

List of publications of E. Pom*akushina till 2019

REFERENCES

- ¹ J. Y. Yang, X. D. Shen, V Pomjakushin, L. Keller, E. Pomjakushina, Y. W. Long, and M. Kenzelmann. Characterization of magnetic symmetry and electric polarization of YCr_{0.5}Fe_{0.5}O₃. *PHYSICAL REVIEW B*, 101(1), JAN 13 2020. doi:[10.1103/PhysRevB.101.014415](https://doi.org/10.1103/PhysRevB.101.014415).
- ² Pascal Puphal, Vladimir Pomjakushin, Naoya Kanazawa, Victor Ukleev, Dariusz J. Gawryluk, Junzhang Ma, Muntaser Naamneh, Nicholas C. Plumb, Lukas Keller, Robert Cubitt, Ekaterina Pomjakushina, and Jonathan S. White. Topological Magnetic Phase in the Candidate Weyl Semimetal CeAlGe. *PHYSICAL REVIEW LETTERS*, 124(1), JAN 7 2020. doi:[10.1103/PhysRevLett.124.017202](https://doi.org/10.1103/PhysRevLett.124.017202).
- ³ Zurab Guguchia, Dariusz J. Gawryluk, Marta Brzezinska, Stepan S. Tsirkin, Rustem Khasanov, Ekaterina Pomjakushina, Fabian O. von Rohr, Joel A. T. Verezhak, M. Zahid Hasan, Titus Neupert, Hubertus Luetkens, and Alex Amato. Nodeless superconductivity and its evolution with pressure in the layered dirac semimetal 2M-WS₂. *NPJ QUANTUM MATERIALS*, 4, SEP 10 2019. doi:[10.1038/S41535-019-0189-5](https://doi.org/10.1038/S41535-019-0189-5).
- ⁴ Sumit Ranjan Maity, Monica Ceretti, Lukas Keller, Juerg Schefer, Tian Shang, Ekaterina Pomjakushina, Martin Meven, Denis Sheptyakov, Antonio Cervellino, and Werner Paulus. Structural disorder and magnetic correlations driven by oxygen doping in Nd₂NiO_{4+delta} (delta similar to 0.11). *PHYSICAL REVIEW MATERIALS*, 3(8), AUG 26 2019. doi:[10.1103/PhysRevMaterials.3.083604](https://doi.org/10.1103/PhysRevMaterials.3.083604).
- ⁵ M. Skoulatos, F. Rucker, G. J. Nilsen, A. Bertin, E. Pomjakushina, J. Olliver, A. Schneidewind, R. Georgii, O. Zaharko, L. Keller, Ch Rueegg, C. Pfeleiderer, B. Schmidt, N. Shannon, A. Kriele, A. Senyshyn, and A. Smerald. Putative spin-nematic phase in BaCdVO(PO₄)₂(2). *PHYSICAL REVIEW B*, 100(1), JUL 2 2019. doi:[10.1103/PhysRevB.100.014405](https://doi.org/10.1103/PhysRevB.100.014405).
- ⁶ T. Shang, J. Philippe, J. A. T. Verezhak, Z. Guguchia, J. Z. Zhao, L-J Chang, M. K. Lee, D. J. Gawryluk, E. Pomjakushina, M. Shi, M. Medarde, H-R Ott, and T. Shiroka. Nodeless superconductivity and preserved time-reversal symmetry in the noncentrosymmetric Mo₃P superconductor. *PHYSICAL REVIEW B*, 99(18), MAY 23 2019. doi:[10.1103/PhysRevB.99.184513](https://doi.org/10.1103/PhysRevB.99.184513).
- ⁷ Pascal Puphal, Stephan Allenspach, Christian Rueegg, and Ekaterina Pomjakushina. Floating Zone Growth of Sr Substituted Han Purple: Ba_{0.9}Sr_{0.1}CuSi₂O₆. *CRYSTALS*, 9(5), MAY 2019. doi:[10.3390/cryst9050273](https://doi.org/10.3390/cryst9050273).
- ⁸ P. Dudin, D. Herriott, T. Davies, A. Krzton-Maziopa, E. Pomjakushina, K. Conder, C. Cacho, J. R. Yates, and S. C. Speller. Imaging the local electronic and magnetic properties of intrinsically phase separated Rb-x(Fe_{2-y}Se₂ superconductor using scanning microscopy techniques. *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*, 32(4), APR 2019. doi:[10.1088/1361-6668/aaffa8](https://doi.org/10.1088/1361-6668/aaffa8).
