum wells with strong tunnel coupling. *JETP Letters* **79**, 48–52 (2004).

Tregenna-Piggott, P.L.W., D. Spichiger, G. Carver, B. Frey, R. Meier, H. Weihe, J.A. Cowan, G.J. McIntyre, G. Zahn and A.L. Barra. Structure and bonding of the vanadium(III) hexa-aqua cation. 1. Experimental characterization and ligand-field analysis. *Inorganic Chemistry* **43**, 8049–8060 (2004).

Tsoi, M., V.S. Tsoi and P. Wyder. Generation of current-driven magnons in Co/Cu multilayers with antiferromagnetic alignment of adjacent Co layers. *Physical Review B* **70**, 012405 (2004).

Ulrich, C. see Bernhard, C.; Kovaleva, N.N.; Lebon, A.; Maljuk, A.; Pailhès, S.; Sidis, Y.; Soltan, S.

Vajenine, G. see Ganin, A.Y.

Vedenev, S.I. and D.K. Maude. Metal-to-insulator crossover and pseudogap in single-layer $\text{Bi}_{2+x}\text{Sr}_{2-x}\text{Cu}_{1+y}\text{O}_{6+\delta}$ single crystals in high magnetic fields. *Physical Review B* **70**, 184524 (2004).

Velden, A. and M. Jansen. On the inverse perovskites M_3TO ($\text{M} = \text{Ca}, \text{Sr}, \text{Yb}$; $\text{T} = \text{Si}, \text{Ge}, \text{Sn}, \text{Pb}$). *Zeitschrift für anorganische und allgemeine Chemie* **630**, 234–238 (2004).

Vensky, S., L. Kienle, R.E. Dinnebier and M. Jansen. Zur Realstruktur von Na_3BiO_4 . *Zeitschrift für Kristallographie, Supplement* **21**, 186–186 (2004).

Veremchuk, I.V., V.S. Babizhetskyy, N.F. Chaban and Y.B. Kuz'ma. Synthesis and structure of $\text{ErNi}_{7.9}\text{B}_2$. *Inorganic Materials* **40**, 604–609 (2004).

Vitali, L., M. Burghard, M.A. Schneider and K. Kern. Vibrational spectromicroscopy of graphite and carbon nanotubes. In: *Proceedings of the XVIIIth International Winterschool/Euroconference on Electronic Properties of Novel Materials*; H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds.). Kirchberg, Tirol, Austria, 2004. *AIP Conference Proceedings* **723**, 168–172 (2004). American Institute of Physics, New York, USA.

Vitali, L., M. Burghard, M.A. Schneider, L. Liu, S.Y. Wu, C.S. Jayanthi and K. Kern. Phonon spectromicroscopy of carbon nanostructures with atomic resolution. *Physical Review Letters* **93**, 136103 (2004).

Vitali, L., M.A. Schneider, K. Kern, L. Wirtz and A. Rubio. Phonon and plasmon excitation in inelastic electron tunneling spectroscopy of graphite. *Physical Review B* **69**, 121414 (2004).

Vitali, L. see Wahl, P.

Vladimirova, M., G. Trimarchi, A. Baldereschi, J. Weckesser, K. Kern, J.V. Barth and A. De Vita. Substrate-induced supramolecular ordering of functional molecules: theoretical modelling and STM investigation of the PEBA/Ag(111) system. *Acta Materialia* **52**, 1589–1595 (2004).

Vohrer, U., I. Kolaric, M.H. Haque, S. Roth and U. Detlaff-Weglikowska. Carbon nanotube sheets for the use as artificial muscles. *Carbon* **42**, 1159–1164 (2004).

Wahl, P., L. Diekhöner, M.A. Schneider, L. Vitali, G. Wittich and K. Kern. Kondo temperature of magnetic impurities at surfaces. *Physical Review Letters* **93**, 176603 (2004).

Wahl, P. see Roth, M.

Waldmann, O., S. Carretta, P. Santini, R. Koch, A.G.M. Jansen, G. Amoretti, R. Caciuffo, L. Zhao and L.K. Thompson. Quantum magneto-oscillations in a supramolecular Mn(II)-[3×3] grid. *Physical Review Letters* **92**, 096403 (2004).

