

List of publications

Urs Staub

13.02.2019 5 most important publications red titles, No's. 109, 146, 176, 198, 201

2019

240. **TERAHERTZ-DRIVEN PHONON UPCONVERSION IN SrTiO₃**

M. Kozina, M. Fechner, P. Marsik, T. van Driel, J. M. Glowina, C. Bernhard, M. Radovic, D. Zhu, S. Bonetti, *U. Staub* and M. C. Hoffmann, *Nature Phys.* **15**, xxx (2019).
DOI: 10.1038/s41567-018-0408-1

239. **THE ULTRAFAST EINSTEIN–DE HAAS EFFECT**

C. Dornes, Y. Acremann, M. Savoini, M. Kubli, M. J. Neugebauer, E. Abreu, L. Huber, G. Lantz, C. A. F. Vaz, H. Lemke, E. M. Bothschafter, M. Porer, V. Esposito, L. Rettig, M. Buzzi, A. Alberca, Y. W. Windsor, P. Beaud, *U. Staub*, Diling Zhu, Sanghoon Song, J. M. Glowina & S. L. Johnson, *Nature* **565**, 209 (2019).

238. **KINETICS OF A PHONON-MEDIATED LASER-DRIVEN STRUCTURAL PHASE TRANSITION IN Sn₂P₂Se₆**

Martin Kubli, Matteo Savoini, Elsa Abreu, Bulat Burganov, Gabriel Lantz, Lucas Huber, Martin J. Neugebauer, Larissa Boie, Vincent Esposito, Elisabeth M. Bothschafter, Sergii Parchenko, Sebastian Grübel, Michael Porer, Jochen Rittmann, Paul Beaud, *Urs Staub*, Makina Yabashi, Yoshikazu Tanaka, Tetsuo Katayama, Tadashi Togashi, Anton A. Kohutych, Yulian M. Vysochanskii and Steven L. Johnson, *Appl. Sci.*, **9**, 525 (2019).

2018

237. **DYNAMICS OF THE PHOTOINDUCED INSULATOR-TO-METAL TRANSITION IN A NICKELATE FILM**

Vincent Esposito, Laurenz Rettig, Elisabeth M. Bothschafter, Yunpei Deng, Christian Dornes, Lucas Huber, Tim Huber, Gerhard Ingold, Yuichi Inubushi, Tetsuo Katayama, Tomoya Kawaguchi, Henrik Lemke, Kanade Ogawa, Shigeki Owada, Milan Radovic, Mahesh Ramakrishnan, Zoran Ristic, Valerio Scagnoli, Yoshikazu Tanaka, Tadashi Togashi, Kensuke Tono, Ivan Usov, Yoav W. Windsor, Makina Yabashi, Steven L. Johnson, Paul Beaud, and *Urs Staub*, *Struct. Dyn. B* **5**, 064501 (2018).

236. **RELATIONSHIP BETWEEN CRYSTAL STRUCTURE AND MULTIFERROIC ORDERS IN ORTHORHOMBIC PEROVSKITE MANGANITES**

Saumya Mukherjee, Kenta Shimamoto, Yoav William Windsor, Mahesh Ramakrishnan, Sergii Parchenko, *Urs Staub*, Laurent Chapon, Bachir Ouladdiaf, Marisa Medarde, Tian Shang, Elisabeth A. Müller, Michel Kenzelmann, Thomas Lippert, Christof W. Schneider, and Christof Niedermayer, *Phys. Rev. B* **98**, 174416 (2018).

235. **RELATIONSHIP BETWEEN CRYSTAL STRUCTURE AND MULTIFERROIC ORDERS IN ORTHORHOMBIC PEROVSKITE MANGANITES**

N. S. Fedorova, Y. W. Windsor, C. Findler, M. Ramakrishnan, A. Bortis, L. Rettig, K. Shimamoto, E. M. Bothschafter, M. Porer, V. Esposito, Y. Hu, A. Alberca, T. Lippert, C. W. Schneider, *U. Staub*, and N. A. Spaldin, *Phys. Rev. Materials* **2** 104414 (2018).

234. **DIRECT OBSERVATION OF ELECTRON DENSITY RECONSTRUCTION AT THE METAL-INSULATOR TRANSITION IN NaOsO₃**
N. Gurung, N. Leo, S. P. Collins, G. Nisbet, G. Smolentsev, M. García-Fernández, K. Yamaura, L. J. Heyderman, *U. Staub*, Y. Joly, D. D. Khalyavin, S. W. Lovesey and V. Scagnoli, *Phys. Rev. B* **98**, 115116 (2018).
233. **ULTRAFAST RELAXATION DYNAMICS OF THE ANTIFERRODISTORTIVE PHASE IN Ca DOPED SrTiO₃**
M. Porer, M. Fechner, E. Bothschafter, L. Rettig, M. Savoini, V. Esposito, J. Rittmann, M. Kubli, M. J. Neugebauer, E. Abreu, T. Kubacka, T. Huber, G. Lantz, S. Parchenko, S. Grübel, A. Paarmann, Noack, P. Beaud, G. Ingold, U. Aschauer, S. L. Johnson, and *U. Staub*, *Phys. Rev. Lett.* **121**, 055701 (2018).
232. **SPATIAL DISPLACEMENT OF FORWARD-DIFFRACTED X-RAY BEAMS BY PERFECT CRYSTALS**
A. Rodriguez-Fernandez, V. Esposito, D. F. Sanchez, K. D. Finkelstein, P. Juranic, *U. Staub*, D. Grolimund, S. Reiche and B. Pedrini, *Acta Cryst.* **A74**, 75 (2018).
231. **PHOTOINDUCED TRANSITIONS IN MAGNETORESISTIVE MANGANITES: A COMPREHENSIVE VIEW**
V. Esposito, L. Rettig, E. Abreu, E. M. Bothschafter, G. Ingold, M. Kawasaki, M. Kubli, G. Lantz, M. Nakamura, J. Rittman, M. Savoini, Y. Tokura, *U. Staub*, S. L. Johnson, and P. Beaud, *Phys. Rev. B* **97**, 014312 (2018).

2017

230. **PERSPECTIVE: OPPORTUNITIES FOR ULTRAFAST SCIENCE AT SWISSFEL**
Rafael Abela, Paul Beaud, Jeroen A. van Bokhoven, Majed Chergui, Thomas Feurer, Johannes Haase, Gerhard, Ingold, Steven L. Johnson, Gregor Knopp, Henrik Lemke, Chris J. Milne, Bill Pedrini, Peter Radi, Gebhard, Schertler, Jörg Standfuss, *Urs Staub*, and Luc Patthey, *Struct. Dyn.* **4**, 061602 (2017).
229. **WATCHING ULTRAFAST RESPONSES OF STRUCTURE AND MAGNETISM IN CONDENSED MATTER WITH MOMENTUM-RESOLVED PROBES**
S. L. Johnson, M. Savoini, P. Beaud, G. Ingold, *U. Staub*, F. Carbone, L. Castiglioni, M. Hengsberger, and J. Osterwalder, *Struct. Dyn.* **4**, 061506 (2017).
228. **PERSPECTIVE: THz-DRIVEN NUCLEAR DYNAMICS FROM SOLIDS TO MOLECULES**
Peter Hamm, Markus Meuwly, Steve L. Johnson, Paul Beaud, and *Urs Staub*, *Struct. Dyn.* **4**, 061601 (2017).
227. **DYNAMIC PATHWAY OF THE PHOTOINDUCED PHASE TRANSITION OF TbMnO₃**
Elisabeth M. Bothschafter, Elsa Abreu, Laurenz Rettig, Teresa Kubacka, Sergii Parchenko, Michael Porer, Christian Dornes, Yoav William Windsor, Mahesh Ramakrishnan, Aurora Alberca, Sebastian Manz, Jonathan Saari, Seyed M. Koohpayeh, Manfred Fiebig, Thomas Forrest, Philipp Werner, Sarnjeet S. Dhesi, Steven L. Johnson, and *Urs Staub*, *Phys. Rev. B* **96**, 184414 (2017).

226. **INTERPLAY OF Fe AND Tm MOMENTS THROUGH THE SPIN-REORIENTATION TRANSITION IN TmFeO₃**
U. Staub, L. Rettig, E. M. Bothschafter, Y. W. Windsor, M. Ramakrishnan, S. R. V. Avula, J. Dreiser, C. Piamonteze, V. Scagnoli, S. Mukherjee, C. Niedermayer, M. Medarde, and E. Pomjakushina, *Phys. Rev. B* **96**, 174408 (2017).
225. **NONLINEAR ELECTRON-PHONON COUPLING IN DOPED MANGANITES**
V. Esposito, M. Fechner, R. Mankowsky, H. Lemke, M. Chollet, J.M. Glowia, M. Nakamura, M. Kawasaki, Y. Tokura, *U. Staub*, P. Beaud, and M. Först, *Phys. Rev. Lett.* **118**, 247601 (2017).
224. **MAGNETIC PROPERTIES OF STRAINED MULTIFERROIC CoCr₂O₄: A soft x-ray study**
Y. W. Windsor, C. Piamonteze, M. Ramakrishnan, A. Scaramucci, L. Rettig, J. A. Huever, E. M. Bothschafter, N. S. Bingham, A. Alberca, S. R. V. Avula, B. Noheda, and, *U. Staub*, *Phys. Rev. B* **95**, 224413 (2017).
223. **CRYSTAL SYMMETRY LOWERING IN CHIRAL MULTIFERROIC Ba₃TaFe₃Si₂O₁₄ OBSERVED BY X-RAY MAGNETIC SCATTERING**
M. Ramakrishnan, Y. Joly, Y. W. Windsor, L. Rettig, A. Alberca, E. M. Bothschafter, P. Lejay, R. Ballou, V. Simonet, V. Scagnoli, and *U. Staub*, *Phys. Rev B* **95**, 205145 (2017).
222. **ULTRAFAST X-RAY DIFFRACTION PROBE OF TERAHERTZ FIELD-DRIVEN SOFT MODE DYNAMICS IN SrTiO₃**
M. Kozina, T. van Driel, M. Chollet, T. Sato, J. M. Glowia, S. Wandel, M. Radovic, *U. Staub*, and M. C. Hoffmann, *Struct. Dyn.* **4**, 054301 (2017).
221. **LOCAL TERAHERTZ FIELD ENHANCEMENT FOR TIME-RESOLVED X-RAY DIFFRACTION**
M. Kozina, M. Pancaldi, C. Bernhard, T. van Driel, J. M. Glowia, P. Marsik, M. Radovic, C. A. F. Vaz, D. Zhu, S. Bonetti, *U. Staub*, and M. C. Hoffmann, *Appl. Phys. Lett.* **110**, 081106 (2017).

2016

220. **FERROMAGNETIC AND ANTIFERROMAGNETIC ORDERS OF A PHASE-SEPARATED MANGANITE PROBED THROUGH OUT THE B-T PHASE DIAGRAM**
Y. W. Windsor, Yoshikazu Tanaka, V. Scagnoli, M. Garganourakis, R. A. de Souza, M. Medarde, S.-W. Cheong, and, *U. Staub*, *Phys. Rev. B* **94**, 214412 (2016).
219. **MAGNETIC DIFFUSE SCATTERING IN ARTIFICIAL KAGOME SPIN ICE**
O. Sendetskyi, L. Anghinolfi, V. Scagnoli, G. Möller, N. Leo, A. Alberca, J. Kohlbrecher, J. Lüning, *U. Staub*, and L. J. Heyderman, *Phys. Rev. B* **93**, 224413 (2016).
218. **ITINERANT AND LOCALIZED MAGNETIZATION DYNAMICS IN ANTIFERROMAGNETIC Ho**
L. Rettig, C. Dornes, N. Thielemann-Kühn, N. Pontius, H. Zabel, D. L. Schlagel, T. A. Lograsso, M. Chollet, A. Robert, M. Sikorski, S. Song, J. M. Glowia, C. Schübler-Langeheine, S. L. Johnson, and *U. Staub*, *Phys. Rev. Lett.* **116**, 257202 (2016).