- ⁹ Marc Raventos, Michael Tovar, Marisa Medarde, Tian Shang, Markus Strobl, Stavros Samothrakis, Ekaterina Pomjakushina, Christian Gruenzweig, and Soren Schmidt. Laue three dimensional neutron diffraction. *SCIENTIFIC REPORTS*, 9, MAR 18 2019. doi:[10.1038/s41598-019-41071-x](https://doi.org/10.1038/s41598-019-41071-x).
- ¹⁰ V Svitlyk, G. Garbarino, A. D. Rosa, E. Pomjakushina, A. Krzton-Maziopa, K. Conder, M. Nunez-Regueiro, and M. Mezouar. High-pressure polymorphism of BaFe₂Se₃. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 31(8), FEB 27 2019. doi:[10.1088/1361-648X/aaf777](https://doi.org/10.1088/1361-648X/aaf777).
- ¹¹ Pascal Puphal, Charles Mielke, Neeraj Kumar, Y. Soh, Tian Shang, Marisa Medarde, Jonathan S. White, and Ekaterina Pomjakushina. Bulk single-crystal growth of the theoretically predicted magnetic Weyl semimetals RAlGe (R = Pr, Ce). *PHYSICAL REVIEW MATERIALS*, 3(2), FEB 21 2019. doi:[10.1103/PhysRevMaterials.3.024204](https://doi.org/10.1103/PhysRevMaterials.3.024204).
- ¹² Daniel E. McNally, Xingye Lu, Jonathan Pellicciari, Sophie Beck, Marcus Dantz, Muntaser Naamneh, Tian Shang, Marisa Medarde, Christof W. Schneider, Vladimir N. Strocov, Ekaterina V. Pomjakushina, Claude Ederer, Milan Radovic, and Thorsten Schmitt. Electronic localization in CaVO₃ films via bandwidth control. *NPJ QUANTUM MATERIALS*, 4, FEB 11 2019. doi:[10.1038/s41535-019-0146-3](https://doi.org/10.1038/s41535-019-0146-3).
- ¹³ T. Shang, D. J. Gawryluk, J. A. T. Verezhak, E. Pomjakushina, M. Shi, M. Medarde, J. Mesot, and T. Shiroka. Structure and superconductivity in the binary Re_{1-x}Mox alloys. *PHYSICAL REVIEW MATERIALS*, 3(2), FEB 7 2019. doi:[10.1103/PhysRevMaterials.3.024801](https://doi.org/10.1103/PhysRevMaterials.3.024801).

- ¹⁴ Fatima Haydous, Wenping Si, Vitaliy A. Guzenko, Friedrich Waag, Ekaterina Pomjakushina, Mario El Kazzi, Laurent Severy, Alexander Wokaun, Daniele Pergolesi, and Thomas Lippert. Improved Photoelectrochemical Water Splitting of CaNbO₂N Photoanodes by CoPi Photodeposition and Surface Passivation. *JOURNAL OF PHYSICAL CHEMISTRY C*, 123(2):1059–1068, JAN 17 2019. doi: [10.1021/acs.jpcc.8b09629](https://doi.org/10.1021/acs.jpcc.8b09629).
- ¹⁵ Fatima Haydous, Max Dobeli, Wenping Si, Friedrich Waag, Fei Li, Ekaterina Pomjakushina, Alexander Wokaun, Bilal Goekce, Daniele Pergolesi, and Thomas Lippert. Oxynitride Thin Films versus Particle-Based Photoanodes: A Comparative Study for Photoelectrochemical Solar Water Splitting. *ACS APPLIED ENERGY MATERIALS*, 2(1):754–763, JAN 2019. doi: [10.1021/acsaem.8b01811](https://doi.org/10.1021/acsaem.8b01811).
- ¹⁶ T. Shang, M. Smidman, S. K. Ghosh, C. Baines, L. J. Chang, D. J. Gawryluk, J. A. T. Barker, R. P. Singh, D. McK. Paul, G. Balakrishnan, E. Pomjakushina, M. Shi, M. Medarde, A. D. Hillier, H. Q. Yuan, J. Quintanilla, J. Mesot, and T. Shiroka. Time-Reversal Symmetry Breaking in Re-Based Superconductors. *PHYSICAL REVIEW LETTERS*, 121(25), DEC 21 2018. doi: [10.1103/PhysRevLett.121.257002](https://doi.org/10.1103/PhysRevLett.121.257002).