Wang, X., I. Loa, K. Syassen, M. Hanfland and B. Ferrand. Structural properties of the zircon- and scheelite-type phases of YVO₄ at high pressure. *Physical Review B* **70**, 064109 (2004).

Wang, X., F.X. Zhang, I. Loa, K. Syassen, M. Hanfland and Y.L. Mathis. Structural properties, infrared reflectivity, and Raman modes of SnO at high pressure. *physica status solidi (b)* **241**, 3168–3178 (2004).

Wang, X. see Abd-Elmeguid, M.M.; Loa, I.

Wang, Y. see Rööm, T.

Wedig, U. see Karpov, A.; Panthöfer, M.; Reich, A.

Weis, J. Single-Electron Devices. In: CFN Lectures on Functional Nanostructures; K. Busch, A. Powell, C. Röthig, G. Schön, J. Weissmüller (Eds.). Springer Lecture Notes in Physics **658**, (2004). Springer Verlag, Berlin/Heidelberg, Germany.

Weis, J. Transport Properties: Quantum Hall Effect. In: Encyclopedia of Condensed Matter Physics, (2004); F. Bassani, J. Liedl, P. Wyder (Eds.). Elsevier Ltd., Oxford, UK.

Weis, J. see Huels, J.; Klaffs, T.; Zhang, Z.H.

Wessendorf, M., C. Wiemann, M. Bauer, M. Aeschlimann, M.A. Schneider, H. Brune and K. Kern. Electronic surface structure of n-ML Ag/Cu(111) and Cs/n-ML Ag/Cu(111) as investigated by 2PPE and STS. *Applied Physics A* **78**, 183–188 (2004).

Wiersma, R.D., J.G.S. Lok, S. Kraus, W. Dietsche, K. von Klitzing, D. Schuh, M. Bichler, H.-P. Tranitz and W. Wegscheider. Activated transport in the separate layers that form the $\nu_T = 1$ exciton condensate. *Physical Review Letters* **93**, 266805 (2004).

Wittich, G. see Wahl, P.

Wolos, A., A. Wysmolek, M. Kaminska, A. Twardowski, M. Bockowski, I. Grzegory, S. Porowski and M. Potemski. Neutral Mn acceptor in bulk GaN in high magnetic fields. *Physical Review B* **70**, 245202 (2004).

Woo, Y., M. Liebau, G.S. Duesberg and S. Roth. Carbon Nanotubes and Metal Electrodes. In: Proceedings of the XVIIIth International Winterschool/Euroconference on Electronic Properties of Novel Materials; H. Kuzmany, J. Fink, M. Mehring, S. Roth (Eds.). Kirchberg, Tirol, Austria, 2004. AIP Conference Proceedings **723**, 516–519 (2004). American Institute of Physics, New York, USA.

Wu, P.H., L.X. You, J. Chen, Z.M. Ji, W.W. Xu, L. Kang, C.T. Lin and B. Liang. Intrinsic Josephson junction arrays containing only a few junctions. *Physica C* **405**, 65–69 (2004).

Wu, X.C., A.M. Bittner and K. Kern. Microcontact printing of CdS/dendrimer nanocomposite patterns on silicon wafers. *Advanced Materials* **16**, 413–417 (2004).

van Wüllen, L., G. Schwering, E. Naumann and M. Jansen. MAS-NMR at very high temperatures. *Solid State Nuclear Magnetic Resonance* **26**, 84–86 (2004).

van Wüllen, L., N. Sofina and M. Jansen. Cation mobility and anion reorientation in sodium trifluoromethyl sulfonate. *ChemPhysChem* **5**, 1906–1911 (2004).

Wysmolek, A., B. Chwalisz, M. Potemski, R. Stępniewski, A. Babinski, S. Raymond and V. Thierry-Mieg. Emission from mesoscopic-size islands formed in a GaAs/AlAs double layer structure. *Acta Physica Polonica A* **106**, 367–381 (2004).

Wysmolek, A., K.P. Korona, R. Stępniewski, J.M. Baranowski, J. Bloniarz, M. Potemski, R.L. Jones, D.C. Look, J. Kuhl, S.S. Park and S.K. Lee. Reply to “Comment on ‘Recombination of excitons bound to oxygen and silicon donors in freestanding GaN’”. *Physical Review B* **69**, 157302 (2004).