217. **QUASISTATIC MAGNETOELECTRIC MULTIPOLES AS ORDER PARAMETER FOR PSEUDOGAP PHASE IN CUPRATE SUPERCONDUCTORS**
M. Fechner, M. J. A. Fierz, F. Thöle, *U. Staub*, and N. A. Spaldin, *Phys. Rev. B* **93**, 174419 (2016).
216. **ULTRAFAST STRUCTURAL DYNAMICS OF THE ORTHORHOMBIC DISTORTION IN THE FE-PNICTIDE PARENT COMPOUND BaFe_2As_2**
L. Rettig, S. O. Mariager, A. Ferrer, S. Grübel, J. A. Johnson, J. Rittmann, T. Wolf, S. L. Johnson, G. Ingold, P. Beaud, and *U. Staub*, *Struc. Dyn.* **3**, 023611 (2016).
215. **MULTIFERROIC PROPERTIES OF UNIAXIALLY COMPRESSED ORTHORHOMBIC HoMnO_3 THIN FILMS**
K. Shimamoto, Y. W. Windsor, Y. Hu, M. Ramakrishnan, A. Alberca, E. M. Bothschafter, L. Rettig, Th. Lippert, *U. Staub*, and C. W. Schneider, *Appl. Phys. Lett.* **108**, 112904 (2016)
- 2015
214. **MAGNETIC ORDER DYNAMICS IN OPTICALLY EXCITED MULTIFERROIC TbMnO_3**
J. A. Johnson, T. Kubacka, M. C. Hoffmann, C. Vicario, S. de Jong, P. Beaud, S. Grübel, S.-W. Huang, L. Huber, Y. W. Windsor, E. M. Bothschafter, L. Rettig, M. Ramakrishnan, A. Alberca, L. Patthey, Y.-D. Chuang, J. J. Turner, G. L. Dakovski, W.-S. Lee, M. P. Minitti, W. Schlotter, R. G. Moore, C. P. Hauri, S. M. Koohpayeh, V. Scagnoli, G. Ingold, S. L. Johnson, and *U. Staub*, *Phys. Rev. B*, **92**, 184429 (2015).
213. **MAGNETOELECTRONICS—ELECTRIC FIELD CONTROL OF MAGNETISM IN THE SOLID STATE**
C. A. F. Vaz and *U. Staub*, *J. Phys. Condensed Matt.*, **27** 500301 (2015).
212. **ELEMENT-SPECIFIC MAGNETIZATION REDISTRIBUTION AT $\text{YBa}_2\text{Cu}_3\text{O}_7/\text{La}_{2/3}\text{Ca}_{1/3}\text{MnO}_3$ INTERFACES**
A. Alberca, M. A. Uribe-Laverde, Y. W. Windsor, M. Ramakrishnan, L. Rettig, I. Marozau, J.-M. Tonnerre, J. Stahn, *U. Staub*, and C. Bernhard, *Phys. Rev. B*, **92**, 174415 (2015).
211. **COHERENT ACOUSTIC PERTURBATION OF SECOND-HARMONIC-GENERATION IN NiO**
L. Huber, A. Ferrer, T. Kubacka, T. Huber, C. Dornes, T. Sato, K. Ogawa, K. Tono, T. Katayama, Y. Inubushi, M. Yabashi, Yoshikazu Tanaka, P. Beaud, M. Fiebig, V. Scagnoli, *U. Staub*, and S. L. Johnson, *Phys. Rev. B*, **92**, 094304 (2015).
210. **EMITTING ELECTRONS THROUGH PHONONS**
Valerio Sagnoli and *Urs Staub*, *News and Views, Nature Mater.* **14**, 859 (2015).
209. **INTERFACIAL PROPERTIES OF $\text{LaMnO}_3/\text{LaNiO}_3$ SUPERLATTICES GROWN ALONG (001) AND (111) ORIENTATIONS**
C. Piamonteze, M. Gibert, J. Heidler, J. Dreiser, S. Rusponi, H. Brune, J.-M. Triscone, F. Nolting, and *U. Staub*, *Phys. Rev. B* **92**, 014426 (2015).
208. **FERRO-TYPE ORDER OF MAGNETO-ELECTRIC QUADRUPOLES AS AN ORDER-PARAMETER FOR THE PSEUDO-GAP PHASE OF A CUPRATE SUPERCONDUCTOR**

- S. W. Lovesey, D. D. Khalyavin, and *U. Staub*, *J. Phys. Condens. Matter (fast track)* **27**, 292201 (2015).
207. **INTERPLAY BETWEEN MAGNETIC ORDER AT Mn AND Tm SITES ALONGSIDE THE STRUCTURAL DISTORTION IN MULTIFERROIC FILMS OF α -TmMnO₃**
Y. W. Windsor, M. Ramakrishnan, L. Rettig, A. Alberca, E. M. Bothschafter, and *U. Staub*, K. Shimamoto, Y. Hu, T. Lippert, and C. W. Schneider, *Phys. Rev. B* **91**, 235144 (2015).
206. **FERMI SURFACE OF THREE-DIMENSIONAL $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$ EXPLORED BY SOFT-X-RAY ARPES: RHOMBOHEDRAL LATTICE DISTORTION AND ITS EFFECT ON MAGNETORESISTANCE**
L. L. Lev, J. Krempaský, *U. Staub*, V. A. Rogalev, T. Schmitt, M. Shi, P. Blaha, A. S. Mishchenko, A. A. Veligzhanin, Y. V. Zubavichus, M. B. Tsetlin, H. Volfová, J. Braun, J. Minár, and V. N. Strocov, *Phys. Rev. Lett.* **114**, 237601 (2015).
205. **COMBINING THz LASER EXCITATION WITH RESONANT SOFT X-RAY SCATTERING AT THE LINAC COHERENT LIGHT SOURCE**
J. J. Turner, G. L. Dakovski, M. Hoffmann, H. Y. Hwang, A. Zarem, W. Schlotter, S. Moeller, M. Minitti, *U. Staub*, S. Johnson, A. Mitra, M. Swiggers, P. Noonan, I. Curiel and M. Holmes, *J. Synchrotron Rad.* **22**, 621 (2015).
204. **NONLINEAR DELAYED SYMMETRY BREAKING IN A SOLID EXCITED BY HARD X-RAY FEL PULSES**
J. A. Ferrer, J. A. Johnson, T. Huber, S. O. Mariager, M. Trant, S. Grübel, D. Zhu, M. Chollet, J. Robinson, H. T. Lemke, G. Ingold, C. Milne, *U. Staub*, P. Beaud, and S. L. Johnson, *Appl. Phys. Lett.* **106**, 154101 (2015).
203. **ULTRAFAST STRUCTURAL DYNAMICS OF THE Fe-PNICTIDE PARENT COMPOUND BaFe_2As_2**
L. Rettig, S. O. Mariager, A. Ferrer, S. Grübel, J. A. Johnson, J. Rittmann, T. Wolf, S. L. Johnson, G. Ingold, P. Beaud, and *U. Staub*, *Phys. Rev. Lett.* **114**, 067402 (2015).
- 2014
202. **MULTIFERROIC PROPERTIES OF α -LuMnO₃ CONTROLLED BY B-AXIS STRAIN**
Y. W. Windsor, S. W. Huang, Y. Hu, L. Rettig, A. Alberca, K. Shimamoto, V. Scagnoli T. Lippert, C. W. Schneider, and *U. Staub*, *Phys. Rev. Lett.* **113**, 167202 (2014).
201. **A TIME-DEPENDENT ORDER PARAMETER FOR ULTRAFAST PHOTO-INDUCED PHASE TRANSITIONS**
P. Beaud, A. Caviezel, S. O. Mariager, L. Rettig, G. Ingold, C. Dornes, S-W. Huang, J. A. Johnson, M. Radovic, T. Huber, T. Kubacka, A. Ferrer, H. T. Lemke, M. Chollet, D. Zhu, J. M. Glowia, M. Sikorski, A. Robert, H. Wadati, M. Nakamura, M. Kawasaki, Y. Tokura, S. L. Johnson, and *U. Staub*, *Nature Mater.* **13**, 923 (2014).
200. **ORBITAL CORRELATIONS AND DIMENSIONAL CROSSOVER IN EPITAXIAL $\text{Pr}_{0.5}\text{Ca}_{0.5}\text{MnO}_3/\text{La}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$ SUPERLATTICES**
H. Wadati, J. Okamoto, M. Garganourakis, V. Scagnoli, *U. Staub*, E. Sakai, H. Kumigashira, T. Sugiyama, E. Ikenaga, M. Nakamura, M. Kawasaki and Y. Tokura, N. J.

Phys. **16**, 073044 (2014).

199. **PERSISTENCE OF MAGNETIC ORDER IN A HIGHLY EXCITED Cu^{2+} STATE IN CuO**
U. Staub, R. A. de Souza, P. Beaud, E. Möhr-Vorobeve, G. Ingold, A. Caviezel, V. Scagnoli, B. Delley, M. P. Minitti, W. F. Schlotter, J. J. Turner, O. Krupin, W.-S. Lee, Y.-D. Chuang, L. Patthey, R. G. Moore, D. Lu, M. Yi, P. S. Kirchmann, M. Trigo, P. Denes, D. Doering, Z. Hussain, Z.-X. Shen, D. Prabhakaran, A. T. Boothroyd, and S. L. Johnson, *Phys. Rev. B* **89**, 220401(R) (2014).

198. **LARGE AMPLITUDE SPIN DYNAMICS DRIVEN BY A THz PULSE IN RESONANCE WITH AN ELECTROMAGNON**

T. Kubacka, J.A. Johnson, M.C. Hoffmann, C. Vicario, S. de Jong, P. Beaud, S. Grübel, S.-W. Huang, L. Huber, L. Patthey, Y.-D. Chuang, J.J. Turner, G.L. Dakovski, W.-S. Lee, M.P. Minitti, W. Schlotter, R.G. Moore, C.P. Hauri, S.M. Koohpayeh, V. Scagnoli, G. Ingold, S.L. Johnson and *U. Staub*, *Science* **343**, 1333 (2014).

2013

197. **CHIRAL PROPERTIES OF HEMATITE $\alpha\text{-Fe}_2\text{O}_3$ INFERRED FROM RESONANT BRAGG DIFFRACTION USING CIRCULARLY POLARIZED X - RAYS**

A. Rodríguez-Fernández, J. A. Blanco, S. W. Lovesey, V. Scagnoli, *U. Staub*, H. C. Walker, D. K. Shukla, and J. Stempfer, *Phys. Rev B* **88**, 094437 (2013).

196. **DZYALOSHINSKY-MORIYA DRIVEN HELICAL-BUTTERFLY STRUCTURE IN $\text{Ba}_3\text{NbFe}_3\text{Si}_2\text{O}_{14}$**

V. Scagnoli, S. W. Huang, M. Garganourakis, R. A. de Souza, and *U. Staub*, V. Simonet, P. Lejay, and R. Ballou, *Phys. Rev B* **88**, 104417 (2013).

195. **ARTIFICIAL MULTIFERROIC HETEROSTRUCTURES**

Carlos Antonio Fernandes Vaz and *Urs Staub*, *Journal of Materials Chemistry C*, (highlight) *J. Mater. Chem. C* **1**, 6731 (2013).

194. **MELTING OF CHIRAL ORDER IN TERBIUM MANGANATE (TbMnO_3) OBSERVED WITH RESONANT X-RAY BRAGG DIFFRACTION**

S. W. Lovesey, V. Scagnoli, M. Garganourakis, S. M. Koohpayed, C. Detlefs and *U. Staub*, *J. Phys. Cond. Matter*, (fast track) **25**, 362202 (2013).

193. **IDENTIFICATION OF COHERENT LATTICE MODULATIONS COUPLED TO CHARGE AND ORBITAL ORDER IN A MANGANITE**

A. Caviezel, S. O. Mariager, S. L. Johnson, E. Möhr-Vorobeve, S. W. Huang, G. Ingold, *U. Staub*, C. J. Milne, S.-W. Cheong, and P. Beaud, *Phys. Rev. B* **87**, 205104 (2013).