- ¹⁷ A. Furrer, A. Podlesnyak, E. Pomjakushina, and V Pomjakushin. Spin triplet ground-state in the copper hexamer compounds A(2)Cu(3)O(SO₄)(3) (A = Na, K). *PHYSICAL REVIEW B*, 98(18), NOV 29 2018. doi: [10.1103/PhysRevB.98.180410](https://doi.org/10.1103/PhysRevB.98.180410).
- ¹⁸ Guochu Deng, Dehong Yu, Richard Mole, Ekaterina Pomjakushina, Kazimierz Conder, Michel Kenzelmann, Shin-ichiro Yano, Chin-Wei Wang, Kirrily C. Rule, Jason S. Gardner, Huiqian Luo, Shiliang Li, Clemens Ulrich, Paolo Imperia, Wei Ren, Shixun Cao, and Garry J. McIntyre. Spin dynamics of edge-sharing spin chains in SrCa₁₃Cu₂₄O₄₁. *PHYSICAL REVIEW B*, 98(18), NOV 12 2018. doi: [10.1103/PhysRevB.98.184411](https://doi.org/10.1103/PhysRevB.98.184411).
- ¹⁹ Tian Shang, Emmanuel Canevet, Mickael Morin, Denis Sheptyakov, Maria Teresa Fernandez-Diaz, Ekaterina Pomjakushina, and Marisa Medarde. Design of magnetic spirals in layered perovskites: Extending the stability range far beyond room temperature. *SCIENCE ADVANCES*, 4(10), OCT 2018. doi: [10.1126/sciadv.aau6386](https://doi.org/10.1126/sciadv.aau6386).
- ²⁰ N. Xu, Z. W. Wang, A. Magrez, P. Bugnon, H. Berger, C. E. Matt, V. N. Strocov, N. C. Plumb, M. Radovic, E. Pomjakushina, K. Conder, J. H. Dil, J. Mesot, R. Yu, H. Ding, and M. Shi. Evidence of a Coulomb-Interaction-Induced Lifshitz Transition and Robust Hybrid Weyl Semimetal in T-d-MoTe₂. *PHYSICAL REVIEW LETTERS*, 121(13), SEP 25 2018. doi: [10.1103/PhysRevLett.121.136401](https://doi.org/10.1103/PhysRevLett.121.136401).
- ²¹ G. Simutis, N. Barbero, K. Rolfs, P. Leroy-Calatayud, K. Mehlawat, R. Khasanov, H. Luetkens, E. Pomjakushina, Y. Singh, H-R Ott, J. Mesot, A. Amato, and T. Shiroka. Chemical and hydrostatic-pressure effects on the Kitaev honeycomb material Na₂IrO₃. *PHYSICAL REVIEW B*, 98(10), SEP 17 2018. doi: [10.1103/PhysRevB.98.104421](https://doi.org/10.1103/PhysRevB.98.104421).
- ²² Paula Bran-Anleu, Francesco Caruso, Timothy Wangler, Ekaterina Pomjakushina, and Robert J. Flatt. Standard and sample preparation for the micro XRF quantification of chlorides in hardened cement pastes. *MICROCHEMICAL JOURNAL*, 141:382–387, SEP 2018. doi: [10.1016/j.microc.2018.05.040](https://doi.org/10.1016/j.microc.2018.05.040).
- ²³ S. E. Nikitin, L. S. Wu, A. S. Sefat, K. A. Shaykhutdinov, Z. Lu, S. Meng, E. Pomjakushina, V. K. Conder, G. Ehlers, M. D. Lumsden, A. Kolesnikov, I. S. Barilo, S. A. Guretskii, D. S. Inosov, and A. Podlesnyak. Decoupled spin dynamics in the rare-earth orthoferrite YbFeO₃: Evolution of magnetic excitations through the spin-reorientation transition. *PHYSICAL REVIEW B*, 98(6), AUG 27 2018. doi: [10.1103/PhysRevB.98.064424](https://doi.org/10.1103/PhysRevB.98.064424).
- ²⁴ S. R. Giblin, M. Twengstrom, L. Bovo, M. Ruminy, M. Bartkowiak, P. Manuel, J. C. Andresen, D. Prabhakaran, G. Balakrishnan, E. Pomjakushina, C. Paulsen, E. Lhotel, L. Keller, M. Frontzek, S. C. Capelli, O. Zaharko, P. A. McClarty, S. T. Bramwell, P. Henelius, and T. Fennell. Pauling Entropy, Metastability, and Equilibrium in Dy₂Ti₂O₇ Spin Ice. *PHYSICAL REVIEW LETTERS*, 121(6), AUG 7 2018. doi: [10.1103/PhysRevLett.121.067202](https://doi.org/10.1103/PhysRevLett.121.067202).