Yamasaki, A. see Mo, S.-K.

Yamase, H. Excitation spectrum of d-wave Fermi surface deformation. *Physical Review Letters* **93**, 266404 (2004).

Yang, J.H., F. Zhang, Y. Xu and M. Guillot. Main factors in determining the magneto-optical behavior of rare-earth compounds. *Journal of Magnetism and Magnetic Materials* **272-276**, 2236–2237 (2004).

Yanson, I.K., S.I. Beloborod’ko, Y.G. Naidyuk, O.V. Dolgov and A.A. Golubov. Phonon self-energy effects in the superconducting energy gap of MgB₂ point-contact spectra. *Physical Review B* **69**, 100501(R) (2004).

Yoshiasa, A., A. Nakatsuka, M. Okube and H. Okudera. Graphite-hexagonal Diamond Transition and Surviving Compressed Graphite. In: CAM 2004 Proceedings ‘Applied Mineralogy: Developments in Science and Technology’; 93–96 (2004); M. Pecchio, F.R.D. Andrade, L.Z. D’Agostino, H. Kahn, L.M. Sant’Agostino, M.M.M.L. Tassinari (Eds.). International Council for Applied Mineralogy do Brasil, São Paulo, Brazil. Águas de Lindóia, Brazil, 2004.

Yu, H.Y., D.S. Lee, S.S. Kim, B. Kim, S.W. Lee, J.G. Park, S.H. Lee, G.C. McIntosh, Y.W. Park, M.S. Kabir, E.E.B. Campbell and S. Roth. Current enhancement with alternating gate voltage in the Coulomb-blockade regime of a single-wall carbon nanotube. *Applied Physics A* **79**, 1613–1615 (2004).

Yu, L. see Bernhard, C.; Zhang, P.X.

Zaitsev, D.D., P.E. Kazin, E.A. Gravchikova, L.A. Trusov, S.E. Kushnir, Y.D. Tretyakov and M. Jansen. Synthesis of magnetic glass ceramics containing fine SrFe₁₂O₁₉ particles. *Mendeleviev Communications* **2004**, 171–173 (2004).

Zaitsev, D.D., P.E. Kazin, Y.D. Tretyakov, Y.V. Maksimov, I.P. Suzdalev and M. Jansen. Synthesis and magnetic properties of SrO-Fe₂O₃-B₂O₃-Bi₂O₃ glass-ceramics. *Inorganic Materials* **40**, 1111–1115 (2004).

Zalinge van, H., R.W. van der Heijden, J.H. Wolter, B. Ozyilmaz, A. Bohm and P. Wyder. Lateral photoelectric effect studies of a two-dimensional electron gas under quantum Hall conditions. *Semiconductor Science and Technology* **19**, 1153–1160 (2004).

Zaytsev, D.D., P.E. Kazin, A.V. Garshev, Y.D. Tretyakov and M. Jansen. Synthesis and magnetic properties of SrO-Fe₂O₃-B₂O₃ glass-ceramics. *Inorganic Materials* **40**, 881–885 (2004).

Zegenhagen, J., F.U. Renner, A. Reitzle, T.L. Lee, S. Warren, A. Stierle, H. Dosch, G. Scherb, B.O. Fimland and D.M. Kolb. In situ X-ray analysis of solid/electrolyte interfaces: electrodeposition of Cu and Co on Si(111): H and GaAs(001) and corrosion of Cu₃Au(111). *Surface Science* **573**, 67–79 (2004).

Zegkinoglou, I. see Stempfer, J.

Zeng, H.-Y. see Song, J.L.

Zentgraf, T., A. Christ, J. Kuhl and H. Giessen. Tailoring the ultrafast dephasing of quasiparticles in metallic photonic crystals. *Physical Review Letters* **93**, 243901 (2004).

Zentgraf, T., J. Kuhl and H. Giessen. Ultrafast polariton beating in metallic photonic crystal slabs. In: CLEO/IQEC Technical Conference and PhAST Conference. San Francisco, California, USA, 2004. Trends in Optics and Photonics paper JWB3, on CD (2004). Optical Society of America, Long Beach, CA, USA.