192. **OPTICAL AND X-RAY TIME RESOLVED STUDY OF THE STRUCTURAL TRANSITION IN MIXED VALENCE MANGANITES**

A. Caviezel, *U. Staub*, S. L. Johnson, S. O. Mariager, G. Ingold, E. Möhr-Vorobeve, M. Garganourakis, S. W. Huang, C. J. Milne, Q. X. Jia, S.-W. Cheong, and P. Beaud, *EPJ Web of Conf.* **41**, 03002 (2013).

2012

191. **FEMTOSECOND DYNAMICS OF THE STRUCTURAL TRANSITION IN MIXED VALENCE MANGANITES**
A. Caviezel, *U. Staub*, S. L. Johnson, S. O. Mariager, E. Möhr-Vorobeva, G. Ingold, C. J. Milne, M. Garganourakis, V. Scagnoli, S. W. Huang, Q. X. Jia, S.-W. Cheong, and P. Beaud, *Phys. Rev. B* **86**, 174105 (2012).
190. **IMPRINTING MAGNETIC INFORMATION IN MANGANITES WITH X-RAYS**
M. Garganourakis, V. Scagnoli, S. W. Huang, H. Wadati, M. Nakamura, V. A. Guzenko, M. Kawasaki, Y. Tokura and *U. Staub*, *Phys. Rev. Lett.*, **109**, 157203 (2012).
189. **MAGNETIC AND ELECTRONIC ORDERINGS IN ORTHORHOMBIC $R\text{MnO}_3$ ($R = \text{Tm}, \text{Lu}$) STUDIED BY RESONANT SOFT X-RAY POWDER DIFFRACTION**
M. Garganourakis, Y. Bodenthin, R. A. de Souza, V. Scagnoli, A. Dönni, M. Tachibana, H. Kitazawa, E. Takayama-Muromachi, and *U. Staub*, *Phys. Rev. B* **86**, 054425 (2012).
188. **EVOLUTION OF CHARGE ORDER THROUGH THE MAGNETIC PHASE TRANSITION OF LuFe_2O_4**
M. Bartowiak, A. M. Mulders, V. Scagnoli, *U. Staub*, E. Pomjakushina, and K. Conder, *Phys. Rev. B* **86**, 035121 (2012).
187. **INHOMOGENEOUS TEMPERATURE DEPENDENCE OF THE MAGNETIZATION IN FCC-Fe ON Cu(001)**
C. E. ViolBarbosa, H. L. Meyerheim, E. Jal, J.-M. Tonnerre, M. Przybylski, L. M. Sandratskii, F. Yildiz, *U. Staub*, and J. Kirschner, *Phys. Rev. B* **85**, 184414 (2012).
186. **ACENTRIC MAGNETIC AND OPTICAL PROPERTIES OF CHALCOPYRITE (CuFeS_2)**
S. W. Lovesey, K. S. Knight, C. Detlefs, S. W. Huang, V. Scagnoli and *U. Staub*, *J. Phys.: Cond. Matter* **24**, 216001 (2012).
185. **FERROMAGNETIC-TYPE ORDER OF ATOMIC MULTIPOLES IN THE POLAR FERRIMAGNETIC GaFeO_3**
U. Staub, C. Piamonteze, M. Garganourakis, S. P. Collins, S. M. Koohpayeh, D. Fort, and S. W. Lovesey, *Phys. Rev. B* **85**, 144421 (2012).
184. **COMPETING FERRI- AND ANTIFERROMAGNETIC PHASES IN GEOMETRICALLY FRUSTRATED LuFe_2O_4**
J. de Groot, K. Marty, M.D. Lumsden, A.D. Christianson, S.E. Nagler, S. Adiga, W.J.H. Borghols, K. Schmalzl, Z. Yamani, S.R. Bland, R. de Souza, *U. Staub*, W. Schweika, Y. Su, M. Angst, *Phys. Rev. Lett.* **108**, 037206 (2012).
183. **ORIGIN OF THE LARGE POLARIZATION IN MULTIFERROIC YMnO_3 THIN FILMS REVEALED BY SOFT AND HARD X-RAY DIFFRACTION**
H. Wadati, J. Okamoto, M. Garganourakis, V. Scagnoli, *U. Staub*, Y. Yamasaki, H. Nakao, Y. Murakami, M. Mochizuki, M. Nakamura, M. Kawasaki, Y. Tokura, *Phys. Rev. Lett.* **108**, 047203 (2012).
182. **FEMTOSECOND DYNAMICS OF THE COLLINEAR-TO-SPIRAL ANTIFERROMAGNETIC PHASE TRANSITION IN CuO**
S. L. Johnson, R. A. de Souza, *U. Staub*, P. Beaud, E. Möhr-Vorobeva, G. Ingold, A.

Caviezel, V. Scagnoli, W. F. Schlotter, J. J. Turner, O. Krupin, W.-S. Lee, Y.-D. Chuang, L. Patthey, R. G. Moore, D. Lu, M. Yi, P. S. Kirchmann, M. Trigo, P. Denes, D. Doering, Z. Hussain, Z.-X. Shen, D. Prabhakaran, A. T. Boothroyd, Phys. Rev. Lett. **108**, 037203 (2012).

2011

181. MAGNETIC STRUCTURE AND ELECTRIC FIELD EFFECTS IN MULTIFERROIC YMn_2O_5

R. A. de Souza, U. Staub, V. Scagnoli, M. Garganourakis, Y. Bodenthin, S.-W. Hunang, M. García-Fernández, S. Ji, S.-H. Lee, S. Park, S.-W. Chuang, Phys. Rev. B **84**, 104416 (2011).

180. NONTHERMAL MELTING OF A CHARGE DENSITY WAVE IN TiSe_2

E. Möhr-Vorobeva, S. L. Johnson, P. Beaud, U. Staub, R. De Souza, C. Milne, G. Ingold, J. Demsar, H. Schäfer and A. Titov, Phys. Rev. Lett, **107**, 036403 (2011).

179. ULTRAFAST STRUCTURAL DYNAMICS IN CONDENSED MATTER

P. Beaud, S. L. Johnson, E. Vorobeva, C. J. Milne, A. Caviezel, S. O. Mariager, R. A. De Souza, U. Staub and G. Ingold, Chimia **65**, 308 (2011).

178. TRIKONTADIPOLE AND HIGH-ORDER DYSPROSIUM MULTIPOLES IN THE ANTIFERROMAGNETIC PHASE OF DyB_2C_2

A. J. Princep, A. M. Mulders, U. Staub, V. Scagnoli, T. Nakamura, A. Kikkawa, S. W. Lovesey and E. Balcar, J. Phys. Cond. Matter **23**, 266002 (2011).

177. THE ORIGIN OF THE LOW-TEMPERATURE (T_x) PHASE TRANSITION IN BaVS_3

R. A. de Souza, U. Staub, V. Scagnoli, M. Garganourakis, Y. Bodenthin, and H. Berger, Phys. Rev. B **84**, 014409 (2011).

176. OBSERVATION OF ORBITAL CURRENTS IN CuO

V. Scagnoli, U. Staub, Y. Bodenthin, R. A. de Souza, M. Garcia-Fernandez, M. Garganourakis, A. T. Boothroyd, D. Prabhakaran, and S. W. Lovesey, Science **332**, 696 (2011).

175. MAGNETIC AND ELECTRONIC PROPERTIES OF RNiO_3 (R=Pr, Nd, Eu, Ho, and Y) PEROVSKITES STUDIED BY RESONANT SOFT X-RAY MAGNETIC POWDER DIFFRACTION.

Y. Bodenthin, U. Staub, C. Piamonteze, M. Garcia-Fernandez, M. J. Martinez-Lope, and J. A. Alonso, J. Phys.: Condens. Matter **23**, 036002 (2011).

2010

174. SOFT X-RAY RESONANT MAGNETIC REFLECTIVITY STUDIES FOR IN- AND OUT-OF-PLANE MAGNETIZATION PROFILE IN ULTRA THIN FILMS

J-M Tonnerre, N Jaouen, E Bontempi, D Carbone, D Babonneau, M De Santis, H C N Tolentino, S Grenier, S Garaudee and U Staub, J. Phys.: Conf. Series **211**, 012015 (2010).

173. DOPING AND TEMPERATURE DEPENDENCE OF Mn 3d STATES IN A-SITE

ORDERED MANGANITES

M. García-Fernández, *U. Staub*, Y. Bodenthin, V. Pomjakushin, A. Mirone, J. Fernández-Rodríguez, V. Scagnoli, A. M. Mulders S. M. Lawrence, and E. Pomjakushina, *Phys. Rev. B* **82**, 235108 (2010).

172. **MAGNETOELECTRIC EFFECTS STUDIED BY RESONANT X-RAY DIFFRACTION IN FERRIMAGNETIC GaFeO₃**

U. Staub, Y. Bodenthin, C. Piamonteze, S. P. Collins, S. Koohpayeh, D. Fort, and S. W. Lovesey, *Phys. Rev. B* **82**, 104411 (2010).

171. **MAGNETIC ORDER OF MULTIFERROIC ErMn₂O₅ STUDIED BY RESONANT SOFT X-RAY BRAGG DIFFRACTION**

U. Staub, Y. Bodenthin, M. García-Fernández, R. A. de Souza, M. Garganourakis, E.I. Golovenchits, V.A. Sanina, and S. G. Lushnikov, *Phys. Rev. B* **81**, 144401 (2010).

170. **ADVANCED RESONANT SOFT X-RAY DIFFRACTION TO STUDY ORDERING PHENOMENA IN MAGNETIC MATERIALS**

Urs Staub, *J. Phys.: Conf. Series* **211**, 012003 (2010).

169. **CIRCULARLY POLARIZED SOFT X-RAY DIFFRACTION STUDY OF HELICAL MAGNETISM IN HEXAFERRITE**

A.M. Mulders, S.M. Lawrence, A.J. Princep, *U. Staub*, Y. Bodenthin, M. Garcia-Fernandez, M. Garganourakis, J. Hester, R. Macquart and C.D. Ling, *Phys. Rev. B* **81** 092405 (2010).

168. **THE EFFECT OF CORE-VALENCE INTRA-ATOMIC QUADRUPOLEAR INTERACTION IN RESONANT X-RAY SCATTERING AT THE Dy M_{4,5} EDGES IN DyB₂C₂**

Javier Fernández-Rodríguez, Alessandro Mirone and Urs Staub, *J. Phys.: Condens. Matter* **22**, 016001 (2010).

2009

167. **DETECTING OXYGEN VACANCIES IN SrTiO₃ BY 3d TRANSITION METAL TRACER-IONS**

B. P. Andreasson, M. Janousch, *U. Staub*, T. Todorova, B. Delley, G. I. Meijer, and E. Pomjakushina, *Phys. Rev. B* **80**, 212103 (2009).

166. **REPLY TO COMMENT 'CALCULATED CHIRAL AND MAGNETO-ELECTRIC DICHROIC SIGNALS FOR COPPER METABORATE (CuB₂O₄) IN AN APPLIED MAGNETIC FIELD'**

Stephen W. Lovesey and Urs Staub, *J. Phys.: Condens. Matter* **21**, 498002 (2009).

165. **ORIGIN OF OXYGEN VACANCIES IN RESISTIVE SWITCHING MEMORY DEVICES**

B. P. Andreasson, M. Janousch, *U. Staub*, G. I. Meijer, A. Ramar, J. Krbanjevic, and R. Schaeublin, *J. Phys.: Conf. Series* **190**, 012074 (2009).

164. **PARITY-AND TIME-ODD ATOMIC MULTIPOLES IN MAGNETOELECTRIC GaFeO₃ AS SEEN VIA SOFT X-RAY BRAGG DIFFRACTION**

U. Staub, Y. Bodenthin, C. Piamonteze, M. García-Fernández, V. Scagnoli, M. Garganourakis, S. Koohpayeh, D. Fort, and S. W. Lovesey, *Phys. Rev. B* **80**, 140410(R) (2009).

