

Symposium on
Functional Transition Metal Compounds & Multiferroics
Cologne 26.09.05 – 28.09.05

Venue: Department of Chemistry, University of Cologne,

Monday 26th September

- 14:00 14:30 *Frustrated $S = 1/2$ square lattice systems in complex vanadium oxides*
C. Geibel, MPI für Chemische Physik fester Stoffe, Dresden, Germany
- 14:30 15:00 *Misfit and perovskite cobaltites: crucial role of cobalt cation spin-states upon transport and magnetic properties*
A. Maignan, CRISMAT CNRS/ENSI, Caen, France
- 15:00 15:30 *Electronic properties of low-dimensional niobates and titanates*
Ch. Kuntscher, I. Physikalisches Institut, Universität Stuttgart, Germany
- 15:30-16:00 Tea/Coffee
- 16:00 16:30 *Linking surface with bulk in layered transition metal oxides*
A.P. Mackenzie, School of Physics & Astronomy, University of St. Andrews, St. Andrews, Scotland
- 16:30 17:00 *Surprising transition-metal silicides*
J. Mydosh, MPI für Chemische Physik fester Stoffe, Dresden, Germany & Kamerlingh Onnes Laboratorium, Leiden University, The Netherlands
- 17:00 17:30 *Bulk properties and neutron diffraction of the magnetic phase diagram of MnSi*
C. Pfleiderer, Physik-Department E21, Technische Universität München, Garching, Germany

Tuesday 27th September

- 9:00 9:30 *Stoichiometry variation in oxides and its impact on ionic and electronic transport properties*
J. Maier, MPI für Festkörperforschung Stuttgart, Germany
- 9:30 10:00 *Atomic-resolution measurements of oxygen concentration in twin domain boundaries in BaTiO₃*
M. Luysberg, K. Urban, IFF, Forschungszentrum Jülich, Germany
- 10:00 10:30 *Delafossite oxides*
J.-P. Doumerc, ICMCB-CNRS, Pessac, France
- 10:30 11:00 Tea/Coffee
- 11:00 11:30 *Crystal growth of low dimensional spin systems*
W. Assmus, Physikalisches Institut, Universität Frankfurt, Germany
- 11:30 12:00 *Long-lived metastable states in transition metal compounds*
A. Hauser, Département de Chimie Physique, Université de Genève, Switzerland
- 12:00 12:30 *Crystal growth and characterization of correlated electron oxide crystals*
A. Revcolevschi, Laboratoire de Physico-Chimie de l'Etat Solide, University of Paris XI, Orsay, France

- 12:30 Lunch
- 14:00 14:30 *Low-dimensional quantum spin systems*
H.-J. Mikeska, Institut für Theoretische Physik, Universität Hannover, Germany
- 14:30 15:00 *Ferroelectricity in frustrated magnets with spiral ordering*
M. Mostovoy, Institute for Theoretical Physics, University of Groningen,
The Netherlands & II. Physikalisches Institut, University of Cologne
- 15:00 15:30 Tea/Coffee
- 15:30-18:00 Poster Session in the Foyer of the Chemical Institutes
- 19:00 Conference Buffet on the house boat “Alte Liebe” at the river Rhine

Wednesday 28th September

- 9:00 9:30 *Magneto-ferroelectric properties of the hexagonal manganites*
Th.T.M. Palstra, Solid State Chemistry Laboratory, Materials Science
Center, University of Groningen, The Netherlands
- 9:30 10:00 *Magnetoelectric Effects and Phase Control in Multiferroic Manganites*
M. Fiebig, Max-Born Institut Berlin, Germany
- 10:00 10:30 *Polarization flop by a field induced magneto-structural transition in multiferroic
TbMnO₃*
N. Aliouane, D. Argyriou, Hahn Meitner Institut, Berlin, Germany
- 10:30 11:00 Tea/Coffee
- 11:00 11:30 *Magnetic structures of magnetoelectric RMn₂O₅ (R=Tb, Y, Ho, Dy)*
L.C. Chapon, ISIS, Rutherford Appleton Laboratory, Chilton, Didcot, UK
- 11:30 12:00 Colossal magneto-capacitive coupling in multi-ferroic spinel chalcogenides
J. Hemberger, Experimentalphysik 5, Universität Augsburg, Germany
- 12:00 12:30 *Linear and non linear optical spectroscopy of multiferroic and related materials*
R.V. Pisarev, Ioffe Physics-Technical Institute of the Russian Academy of
Science, St. Petersburg, Russia
- 12:30 Lunch
- 14:00 14:30 *Phenomenology of Multiferroic Effects*
P. Tolédano, Department of Physics, University of Picardie, Amiens, France
- 14:30 15:00 *Symmetry analysis of multiferroic domain structures*
V. Janovec, Institute of Physics, Academy of Sciences, Prague, Czech Republic
- 15:00 15:30 Tea/Coffee
- 15:30 16:00 *Symmetry analysis of spontaneously polarized and/or magnetized non-ferroelectric
domain walls*
J. Přívratská, Department of Maths & Didactics, Technical University of Liberec,
Czech Republic
- 16:00 16:30 *Tensor distinction of pairs of domain states*
V. Kopsky, Institute of Physics, Academy of Sciences, Prague, Czech Republic
- About 16:30 End