Zentgraf, T. see Christ, A.

Zeyher, R. and A. Greco. Superconductivity, d-charge density wave and electronic Raman scattering in high-T_c superconductors. *Physica C* **408-410**, 410–411 (2004).

Zeyher, R. see Aristov, D.N.; Greco, A.; Koch, E.

Zha, F.X., G. Bertsche, M. Croitoru, C. Kentsch, S. Roth and D.P. Kern. Observation of single-wall carbon nanotube rings by scanning tunneling microscopy and spectroscopy. *Carbon* **42**, 893–895 (2004).

Zhang, H., X.-M. Ren, J.L. Xie, Y.-Z. Li and Q.J. Meng. 1-(3-Fluorobenzyl)pyridinium bis(maleonitriledithiolato- κ^2 S,S')nickelate(III) acetonitrile solvate. *Acta Crystallographica E* **60**, M960–M962 (2004).

Zhang, P.X., C. Wang, G.Y. Zhang, L. Yu, W.K. Lee and H.-U. Habermeier. LaCaMnO₃ thin film laser energy/power meter. *Optics & Laser Technology* **36**, 341–343 (2004).

Zhang, Z.H., A.S. Plaut, J. Weis, J.P. Harbison, L.T. Florey, M.C. Holland and C.R. Stanley. Ground-state transition in few-electron quantum dots observed by magnetophotoluminescence. *Physical Review B* **68**, 073302 (2004).

Zhu, X.B., S.P. Zhao, G.H. Chen, H.J. Tao, C.T. Lin, S.S. Xie and Q.S. Yang. Controllable Bi₂Sr₂CaCu₂O_{8+ δ} /Au contacts fabricated at liquid-nitrogen temperatures. *Physica C* **403**, 52–56 (2004).

Zhukov, A.A., E.T. Filby, P.A.J. de Groot, H. Kupfer, T. Wolf, A.G.M. Jansen and E. Mossang. Vortex phases in YBa₂Cu₃O_y ($y = 6.5$) for B parallel to CuO: impact of regular and random pinning arrays. *Physica C* **404**, 450–454 (2004).

Zhukovskii, Y.F., E.A. Kotomin and G. Borstel. Adsorption of single Ag and Cu atoms on regular and defective MgO(001) substrates: an *ab initio* study. *Vacuum* **74**, 235–240 (2004).

Zhukovskii, Y.F., E.A. Kotomin, D. Fuks and S. Dorfman. First principles slab calculations of the regular Cu/MgO(001) interface. *Surface Science* **566-568**, 122–129 (2004).

Zhukovskii, Y.F., E.A. Kotomin, D. Fuks, S. Dorfman, A.M. Stoneham and G. Borstel. Adhesion trends and growth mode of ultra-thin copper films on MgO. *Journal of Physics: Condensed Matter* **16**, 4881–4896 (2004).

Zijlstra, E.S. Electronic structure of the octagonal tiling. *Journal of Non-Crystalline Solids* **334&335**, 126–129 (2004).

Zijlstra, E.S., J. Kortus, M. Krajči, Z.M. Stadnik and S.K. Bose. Structure, electronic density of states and electric field gradients of icosahedral AlCuFe: An *ab initio* study of the original and a modified Cockayne model. *Physical Review B* **69**, 094206 (2004).

Zinkevich, M., S. Geupel, H. Nitsche, M. Ahrens and F. Aldinger. Study of the La₂O₃ – Ga₂O₃ system by experiment and thermodynamic calculations. *Journal of Phase Equilibria and Diffusion* **25**, 437–447 (2004).

Zinkevich, M., F.M. Morales, H. Nitsche, M. Ahrens, M. Rühle and F. Aldinger. Microstructural and thermodynamic study of γ -Ga₂O₃. *Zeitschrift für Metallkunde* **95**, 756–762 (2004).

Zurek, E. and J. Autschbach. Density Functional Calculations of the ¹³C NMR Chemical Shifts in (9,0) Single-Walled Carbon Nanotubes. *Journal of the American Chemical Society* **126**, 13079–13088 (2004).

Zurek, E. and T. Ziegler. Theoretical studies of the structure and function of MAO (methylaluminoxane). *Progress in Polymer Science* **29**, 107–148 (2004).