163. **ULTRAFAST STRUCTURAL PHASE TRANSITION DRIVEN BY PHOTOINDUCED MELTING OF CHARGE AND ORBITAL ORDER**
P. Beaud, S. L. Johnson, E. Vorobeva, *U. Staub*, R. A. De Souza, C. J. Milne, Q. X. Jia, and G. Ingold, *Phys. Rev. Lett.* **103**, 155702 (2009).
162. **ORBITAL ORDER AT Mn AND O SITES AND ABSENCE OF ZENER POLARON FORMATION IN MANGANITES**
M. García-Fernández, *U. Staub*, Y. Bodenthin, V. Scagnoli, V. Pomjakushin, S. W. Lovesey, A. Mirone, J. Herrero-Martín, C. Piamonteze, and E. Pomjakushina, *Phys. Rev. Lett.* **103**, 097205 (2009).
161. **DIRECT OBSERVATION OF CHARGE ORDER AND AN ORBITAL GLASS STATE IN MULTIFERROIC LuFe₂O₄**
A. M. Mulders, S. M. Shane, *U. Staub*, M. García-Fernández, V. Scagnoli, C. Mazzoli, E. Pomjakushina, and K. Conder, *Phys. Rev. Lett.* **103**, 077602 (2009).
160. **ORBITAL AND MAGNETIC ORDERING IN Pr_{1-x}Ca_xMnO₃ AND Nd_{1-x}Sr_xMnO₃ MANGANITES NEAR HALF DOPING STUDIED BY RESONANT X-RAY POWDER DIFFRACTION**
U. Staub, M. García-Fernández, Y. Bodenthin, V. Scagnoli, R. A. De Souza, M. Garganourakis, E. Pomjakushina, and K. Conder, *Phys. Rev. B* **79**, 224419 (2009).
159. **CALCULATED CHIRAL AND MAGNETO-ELECTRIC DICHROIC SIGNALS FOR COPPER METABORATE (CuB₂O₄) IN AN APPLIED MAGNETIC FIELD**
Stephen W. Lovesey and Urs Staub, *J. Phys.: Condens. Matter* **21**, 142201 (2009).
158. **SPATIAL DISTRIBUTION OF OXYGEN VACANCIES IN Cr-DOPED SrTiO₃ DURING AN ELECTRIC-FIELD-DRIVEN INSULATOR-TO-METAL TRANSITION**
B. P. Andreasson, M. Janousch, *U. Staub* and G. I. Meijer, *Appl. Phys. Lett.* **94**, 013513 (2009).

2008

157. **COMBINING *M*- AND *L*- EDGE RESONANT INELASTIC X-RAY SCATTERING FOR STUDIES OF 3d TRANSITION METAL COMPOUNDS**
S. G. Chiuzbaian, T. Schmitt, M. Matsubara, A. Kotani, G. Ghiringhelli, C. Dallera, A. Tagliaferri, L. Braicovich, V. Scagnoli, N. B. Brookes, *U. Staub*, and L. Patthey, *Phys. Rev. B* **78**, 245102 (2008).
156. **POLARIZATION ANALYSIS IN SOFT X-RAY DIFFRACTION TO STUDY MAGNETIC AND ORBITAL ORDERING**
U. Staub, V. Scagnoli, Y. Bodenthin, M. García-Fernández, R. Wetter, A. M. Mulders, H. Grimmer and M. Horisberger, *J. Syn. Rad.* **15**, 469 (2008).
155. **MAGNETIC AND ELECTRONIC Co STATES IN LAYERED COBALTATE GdBaCo₂O_{5.5x}**
M. García-Fernández, V. Scagnoli, *U. Staub*, A. M. Mulders, M. Janousch, Y. Bodenthin, D. Meister, B. D. Patterson, A. Mirone, Y. Tanaka, T. Nakamura, S. Grenier, Y. Huang and K. Conder, *Phys. Rev. B* **78**, 054424 (2008).

154. **TRANSITION-METAL OXIDE BASED RESISTANCE-CHANGE MEMORIES**
S. F. Karg, G. I. Meijer, J. G. Bednorz, C. T. Rettner, A. G. Schrott, E. A. Joseph, C. H. Lam, M. Janousch, *U. Staub*, F. La Mattina, S. F. Alvarado, W. Widmer, R. Stutz, U. Drechsler, and D. Caimi, *IBM J. Res. & Dev.* **52**, 481 (2008).
153. **TOWARDS PUMP-PORBE RESONANT X-RAY DIFFRACTION AT FEMTO SECOND UNDULATOR SOURCES**
G. Ingold, R. Abela, P. Beaud, S. L. Johnson, and *U. Staub*, *Z. Krist.* **223**, 292 (2008).
152. **DEPTH MAGNETIZATION PROFILE OF A PERPENDICULAR EXCHANGE COUPLED SYSTEM**
J. M. Tonnerre, M. De Santis, S. Grenier, H. C. N. Tolentino, V. Langlais, E. Bontempi, M. García-Fernández, and *U. Staub*, *Phys. Rev. Lett.* **100**, 157202 (2008).
151. **INDUCED NON-COLLINEAR MAGNETIC ORDER OF Nd³⁺ IN NdNiO₃ OBSERVED BY RESONANT SOFT X-RAY DIFFRACTION**
V. Scagnoli, *U. Staub*, Y. Bodenthin, M. García-Fernández, G. I. Meijer, and G. Hammerl, *Phys. Rev. B* **77**, 115138 (2008).
150. **A RESONANT SOFT X-RAY POWDER DIFFRACTION STUDY TO DETERMINE THE ORBITAL ORDERING IN A-SITE ORDERED SmBaMn₂O₆**
M. García-Fernández, *U. Staub*, Y. Bodenthin, S. M. Laurence, A. M. Mulders, C. E. Buckley, S. Weyneth, E. Pomjakushina, and K. Conder, *Phys. Rev. B* **77**, 060402(R) (2008).
149. **MANIPULATING THE MAGNETIC STRUCTURE WITH ELECTRIC FIELDS IN MULTIFERROIC ErMn₂O₅**
Y. Bodenthin, *U. Staub*, M. García-Fernández, M. Janoschek, J. Schlappa, E. I. Golovenchits, V. A. Sanina, and S. G. Lushnikov, *Phys. Rev. Lett.* **100**, 027201 (2008).
- 2007
148. **DIRECT PROBE OF OXYGEN SUPERSTRUCTURES IN MANGANITES**
S. Grenier, K. J. Thomas, J. P. Hill, *U. Staub*, Y. Bodenthin, M. García-Fernández, V. Scagnoli, V. Kiryukhin, S-W. Cheong, B. G. Kim, and J. M. Tonnerre, *Phys. Rev. Lett.* **99**, 206403 (2007).
147. **RESISTIVE SWITCHING IN Cr DOPED SrTiO₃: AN X-RAY ABSORPTION STUDY**
B. P. Andreasson, M. Janousch, *U. Staub*, G. I. Meijer, and B. Delley, *Mater. Sci. Eng. B.* **144**, 60 (2007).
146. **ROLE OF OXYGEN VACANCIES IN Cr-DOPED SrTiO₃ FOR RESISTANCE-CHANGE MEMORY**
M. Janousch*, G. I. Meijer*, *U. Staub**, B. Delley, S. F. Karg, B. P. Andreasson, *Adv. Mat.* **19**, 2232 (2007). * authors with equal contribution.
145. **CORRELATION BETWEEN CRYSTAL STRUCTURE AND MAGNETISM IN A FRUSTRATED ANTIFERROMAGNET CuFeO₂ UNDER HIGH MAGNETIC FIELDS**

N. Terada, Y. Narumi, Y. Sawai, K. Katsumata, *U. Staub*, Y. Tanaka, A. Kikkawa, T. Fukui, K. Kindo, T. Yamamoto, R. Kanmuri, M. Hagiwara, H. Toyokawa, T. Ishikawa, and H. Kitamura, *Phys. Rev. B* **75**, 224411 (2007).

144. **MANIPULATING 4f QUADRUPOLAR PAIR-INTERACTIONS IN TbB₂C₂ USING A MAGNETIC FIELD**

A. M. Mulders, *U. Staub*, V. Scagnoli, Y. Tanaka, A. Kikkawa, K. Katsumata and J. M. Tonnerre, *Phys. Rev. B* **75**, 184438 (2007).

143. **LATTICE DEFORMATIONS INDUCED BY AN APPLIED MAGNETIC FIELD IN THE FRUSTRATED ANTIFERROMAGNET HgCr₂O₄**

Y. Tanaka, Y. Narumi, N. Terada, K. Katsumata, H. Ueda, *U. Staub*, K. Kindo, T. Fukui, T. Yamamoto, R. Kammuri, M. Hagiwara, A. Kikkawa, Y. Ueda, H. Toyokawa, T. Ishikawa and H. Kitamura, *J. Phys. Soc. Jpn* **76**, 43708 (2007).

142. **SOFT X-RAY RESONANT MAGNETIC POWDER DIFFRACTION ON PrNiO₃**

U. Staub, M. García-Fernández, A. M. Mulders, Y. Bodenthin, M. J. Martínez-Lope, J. A. Alonso, *J. Phys.: Cond. Matter, fast track* **19**, 092201 (2007).

141. **OBSERVATION OF ORBITAL ORDERING AND JAHN-TELLER DISTORTIONS SUPPORTING THE WIGNER-CRYSTAL MODEL IN HIGHLY DOPED Bi_{1-x}Ca_xMnO₃**

S. Grenier, V. Kiryukhin, S-W. Cheong, J. P. Hill, K. J. Thomas, J. M. Tonnerre, Y. Joly, *U. Staub*, and V. Scagnoli, *Phys. Rev. B* **75**, 085101 (2007).

2006

140. **CHARGE/ORBITAL ORDERING VS. JAHN-TELLER DISTORTION IN La_{0.5}Sr_{1.5}MnO₄**

U. Staub, V. Scagnoli, A. M. Mulders, M. Janousch, Z. Honda, and J. M. Tonnerre, *Europhys. Lett.* **76**, 926 (2006).

139. **HIGHER-ORDER Dy MULTIPOLE MOTIFS OBSERVED IN DyB₂C₂ WITH RESONANT SOFT X-RAY BRAGG DIFFRACTION**

A. Mulders, *U. Staub*, V. Scagnoli, S. W. Lovesey, E. Blacar, T. Nakamura, A. Kikkawa, G. van der Laan, and J.M. Tonnerre, *J. Phys.: Cond. Matter* **18**, 11195 (2006).

138. **EFFECT OF MAGNETIC FIELD ON THE MAGNETIC STATE OF COPPER METABORATE**

G. Petrakovskii, M. Popov, V. Zinenkov, B. Roessli, J. Schefer, M. Boehm, and *U. Staub*, in *Smart Materials for Ranging Systems*, p. 49-65, Ed. J. Franse et al. Springer Netherlands (2006).

137. **FIELD-INDUCED LATTICE STAIRCASE IN A FRUSTRATED ANTIFERROMAGNET CuFe₂O₄**

N. Terada, Y. Narumi, K. Katsumata, T. Yamamoto, *U. Staub*, K. Kindo, M. Hagiwara, Y. Tanaka, A. Kikkawa, H. Toyakawa, T. Fukui, R. Kanamuri, T. Ishikawa, and H. Kitamura, *Phys. Rev. B* **74**, 180404(R) (2006).

136. **INFLUENCE OF STRESS AND MAGNETIC FIELD ON THE ORBITAL ORIENTATIONS IN CeB₆**

U. Staub, Y. Tanaka, K. Katsumata, A. Kikkawa, Y. Kuramoto, and Y. Onuki, *J. Phys.: Cond. Matter*, **18**, 11007 (2006).

135. **X-RAY DIFFRACTION STUDIES IN PULSED HIGH MAGNETIC FIELDS**

Y. Narumi, K. Kindo, K. Katsumata, M. Kawauchi, Ch. Broennimann, *U. Staub*, H. Toyokawa, Y. Tanaka, K. Kikkawa, T. Yamamoto, M. Hagiwara, T. Ishikawa, and H. Kitamura, *J. Phys.: Conf. Proc.* **51**, 494 (2006).

134. **ORBITAL ORDER IN DyB₂C₂ STUDIED WITH RESONANT SOFT X-RAY SCATTERING**

A. Mulders, *U. Staub*, V. Scagnoli, T. Nakamura, A. Kikkawa, J. M. Tonnerre, *Physica B* **378-380**, 367 (2006).

133. **ROLE OF MAGNETIC AND ORBITAL ORDERING AT THE METAL-INSULATOR TRANSITION IN NdNiO₃**

V. Scagnoli, *U. Staub*, A. M. Mulders, M. Janousch, G. I. Meijer, G. Hammerl, J. M. Tonnerre, and N. Stojic, *Phys. Rev. B* **73**, 100409(R) (2006).

132. **X-RAY DIFFRACTOMETER COMBINING SYNCHROTRON RADIATION AND PULSED MAGNETIC FIELDS UP TO 40 T**

Y. Narumi, K. Kindo, K. Katsumata, M. Kawauchi, Ch. Broennimann, *U. Staub*, H. Toyokawa, Y. Tanaka, A. Kikkawa, T. Yamamoto, M. Hagiwara, T. Ishikawa, and H. Kitamura, *J. Synch. Rad.* **13**, 271 (2006).

131. **LATTICE DISTORTION IN ANTIFERROMAGNETIC CoO UNDER HIGH MAGNETIC FIELDS**

Y. Narumi, K. Katsumata, *U. Staub*, K. Kindo, M. Kawauchi, Ch. Broennimann, H. Toyokawa, Y. Tanaka, A. Kikkawa, T. Yamamoto, M. Hagiwara, T. Ishikawa, and H. Kitamura, *J. Phys. Soc. Jpn* **75**, 075991 (2006).

130. **MAGNETIC AND ORBITAL ORDERING IN NdNiO₃**

V. Scagnoli, *U. Staub*, A. M. Mulders, G. I. Meijer, G. Hammerl, and J. M. Tonnerre, *Physica B* **378-380**, 541 (2006).

2005

129. **ORBITAL DYNAMICS OF THE 4f SHELL IN DyB₂C₂**

U. Staub, A. M. Mulders, O. Zaharko, S. Janssen, T. Nakamura, and S. W. Lovesey, *Phys. Rev. Lett.* **94** 36408 (2005).

128. **TEMPERATURE-DEPENDENCE OF THE CRYSTAL STRUCTURE AND CHARGE-ORDERING IN Yb₄As₃**

U. Staub, M. Shi, C. Schulze-Briesse, B. D. Patterson, F. Fauth, E. Dooryhee, L. Soderholm, J. O. Cross, D. Mannix and A. Ochiai, *Phys. Rev. B*, **71** 75115 (2005).

127. **MAGNETIC FIELD-INDUCED ORBITAL ORDER IN TbB₂C₂ OBSERVED BY INELASTIC NEUTRON SCATTERING**

M. Mulders, *U. Staub*, O. Zaharko and S. Janssen, *Physica B*, **369-361**, 1231 (2005).

126. **SPIN DENSITY WAVE AND CHARGE DENSITY WAVE IN THE KONDO-LATTICE COMPOUND $\text{Ce}(\text{Ru}_{1-x}\text{Rh}_x)_2\text{Si}_2$**
Y. Tabata, T. Taniguchi, S. Kawarazaki, Y. Narumi, S. Kimura, Y. Tanaka, K. Katsumata, T. Ishikawa, *U. Staub*, M. Kohgi, and K. Iwasa, *Physica B*, **359-361**, 260 (2005).
125. **GIANT MAGNETO-VOLUME EFFECT IN SOLID OXYGEN**
K. Katsumata, S. Kimura, U. Staub, Y. Narumi, Y. Tanaka, S. Shimomura, T. Nakamura, S. W. Lovesey, T. Ishikawa, and H. Kitamura, *J. Phys.: Condens. Matter*, **17**, L235 (2005).
124. **ORBITAL AND MAGNETIC ORDERING IN $\text{La}_{0.5}\text{Sr}_{1.5}\text{MnO}_4$ STUDIED BY SOFT X-RAY RESONANT SCATTERING**
U. Staub, V. Scagnoli, A. M. Mulders, K. Katsumata, Z. Honda, H. Grimmer, M. Horisberger, and J. M. Tonnerre, *Phys. Rev. B*, **71**, 214421 (2005).
123. **CHARGE DISPROPORTIONATION AND ORBITAL ORDERING IN NdNiO_3 STUDIED BY RESONANT X-RAY SCATTERING**
V. Scagnoli, *U. Staub*, M. Janousch, A. M. Mulders, M. Shi, S. Rosenkranz, S. Wilkins, L. Paolasini, and S. W. Lovesey, *Phys. Rev. B* **72**, 155111 (2005).
122. **VALENCE STATES OF Cr AND THE INSULATOR-TO-METAL TRANSITION IN Cr-DOPED SrTiO_3**
G. I. Mejer, *U. Staub*, M. Janousch, S. L. Johnson, B. Delley, and T. Neisius, *Phys. Rev. B* **72**, 155102 (2005).

2004

121. **CHARGE DISPROPORTIONATION OBSERVED BY RESONANT X-RAY SCATTERING AT THE METAL-INSULATOR TRANSITION IN NdNiO_3**
U. Staub, V. Scagnoli, M. Janousch, G. I. Meijer, L. Paolasini, F. D'Acapito, J. G. Bednorz, R. Allenspach, and S. W. Lovesey, *Physica B* **345**, 23 (2004).
120. **NON-RESONANT X-RAY DIFFRACTION MEASUREMENTS ON CeB_6**
Y. Tanaka, *U. Staub*, Y. Narumi, K. Katsumata, V. Scagnoli, S. Shimomura, Y. Tabata, and Y. Onuki, *Physica B* **345**, 78 (2004).
119. **CORRELATION BETWEEN MAGNETIC AND ELECTRONIC PROPERTIES OF THE PEROVSKITE $\text{HoBaCo}_2\text{O}_5$**
U. Staub, F. Fauth, E. Suard, A. Amato, V. Caignart, and D. Herlach, *J. Phys.: Condensed Matt.* **16**, 3361 (2004).
118. **INCOMMENSURATE MAGNETIC STRUCTURE IN COPPER METABORATE**
G. Petrakovskii, M. Popov, S. Martynov, B. Roessli, J. Schefer, B. Ouladdiaf, M. Boehm, *U. Staub*, and A. Amato, *Physica B* **272-276**, e199 (2004).
117. **QUADRUPOLAR, STRUCTURAL AND MAGNETIC ORDERING IN DyB_2C_2 STUDIED BY SYMMETRY ANALYSIS AND NEUTRON DIFFRACTION**
O. Zaharko, W. Sikora, F. Bialas, *U. Staub*, and T. Nakamura, *Phys. Rev. B* **69**, 224417 (2004).

116. **CHARGE DISPROPORTIONATION OBSERVED BY RESONANT X-RAY SCATTERING AT THE METAL-INSULATOR TRANSITION IN NdNiO₃**
V. Scagnoli, U. Staub, M. Janousch, G. I. Meijer, L. Paolasini, F. D'Acapito, J. G. Bednorz, and R. Allenspach, *J. Mag. Mag. Mat.* **272-276**, 420 (2004).
115. **DIRECT AND QUANTITATIVE DETERMINATION OF THE ORBITAL ORDERING IN CeB₆ BY X-RAY DIFFRACTION**
Y. Tanaka, U. Staub, K. Katsumata, S. W. Lovesey, J. E. Lorenzo, Y. Narumi, V. Scagnoli, S. Shimomura, Y. Tabata, Y. Onuki, Y. Kuramoto, A. Kikkawa, T. Ishikawa, and H. Kitamura, *Europhys. Lett.* **68**, 671 (2004).
114. **INFLUENCE OF SINGLE-SITE AND COOPERATIVE MAGNETIC EFFECTS ON PHONONS IN CeNi-BASED COMPOUNDS**
V. N. Lazukov, N.N. Tiden, P. A. Alekseev, M. Braden, E. S. Clementyev, E.V. Nefedova, U. Staub, I. P. Sadikov, and G. Lapertot, *Phys. Stat. Sol. C*, **1**, 3174-7 (2004).

2003

113. **CRYSTAL-FIELD LEVELS IN PURE AND DILUTE DyB₂C₂ STUDIES BY NEUTRON INELASTIC SCATTERING TECHNIQUE**
T. Nakamura, U. Staub, Y. Narumi, K. Katsumata and F. Jurany, *Europhys. Lett.* **62**, 251 (2003).
112. **EPR STUDY OF SOME RARE-EARTH IONS (Dy³⁺, Tb³⁺ AND Nd³⁺) IN YBa₂Cu₃O₆-COMPOUND**
M. R. Gafurov, V. A. Ivanshin, I. N. Kurkin, M. P. Rodionova, H. Keller, M. Gutmann, and U. Staub, *J. Mag. Res.*, **161**, 210 (2003).
111. **NEPTUNIUM OCTUPOLE AND HEXADECAPOLE MOTIF IN NpO₂ DIRECTLY FROM ELECTRIC-DIPOLE (E1) ENHANCED X-RAY DIFFRACTION**
S. W. Lovesey, E. Balcar, C. Detlefs, G. van der Laan, D. S. Sivia, and U. Staub, *J. Phys.: Condens. Matter.* **15**, 4511 (2003).
110. **COMPLEX MAGNETIC GROUND-STATE OF CuB₂O₄**
M. Boehm, B. Roessli, J. Schefer, A. Wills, B. Ouladdiaf, E. Lelièvre-Berna, U. Staub, and G. A. Petrakovskii, *Phys. Rev. B* **68**, 24405 (2003).

2002

109. **DIRECT OBSERVATION OF CHARGE ORDER IN AN EPITAXIAL NdNiO₃ FILM**
U. Staub, G. I. Meijer, F. Fauth, R. Allenspach, G. Bednorz, J. Karpinski, S. M. Kazakov, L. Paolasini, and F. d'Acapito, *Phys. Rev. Lett.* **88**, 126402 (2002).
108. **4f-ELECTRON CORRELATIONS AND LATTICE PROPERTIES OF A VALENCE-UNSTABLE CeNi**
V. N. Lazukov, E. V. Nefedova, V. V. Sikolenko, U. Staub, P. A. Alekseev, K. S. Nemkovskii, C. Pradervand, I. P. Sadikov, L. Soderholm, N. N. Tiden, *Phys. Met. Metallography* **93**, 161 (2002).

107. **CHARGE ORDER AND CRYSTAL STRUCTURE BELOW THE FIRST-ORDER “METAL-INSULATOR” TRANSITION IN Yb_4As_3**
U. Staub, B. D. Patterson, C. Schulze-Briese, F. Fauth, M. Shi, L. Soderholm, G. B. M. Vaughan, E. Dooryhee, J. O. Cross, and A. Ochiai, *Physica B* **318**, 284 (2002).
106. **A NEUTRON SCATTERING AND μSR INVESTIGATION OF THE MANGANESE PHASE TRANSITIONS OF CuB_2O_4**
M. Boehm, B. Roessli, J. Schefer, B. Ouladdiaf, A. Amato, C. Baines, *U. Staub*, G. A. Petrakovskii, *Physica B* **318**, 277 (2002).
105. **f -ELECTRON EXCITATIONS IN THE NEUTRON SPECTRA OF MIXED-VALENCE $\text{Sm}_{1-x}\text{Y}_x\text{S}$**
P. A. Alekseev, J.-M. Mignot, *U. Staub*, A. Ochiai, A. V. Golubkov, M. Braden, R. I. Bewley, E.V. Nefeodova, I. P. Sadikov, E. S. Clementyev, V. N. Lazukov, and K.S. Nemkovski, *Physica B* **312-313**, 333 (2002).
104. **SOLITON LATTICE IN COPPERMETABORATE, CuB_2O_4 , IN THE PRESENCE OF AN EXTERNAL MAGNETIC FIELD**
J. Schefer, M. Boehm, B. Roessli, G. A. Petrakovskii, B. Ouladdiaf, and *U. Staub*, *Appl. Phys. A* **74**, 1740 (2002).
103. **MAGNETIC PROPERTIES OF COPPER METABORATE CuB_2O_4**
G. A. Petrakovskii, A. I. Pankatras, M. A. Popov, A. D. Balaev, D. A. Velikanov, A. M. Vorotynov, K. A. Sablina, B. Roessli, J. Schefer, A. Amato, *U. Staub*, M. Boehm, B. Ouladdiaf, *Low Temp. Phys.* **28**, 606 (2002).
102. **MAGNETIC X-RAY SCATTERING AND ABSORPTION**
U. Staub, in *Proc. “1st School on Condensed Matter Physics”, Zuoz, 10-17.8.2002*, (ISSN 1019-6447), p. 93-117 (2002).
101. **LATTICE ANOMALIES IN CeNi UNSTABLE VALENCE COMPOUND**
V. N. Lazukov, E. V. Nefeodova, V. V. Sikolenko, *U. Staub*, P. A. Alekseev, M. Braden, K. S. Nemkovski, C. Pradervand, I. P. Sadikov, L. Soderholm, and N. N. Tiden, *Appl. Phys. A*, **74**, 559 (2002).

2001

100. **LOW-ENERGY MAGNETIC RESPONSE AND Yb VALENCE IN THE KONDO INSULATOR YbB_{12}**
P. A. Alekseev, E. V. Nefeodova, *U. Staub*, J.-M. Mignot, V. N. Lazukov, P. Sadikov, L. Soderholm, S. R. Wassermann, Yu. B. Paderno, N. Yu. Shitsevalova, A. Murani, *Phys. Rev. B* **63**, 064411 (2001).

99. **DIRECT OBSERVATION OF 1-DIMENSIONAL CHARGE ORDER BELOW THE FIRST ORDER “METAL-INSULATOR” TRANSITION IN Yb_4As_3**
U. Staub, B.D. Patterson, C. Schulze-Briese, F. Fauth, M. Shi, L. Soderholm, G. B. M. Vaughan, and A. Ochiai, *Europhys. Lett.* **53**, 72 (2001).
98. **FORMATION OF A MAGNETIC SOLITON LATTICE IN COPPER METABORATEB.**
 Roessli, J. Schefer, G. Petrakovskii, B. Ouladdiaf, M. Boehm, *U. Staub*, A. Vorotinov, and L. Bezmaternikh, *Phys. Rev. Lett.* **86**, 1885 (2001).
97. **THE SITE-SPECIFIC ELECTRONIC STRUCUTRE OF Pr IN $\text{Pr}_{1-x}\text{Ba}_{2+x}\text{Cu}_3\text{O}_{7-\delta}$**
U. Staub, M. Shi, A. G. O’Conner, M. J. Kramer, M. Knapp, *Phys. Rev. B* **63**, 134522 (2001).
96. **REPLY TO “COMMENT ON MAGNETOELASTIC MODEL FOR THE RELAXATION OF LANTHANIDE IONS IN $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ OBSERVED BY NEUTRON SCATTERING**
 Stephen W. Lovesey and *U. Staub*, *Phys. Rev. B* **64**, 066502, (2001)
95. **MAGNETIC PHASE TRANSITION IN THE DOUBLE SPIN-CHAINS COMPOUND LiCu_2O_2**
 B. Roessli, *U. Staub*, A. Amato, D. Herlach, P. Pattison, K. Sablina, and G. A. Petrakovskii, *Physica B* **296**, 306 (2001).
94. **REAL PART EXAFS FROM MULTILAYER BRAGG REFLECTIONS: A PROMISING NEW EXAFS TECHNIQUE**
U. Staub, O. Zaharko, H. Grimmer, M. Horisberger, and F. d’Acaprio, *Europhys. Lett.* **56**, 241 (2001).
93. **SIMULTANEOUS DETERMINATION OF THE ELECTRONIC AND CHEMICAL STRUCTURES IN $\text{CeNi}_x\text{Cu}_{5-x}$ AT HIGH PRESSURES**
U. Staub, C. Schulze-Briese, P. A. Alekseev, M. Hanfland, S. Pascarelli, V. Honkimäki, and Oleg D. Chistyakov. *J Phys.: Condens. Matter*, **13**, 11511 (2001).
92. **FIELD DEPENDENCE OF THE MAGNETIC SOLITON LATTICE IN CuB_2O_4**
 M. Boehm; B. Roessli; J. Schefer; B. Ouladdiaf; *U. Staub* and G. Petrakovskii, in Proceedings of the International Workshop on New Opportunities in Single Crystal Spectroscopy with Neutrons (KFKI-2001-01/E). Hungarian Acad. Sci, Budapest, Hungary; 2001; 94 pp. p.71-2.
- 2000
91. **VALENCE DETERMINATION AS A FUNCTION OF DOPING IN $\text{PrBa}_2\text{Cu}_3\text{O}_{7-\delta}$**
U. Staub, L. Soderholm, S. R. Wasserman, A.G. O. Conner, M. J. Kramer, B. Patterson, M. Shi, and M. Knapp, *Phys. Rev. B* **61**, 1548 (2000).
90. **A MANGETO-ELASTIC MODEL FOR THE RELAXATION OF LANTHANIDE IONS IN $\text{YBa}_2\text{Cu}_3\text{O}_{7-d}$ OBSERVED BY NEUTRON SCATTERING**
 Stephen W. Lovesey and Urs Staub, *Phys. Rev. B* **61**, 9130 (2000).
89. **THE MAGNETIC PROPERTIES OF Pr IN THE HIGH- T_c SUPERCONDUCTOR $\text{Pb}_2\text{Sr}_2\text{R}_{1-x}\text{Ca}_x\text{Cu}_3\text{O}_{8-\delta}$**

U. Staub, L. Soderholm, S. Skanthakumar, R. Osborn, F. Fauth, and C. Ritter, *Physica C* **333**, 13 (2000).

88. **MAGNETIC ORDERING IN Li_2CuO_2 STUDIED BY μSR TECHNIQUE**

U. Staub, B. Roessli, A. Amato, *Physica B* **289-290**, 299 (2000).

87. **ELECTRONIC $4f$ STATE SPLITTINGS IN CUPRATES**

U. Staub and L. Soderholm, in *Handbook of Chemistry and Physics of Rare Earth's*, edited by K. A. Gschneidner, Jr., L. Eyring and M. B. Maple, Amsterdam, North-Holland, Vol. 30, pp. 491-545 (2000).

86. **MULTILAYER OPTICS FOR SOFT X-RAYS**

H. Grimmer, M. Horisberger, *U. Staub*, H.-Ch. Mertins, and F. Schäfers, in *Advances in Structure Analysis*, edited by R. Kuzel und J. Hasek pp.311-319 (2000).

85. **ELECTRON PARAMAGNETIC RESONANCE OF Tb^{3+} IONS IN $\text{YBa}_2\text{Cu}_3\text{O}_6$**

M. R. Gafurov, V. A. Ivanshin, I. N. Kurkin, M. P. Rodionova, H. Keller, M. Gutmann, and *U. Staub*, *J. Supercond.* **13**, 895 (2000).

1999

84. **DIFFICULTY OF PROBING THE SUPERCONDUCTING GAP WITH RELAXATION MEASUREMENTS ON $4f$ CRYSTAL-FIELD TRANSITIONS WITH NEUTRON SCATTERING**

U. Staub, M. Gutmann, F. Fauth, and W. Kagunya, *J. Phys.: Condens. Matter* **11**, L59 (1999).

83. **SOFT X-RAY DIFFRACTION ANOMALOUS FINE STRUCTURE ON Ni/V MULTILAYERS**

U. Staub, H. Grimmer and H.-Ch. Mertins, *J. Phys.: Condens. Matter* **11**, 5691 (1999).

82. **WEAK FERROMAGNETISM IN CuB_2O_4 COPPER METABORATE**

G. Petrakovskii, D. Velikaniv, A. Vorotinov, A. Balaev, K. Sablina, A. Amato, B. Roessli, J. Schefer, and *U. Staub*, *J. Mag. Mag. Mat.* **205**, 105 (1999).

81. **THE EXCEPTIONAL BEHAVIOUR OF Pr, Ce AND Tb IN HIGH- T_c SUPERCONDUCTORS**

U. Staub, *Materials Science Forum* **315-317**, 306 (1999).

80. **OPTICAL COMPONENTS FOR POLARIZATION ANALYSIS OF SOFT X-RAY RADIATION**

Hans Grimmer, Oksana Zaharko, Michael Horisberger, Hans-Christoph Mertins, Franz Schäfers, and Urs Staub, in *Proc. X-Ray Optics Design, Performance, and Applications, Denver, USA*, SPIE **3773**, 224 (1999).

79. **CRYSTALLINE ELECTRIC FIELD OF THE RARE-EARTH NICKELATES RNiO_3 (R=Pr, Nd, Sm, Eu, AND $\text{Pr}_{1-x}\text{La}_x$, $0 \leq x \leq 0.7$) DETERMINED BY INELASTIC NEUTRON SCATTERING**

S. Rosenkranz, M. Medarde, F. Fauth, J. Mesot, M. Zolliker, A. Furrer, *U. Staub*, P. Lacorre, R. Osborn, R. S. Eccelston, V. Trounov, *Phys. Rev. B* **60**, 14857 (1999).

78. **THE ROLE OF SELECTED f-IONS IN THE SUPPRESSION OF HIGH-T_c SUPERCONDUCTIVITY**

L. Soderholm and *U. Staub*, *Electron Correlations and Materials Properties*, edited by Gonis et al., Kluwer Academic/Plenum Publishers, pp 115-135 (1999).

1998

77. **STRUCTURAL DISORDER IN THE Pb₂Sr₂Y_{1-x}Ca_xCu₃O₈ CUPRATES**

U. Staub, L. Soderholm, S. Skanthakumar, P. Pattison, and K. Conder, *Phys. Rev. B* **57**, 5535 (1998).

76. **THE EFFECT OF SURFACE MODIFICATION ON THE INTERLAYER CHEMISTRY OF IRON IN A SMECTITE CLAY**

Stephen R. Wassermann, L. Soderholm, and *U. Staub*, *Chem. Matt.* **10**, 559 (1998).

75. **MAGNETIC GROUND STATE OF Pr IN (Pr_{1.5}Ce_{0.5})Sr₂Cu₂NbO_{10-δ}**

U. Staub, L. Soderholm, R. Osborn, T.J. Goodwin, H. B. Radousky, and R. N. Shelton, *J. Phys.: Condens. Matter* **10**, 4637 (1998).

1997

74. **THE TOTAL FLUORESCENCE YIELD FROM MAGNETIC MATERIALS USING CIRCULARLY POLARIZED X-RAYS**

Stephen L. Lovesey and Urs Staub, *J. Phys.: Condens. Matter* **9**, 4271 (1997).

73. **WAVE VECTOR DEPENDENCE OF INTERMULTIPLY TRANSITIONS IN EuBa₂Cu₃O_x (x=6.1 and 7): AN INELASTIC NEUTRON SCATTERING STUDY**

U. Staub, R. Osborn, E. Balcar, L. Soderholm, and V. Trounov, *Phys. Rev B* **55**, 11629 (1997).

72. **INTERMULTIPLY CRYSTAL FIELD TRANSITIONS IN EuNiO₃**

S. Rosenkranz, *U. Staub*, A. Furrer, R. Osborn, P. Lacorre, and V. Trounov, *J. Alloys Compounds* **250**, 577 (1997).

71. **MAGNETIC PROPERTIES OF Pb₂Sr₂PrCu₃O₈**

U. Staub, S. Skanthakumar, L. Soderholm, and R. Osborn, *J. Alloys Compounds* **250**, 581 (1997).

70. **THE EFFECT OF f-ION VALENCE ON SUPERCONDUCTIVITY IN THE SERIES Pb₂Sr₂RCu₃O₈ (R=Ce, Pr, Tb, and Am)**

L. Soderholm, S. Skanthakumar, *U. Staub*, Mark R. Antonio, *J. Alloys Compounds* **250**, 623 (1997).

69. **OXIDATION STATE OF THE UNUSUAL RARE EARTH (R=Ce, Pr and Tb) IN DOUBLE-LAYER HIGH-T_c SUPERCONDUCTORS**
U. Staub, L. Soderholm, S. Skanthakumar, and Mark R. Antonio, *J. Phys. IV France* **7**, C2-1077 (1997).
68. **MAGNETIC PROPERTIES OF Tb DOPED IN YBa₂Cu₃O_x**
U. Staub, F. Fauth, M. Gutmann, and W. Kagunya, *Physica B* **234-236**, 841 (1997).
67. **QUASI TWO-DIMENSIONAL MAGNETIC ORDER OF Tb³⁺ SPINS IN Pb₂Sr₂Tb_{0.5}Ca_{0.5}Cu₃O₈ (x=0 AND 0.5)**
U. Staub, L. Soderholm, S. Skanthakumar, S. Rosenkranz, C. Ritter, and W. Kagunya, *Z. Phys. B* **104**, 37 (1997).
66. **MAGNETIC PROPERTIES OF HoBa₂Cu₃O_{6+x}**
M. Pinkpank, A. Amato, F. N. Gygax, H. R. Ott, A. Schenck, *U. Staub*, , in Proc. of Third Summerschool on High Temperature Superconductivity 19-27. July 1997, Eger, Hungary. (1997).
65. **IMPORTANCE OF THE MAGNETIC GROUND-STATE FOR Pr IN HIGH-T_c SUPERCONDUCTORS**
U. Staub, L. Soderholm, S. Skanthakumar, R. Osborn, and F. Fauth, *Europhys. Lett.* **39**, 663 (1997).

1996

64. **SPUTTERING METHOD FOR IMPROVING COMPOSITE GERMANIUM MONOCHROMATORS**
J. Schefer, M. Medarde, S. Fischer, R. Thut, M. Koch, P. Fischer, *U. Staub*, M. Horisberger, G. Boettger, and A. Doenni, *Nucl. Instr. and Meth. in Phys. Res. A* **372**, 229-232 (1996).
63. **Tb SPIN CORRELATIONS IN Pb₂Sr₂Tb_{0.5}Ca_{0.5}Cu₃O₈**
U. Staub, L. Soderholm, S. Skanthakumar, S. Rosenkranz, C. Ritter, and W. Kagunya, *Europhys. Lett.* **34**, 447 (1996).
62. **A COMPARISON OF THE CATION VALENCES AND COORDINATIONS IN Ce₂UO₆ AND Ce₂MoO₆**
Mark R. Antonio, *U. Staub*, J. S. Xue, and L. Soderholm, *Chem. Mater* **8**, 2673 (1996).
61. **TWO-DIMENSIONAL SPIN FLUCTUATIONS OF Ho⁺³ IN HoBa₂Cu₃O₇**
U. Staub and C. Ritter, *Phys. Rev. B* **54**, 7279 (1996).
60. **COMMENT ON "LOCAL MAGNETISM AND CRYSTAL FIELDS OF Pr IN PrBa₂Cu₃O₇ STUDIED BY NMR**
U. Staub, *Phys. Rev. Lett.* **77**, 4688 (1996)

59. **A NEW TREATMENT OF FOCUSING VARIED-LINE GRATINGS WITH APPLICATION TO THE PETERSON PGM SYSTEM**
M. R. Howells and *U. Staub*, PSI report 96-20, ISSN 1019-0643; (1996).

58. **POWDER NEUTRON DIFFRATOMETER HRPT AND DMCG**
Peter Fischer, Andeas Dönni, Urs Staub and Markus Zolliker, in Proc. of the Neutron Summerschool 18.-24. Aug., Zuoz. (1996)

1995

57. **THE MAGNETIC PROPERTIES OF R IN $Pb_2Sr_2RCu_3O_8$ (R=Ho AND Er)**
L. Soderholm, C.-K. Loong, *U. Staub*, S. Skanthakumar, J. Simon Xue, J.P. Hammonds, J. E. Greedan and M. Maric, *Physica C* **246**, 11 (1995).

56. **COLLECTIVE MAGNETIC EXCITATIONS OF Ho^{3+} IONS IN GRAIN-ALIGNED $HoBa_2Cu_3O_x$ (x=7, 6.2)**
F. Fauth, *U. Staub*, M. Guillaume, J. Mesot, A. Furrer, P. Dosanjh, H. Zhou and P. Vorderwisch; *J. Phys.: Condens. Matter* **7**, 4215 (1995)

55. **COLLECTIVE MAGNETIC EXCITATIONS OF R^{3+} IONS IN GRAIN-ALIGNED $RBa_2Cu_3O_7$ (R=Ho, Er)**
F. Fauth, *U. Staub*, M. Guillaume, J. Mesot, A. Furrer, P. Dosanjh, H. Zhou, P. Vorderwisch and U. Stuhr, *J. Magn. Magn. Mat.* **140-144**, 1333 (1995)

54. **INTERMULTIPLY TRANSITIONS IN OPTICALLY OPAQUE $EuBa_2Cu_3O_7$: AN INELASTIC NEUTRON SCATTERING STUDY**
U. Staub, L. Soderholm, R. Osborn, M. Guillaume, A. Furrer, and V. Truonov, *J. Alloys. Compounds* **226**, 591 (1995)

53. **OBSERVATIONS OF CEF-SPLIT INTERMULTIPLY TRANSITIONS IN OPTICALLY OPAQUE $EuBa_2Cu_3O_7$ USING INELASTIC NEUTRON SCATTERING.**
U. Staub, L. Soderholm, R. Osborn, E. Balcar and V. Truonov; *Mat. Res. Soc. Symp.* vol. **376**, 535 (1995)

52. **THE OXIDATION STATE AND MAGNETIC BEHAVIOUR OF Tb IN HIGH T_c RELATED MATERIALS**
L. Soderholm, *U. Staub*, S. Skanthakumar and M. R. Antonio, *Mat. Res. Soc. Symp.* vol. **376**, 529 (1995)

51. **OXIDATION STATE AND MAGNETIC PROPERTIES OF Tb IN $Pb_2Sr_2TbCu_3O_8$**
U. Staub, L. Soderholm, S. Skanthakumar, Mark R. Antonio, and J. Simon Xue, *Phys. Rev. B* **52**, 9736 (1995).

50. **CRYSTAL FIELD-SPLIT INTERMULTIPLY TRANSITIONS AND THEIR Q-DEPENDENCE IN $EuBa_2Cu_3O_7$**

U. Staub, R. Osborn, L. Soderholm and V. Trounov; *Europhys. Lett.* **31**, 175 (1995).

1994

49. **CRYSTAL-FIELD EXCITATIONS IN HIGH- T_c SUPERCONDUCTING MATERIALS**
J. Mesot, P. Allenspach, *U. Staub*, and A. Furrer, *Neutron News* **5**, 20 (1994).
48. **Ho^{3+} DIMER EXCITATIONS AND Cu^{2+} SPIN FLUCTUATIONS IN $\text{Ho}_{0.1}\text{Y}_{0.9}\text{Ba}_2\text{Cu}_3\text{O}_x$ ($6.6 \leq x \leq 7.0$)**
M. Guillaume, *U. Staub*, F. Fauth, J. Mesot, A. Furrer, and C. J. Carlile, *Physica C* **223**, 333 (1994).
47. **NEUTRON SPECTROSCOPIC STUDIES OF THE CRYSTAL FIELD IN $\text{HoBa}_2\text{Cu}_3\text{O}_x$ ($6 < x < 7$)**
U. Staub, J. Mesot, M. Guillaume, P. Allenspach, A. Furrer, H. Mutka, Z. Bowden, and A. Taylor, *Phys. Rev. B* **50**, 4068 (1994).
46. **NEUTRON SPECTROSCOPY IN $\text{RBa}_2\text{Cu}_3\text{O}_x$ (R=Ho, Er; $6 < x < 7$) COMPOUNDS**
A. Furrer, J. Mesot, *U. Staub*, F. Fauth, and M. Guillaume, *J. Alloys Compounds* **207/208** 138 (1994).
45. **NEUTRON SPECTROSCOPY IN $\text{RBa}_2\text{Cu}_3\text{O}_x$ (R=RARE EARTH) COMPOUNDS: CHARGE TRANSFER, PHASE SEPARATION, SPIN FLUCTUATIONS**
A. Furrer, J. Mesot, P. Allenspach, *U. Staub*, F. Fauth, and M. Guillaume, in *Proc. of Sec. Workshop on Phase Separation in Cuprate Superconductors*, 4. - 10. Sept. 1993, Cottbus, Germany (1994)
44. **COLLECTIVE MAGNETIC EXCITATIONS OF Ho^{3+} IN GRAIN-ALIGNED $\text{HoBa}_2\text{Cu}_3\text{O}_7$**
U. Staub, F. Fauth, M. Guillaume, J. Mesot, A. Furrer, P. Dosanjh, H. Zhou, and P. Vorderwisch, *J. Appl. Phys.* **75**, 6334 (1994).
43. **COMBINED ELECTRONIC-NUCLEAR MAGNETIC ORDERING OF THE Ho^{3+} IONS AND MAGNETIC STACKING FAULTS IN $\text{HoBa}_2\text{Cu}_3\text{O}_x$ ($x=7.0, 6.8, 6.3$)**
B. Roessli, P. Fischer, *U. Staub*, M. Zolliker, and A. Furrer, *J. Appl. Phys.* **75**, 6337 (1994).
42. **Tb OXIDATION STATE AND HYBRIDISATION IN $\text{Y}_{0.9}\text{Tb}_{0.1}\text{Ba}_2\text{Cu}_3\text{O}_{7-d}$ ($d=0.02, 0.84$) A MAGNETIC-SUSCEPTIBILITY AND X-RAY ABSORPTION STUDY**
U. Staub, Mark. R. Antonio, L. Soderholm, M. Guillaume, W. Henggeler, and A. Furrer, *Phys. Rev. B* **50**, 7085 (1994).
41. **ANTIFERROMAGNETIC ORDERING AND CRYSTAL-FIELD SPLITTINGS OF THE Ho^{3+} IONS IN $\text{HoBa}_2\text{Cu}_4\text{O}_8$**
B. Roessli, P. Fischer, M. Guillaume, J. Mesot, *U. Staub*, M. Zolliker, A. Furrer, E. Kaldis, J. Karpinski and E. Jilek, *J. Phys.: Condens. Matter* **6**, 4147 (1994).

40. **MAGNETIC PROPERTIES OF Nd³⁺ IN Nd—Ba—Cu—O-COMPOUNDS**
P. Allenspach, J. Mesot, *U. Staub*, M. Guillaume, A. Furrer, S.-I. Yoo, M. J. Kramer, R.W. McCallum, H. Maletta, H. Blank, H. Mutka, R. Osborn, M. Arai, Z. Bowden and A.D. Taylor, *Z. Phys. B* **95**, 301 (1994)
39. **A SYSTEMATIC LOW-TEMPERATURE NEUTRON DIFFRACTION STUDY OF THE RBa₂Cu₃O_x (R=YTTRIUM AND RARE EARTHS; X=6 AND 7) COMPOUNDS**
M. Guillaume, P. Allenspach, W. Henggeler, J. Mesot, B. Roessli, *U. Staub*, P. Fischer, A. Furrer, and V. Truonov, *J. Phys.: Condens. Matter* **6**, 7963 (1994).
38. **Ho³⁺ DIMER EXCITATIONS IN Y_{0.9}Ho_{0.1}Ba₂Cu₃O₇ (6.6≤x≤7.0)**
M. Guillaume, *U. Staub*, F. Fauth, J. Mesot, A. Furrer, and C. J. Carlile, *Physica C* **233**, 333 (1994).

1993

37. **A SYSTEMATIC NEUTRON DIFFRACTION STUDY OF RBa₂Cu₃O₇ (R=YTTRIUM AND RARE EARTHS) HIGH-T_c SUPERCONDUCTORS**
M. Guillaume, P. Allenspach, J. Mesot, *U. Staub*, B. Roessli, and A. Furrer, in *Z. Phys. B-Condensed Matter* **90**, 13 (1993).
36. **NEUTRON SPECTROSCOPIC EVIDENCE FOR CLUSTER FORMATION AND PERCOLATIVE SUPERCONDUCTIVITY IN ErBa₂Cu₃O_x**
J. Mesot, P. Allenspach, *U. Staub*, A. Furrer, and H. Mutka, *Phys. Rev. Lett.* **70**, 865 (1993).
35. **NEUTRON SPECTROSCOPIC STUDIES OF THE CRYSTAL FIELD IN ErBa₂Cu₃O₇**
J. Mesot, P. Allenspach, *U. Staub*, A. Furrer, H. Mutka, R. Osborn, and A. D. Taylor, *Phys. Rev. B* **47**, 6027 (1993).
34. **CRYSTAL FIELD, CLUSTER FORMATION AND PERCOLATIVE SUPERCONDUCTIVITY IN ErBa₂Cu₃O_x**
U. Staub, J. Mesot, P. Allenspach, A. Furrer, and H. Mutka, *J. Alloys Comp.* **195**, 595 (1993).
33. **COLLECTIVE MAGNETIC EXCITATIONS OF Ho³⁺ IN GRAIN-ALIGNED HoBa₂Cu₃O₇**
U. Staub, F. Fauth, M. Guillaume, J. Mesot, A. Furrer, P. Dosanjh, and H. Zhou, *Europhys. Lett.* **21**, 845 (1993).
32. **COMBINED ELECTRONIC-NUCLEAR MAGNETIC ORDERING OF Ho³⁺ IONS AND MAGNETIC STACKING FAULTS IN THE HIGH-T_c SUPERCONDUCTOR HoBa₂Cu₃O₇**
B. Roessli, P. Fischer, *U. Staub*, M. Zolliker, and A. Furrer, *Europhys. Lett.* **23**, 511 (1993).
31. **CRYSTAL-FIELD SPLITTING AND TEMPERATURE DEPENDENCE OF TWO-DIMENSIONAL ANTIFERROMAGNETISM IN THE HIGH-T_c COMPOUND DyBa₂Cu₄O₈**
B. Roessli, P. Fischer, M. Zolliker, P. Allenspach, J. Mesot, *U. Staub*, A. Furrer, E. Kaldis, B. Bucher, J. Karpinski, E. Jilek, and H. Mutka, *Z. Phys. B* **91**, 149 (1993).

30. **A SYSTEMATIC NEUTRON STUDY OF $\text{RBa}_2\text{Cu}_3\text{O}_7$ (R=YTTRIUM AND RARE EARTHS) HIGH- T_c SUPERCONDUCTORS**

M. Guillaume, P. Allenspach, J. Mesot, B. Roessli, *U. Staub*, P. Fischer, and A. Furrer, *J. Alloys Comp.* **195**, 599 (1993).

29. **MAGNETIC EXCITATIONS IN GRAIN-ALIGNED $\text{HoBa}_2\text{Cu}_3\text{O}_7$ (ABSTRACT)**

U. Staub, F. Fauth, M. Guillaume, J. Mesot, and A. Furrer, *J. Appl. Phys.* **73**, 7022 (1993).

28. **CRYSTAL FIELD, PHASE SEPARATION, AND PERCOLATIVE SUPERCONDUCTIVITY IN $\text{ErBa}_2\text{Cu}_3\text{O}_7$ ($6 < x < 7$) (ABSTRACT)**

J. Mesot, P. Allenspach, *U. Staub*, and A. Furrer, *J. Appl. Phys.* **73**, 6334 (1993).

1992

27. **CRYSTAL STRUCTURES AND LONG-RANGE ANTIFERROMAGNETIC ORDERING IN $\text{REBa}_2\text{Cu}_3\text{O}_{7-d}$ (RE=Yb, Nd)**

B. Roessli, P. Allenspach, P. Fischer, J. Mesot, *U. Staub*, H. Maletta, P. Brüesch, C. Ritter, and A.W. Hewat, *Physica B* **180&181**, 396 (1992).

26. **NEUTRON SPECTROSCOPY AND DIFFRACTION STUDIES OF THE HIGH- T_c SUPERCONDUCTOR $\text{HoBa}_2\text{Cu}_3\text{O}_x$**

U. Staub, P. Allenspach, J. Mesot, H. Blank, and H. Mutka, *Physica B* **180&181**, 417 (1992).

25. **PRESSURE-INDUCED CHARGE REDISTRIBUTION IN $\text{ErBa}_2\text{Cu}_3\text{O}_x$ DETERMINED BY NEUTRON CRYSTAL-FIELD SPECTROSCOPY**

J. Mesot, *U. Staub*, P. Allenspach, A. Furrer, H. Mutka, and A. Hewat, *Physica B* **180&181**, 405 (1992).

24. **NEUTRON SPECTROSCOPY OF $\text{Nd}_{1-v+y}\text{Ca}_v\text{Ba}_{2-y}\text{Cu}_{3+z}\text{O}_x$**

P. Allenspach, J. Mesot, *U. Staub*, A. Furrer, H. Blank, H. Mutka, R. Osborn, A.D. Taylor, H. Maletta, M.J. Kramer, S.-I. Yoo, E. Kaldis, J. Karpinski, and S. Rusiecki, *Physica B* **180&181**, 389 (1992).

23. **NEUTRON DIFFRACTION STUDY OF "RE124" & "Nd247"**

P. Fischer, B. Roessli, J. Mesot, P. Allenspach, *U. Staub*, E. Kaldis, B. Bucher, J. Karpinski, S. Rusiecki, E. Jilek, and A. W. Hewat, *Physica B* **180&181**, 180 (1992).

22. **NEUTRON SPECTROSCOPY OF THE CRYSTALLINE ELECTRIC FIELD IN HIGH- T_c $\text{YbBa}_2\text{Cu}_3\text{O}_7$**

M. Guillaume, P. Allenspach, J. Mesot, *U. Staub*, and A. Furrer, *Solid State Communications*, Vol. **81**, No. 12, 999, 1992.

21. **NEUTRON SCATTERING STUDIES OF CRYSTAL STRUCTURE AND CRYSTALLINE ELECTRIC FIELD IN HIGH-T_c ErBa₂Cu₃O_x DISORDERED BY FAST NEUTRON IRRADIATION**

A. Mirmelstein, A. Podlesnyak, V. Voronin, S. Lebedev, B. Goshchitskii, P. Allenspach, J. Mesot, *U. Staub*, M. Guillaume, P. Fischer, and A. Furrer, *Physica C* **200**, 337 (1992).

1991

20. **NEUTRON SPECTROSCOPIC STUDIES OF THE RELATION BETWEEN SUPERCONDUCTIVITY AND THE CRYSTAL FIELD IN HIGH-TEMPERATURE SUPERCONDUCTORS**

A. Furrer, P. Allenspach, J. Mesot, *U. Staub*, H. Blank, H. Mutka, C. Vettier, and A. Mirmelstein, in Proc. of the "VI INTERNATIONAL SCHOOL ON NEUTRON PHYSICS", 8-18 October, 1990, Alushta, USSR Vol. 2, p. 278.

19. **NEUTRON SPECTROSCOPIC STUDIES OF CRYSTALLINE ELECTRIC FIELDS IN HIGH-T_c ErBa₂Cu₃O₇ DOPED WITH Zn and Ni**

A. Podlesnyak, V. Kozhevnikov, A. Mirmelstein, P. Allenspach, J. Mesot, *U. Staub*, A. Furrer, R. Osborn, S.M. Bennington, and A.D. Taylor, *Physica C* **175**, 587 (1991).

18. **THE CRYSTALLINE ELECTRIC FIELD AS A DIRECT PROBE FOR CHARGE TRANSFER PROCESSES IN HIGH-TEMPERATURE SUPERCONDUCTORS**

P. Allenspach, J. Mesot, *U. Staub*, A. Furrer, H. Blank, H. Mutka, C. Vettier, E. Kaldis, J. Karpinski, and S. Rusiecki, *Supercond. Sci. Technol.* **4**, 76 (1991).

17. **NEUTRON SPECTROSCOPIC STUDIES OF THE RELATION BETWEEN SUPERCONDUCTIVITY AND THE CRYSTAL FIELD IN HIGH-TEMPERATURE SUPERCONDUCTORS**

A. Furrer, P. Allenspach, J. Mesot, *U. Staub*, H. Blank, H. Mutka, C. Vettier, E. Kaldis, J. Karpinski, S. Rusiecki, and A. Mirmelstein, *Eur. J. Solid State Inorg. Chem.* **28**, 627 (1991).

16. **OXYGEN-VACANCY AND PRESSURE INDUCED CHANGES OF THE CRYSTAL-FIELD INTERACTION IN ErBa₂Cu₃O_x (6.1 ≤ x ≤ 7.0) DETERMINED BY INELASTIC NEUTRON SCATTERING**

P. Allenspach, J. Mesot, *U. Staub*, A. Furrer, H. Blank, H. Mutka, and C. Vettier, Proc. ICMC'90, Topical-Conf. on Material Aspects of High-Temperature Superconductors, Vol. 2, p. 707, ed. H.C. Freyhardt, R. Flükiger, M. Penckert (DGM Informationsgesellschaft, Verlag, 1991).

15. **THE CRYSTALLINE ELECTRIC FIELD AS A DIRECT PROBE FOR CHARGE TRANSFER PROCESSES IN HIGH-TEMPERATURE SUPERCONDUCTORS**

P. Allenspach, J. Mesot, *U. Staub*, A. Furrer, H. Blank, H. Mutka, C. Vettier, E. Kaldis, J. Karpinski, and S. Rusiecki, *Physica B* **171**, 269 (1991)

14. **NEUTRON SPECTROSCOPIC STUDIES OF CRYSTALLINE ELECTRIC FIELDS IN DISORDERED HIGH-T_c ErBa₂Cu₃O_x**

4. **PRESSURE INDUCED ELECTRONIC PROPERTIES OF $\text{ErBa}_2\text{Cu}_3\text{O}_x$ and $\text{ErBa}_2\text{Cu}_4\text{O}_8$**
P. Allenspach, J. Mesot, *U. Staub*, A. Furrer, H. Blank, H. Mutka, C. Vettier, E. Kaldis, J. Karpinski, and S. Rusiecki, Proc. Int. Workshop "Effects of Strong Disorder in HTSC", 25-29 June 1990, Zarechny, USSR, ed. B.N. Goshchitskii, V.I. Bobrovskii, p. 276.
3. **PRESSURE-INDUCED CHARGE REDISTRIBUTION IN $\text{ErBa}_2\text{Cu}_3\text{O}_x$ DETERMINED BY NEUTRON CRYSTAL-FIELD SPECTROSCOPY**
J. Mesot, *U. Staub*, P. Allenspach, A. Furrer, and C. Vettier, in Springer Series in Solid-State Sciences, Vol. 99, Electronic Properties of High-Tc Superconductors and Related Compounds, ed. H. Kuzmany, M. Mehring, J. Fink, 1990.
2. **NEUTRON SPECTROSCOPIC STUDIES OF THE RELATION BETWEEN SUPERCONDUCTIVITY AND THE CRYSTAL FIELD IN HIGH-Tc MATERIALS**
A. Furrer, P. Allenspach, J. Mesot, and *U. Staub*, Proc. Int. Workshop "Effects of Strong Disorder in HTSC", 25-29 June 1990, Zarechny, USSR, ed. B.N. Goshchitskii, V.I. Bobrovskii, p. 267.

1989

1. **NEUTRON SPECTROSCOPIC STUDIES OF THE RELATION BETWEEN SUPERCONDUCTIVITY AND THE CRYSTAL FIELD IN $\text{ErBa}_2\text{Cu}_3\text{O}_x$ ($6 < x \leq 7$) AND $\text{ErBa}_2\text{Cu}_4\text{O}_8$**
P. Allenspach, *U. Staub*, A. Furrer, E. Kaldis, J. Karpinski, S. Rusiecki, and H. Blank, Proc. Int. Conf. on Superconductivity, 1989, Paris, ed. R. Surayanaryanan (Inst. for Indust. Techn. Transfer, Paris, 1989).