- ²⁵ Ekaterina Pomjakushina, Katharina Rolfs, Janusz Karpinski, Kazimierz Conder, and Vladimir Pomjakushin. Neutron powder diffraction study of Tm₂Mn₂O₇ and Y₂Mn₂O₇ - pyrochlore obtained by yet another chemical route of synthesis. *ACTA CRYSTALLOGRAPHICA A-FOUNDATION AND ADVANCES*, 74(S):E329, AUG 2018. doi: [10.1107/S205327331809023X](https://doi.org/10.1107/S205327331809023X).
- ²⁶ V. Svitlyk, E. Pomjakushina, A. Krzton-Maziopa, K. Conder, and M. Mezouar. Formation of single-phase disordered CsxFe_{2-y}Se₂ at high pressure. *PHYSICAL REVIEW B*, 97(21), JUN 15 2018. doi: [10.1103/PhysRevB.97.214512](https://doi.org/10.1103/PhysRevB.97.214512).

- ²⁷ F. Li, V Pomjakushin, T. Mazet, R. Sibille, B. Malaman, R. Yadav, L. Keller, M. Medarde, K. Conder, and E. Pomjakushina. Revisiting the magnetic structure and charge ordering in $\text{La}_{1/3}\text{Sr}_{2/3}\text{FeO}_3$ by neutron powder diffraction and Mossbauer spectroscopy. *PHYSICAL REVIEW B*, 97(17), MAY 17 2018. doi:10.1103/PhysRevB.97.174417.
- ²⁸ N. Xu, Y. T. Qian, Q. S. Wu, G. Autes, C. E. Matt, B. Q. Lv, M. Y. Yao, V. N. Strocov, E. Pomjakushina, K. Conder, N. C. Plumb, M. Radovic, O. V. Yazyev, T. Qian, H. Ding, J. Mesot, and M. Shi. Trivial topological phase of CaAgP and the topological nodal-line transition in $\text{CaAg}(\text{P}_{1-x}\text{As}_x)$. *PHYSICAL REVIEW B*, 97(16), APR 23 2018. doi:10.1103/PhysRevB.97.161111.
- ²⁹ J. Hazi, T. Mousavi, P. Dudin, G. van der Laan, F. Maccherozzi, A. Krzton-Maziopa, E. Pomjakushina, K. Conder, and S. C. Speller. Magnetic imaging of antiferromagnetic and superconducting phases in $\text{RbxFe}_{2-y}\text{Se}_2$ crystals. *PHYSICAL REVIEW B*, 97(5), FEB 15 2018. doi:10.1103/PhysRevB.97.054509.
- ³⁰ T. Shang, G. M. Pang, C. Baines, W. B. Jiang, W. Xie, A. Wang, M. Medarde, E. Pomjakushina, M. Shi, J. Mesot, H. Q. Yuan, and T. Shiroka. Nodeless superconductivity and time-reversal symmetry breaking in the noncentrosymmetric superconductor $\text{Re}_{24}\text{Ti}_5$. *PHYSICAL REVIEW B*, 97(2), JAN 9 2018. doi:10.1103/PhysRevB.97.020502.
- ³¹ 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. Interplay of Fe and Tm moments through the spin-reorientation transition in TmFeO_3 . *PHYSICAL REVIEW B*, 96(17), NOV 7 2017. doi:10.1103/PhysRevB.96.174408.
- ³² Y. Z. Chen, M. Doebeli, E. Pomjakushina, Y. L. Gan, N. Pryds, and T. Lippert. Scavenging of oxygen vacancies at modulation-doped oxide interfaces: Evidence from oxygen isotope tracing. *PHYSICAL REVIEW MATERIALS*, 1(5), OCT 25 2017. doi:10.1103/PhysRevMaterials.1.052002.
- ³³ Q. N. Meier, M. Lilienblum, S. M. Griffin, K. Conder, E. Pomjakushina, Z. Yan, E. Bourret, D. Meier, F. Lichtenberg, E. K. H. Salje, N. A. Spaldin, M. Fiebig, and A. Cano. Global Formation of Topological Defects in the Multiferroic Hexagonal Manganites. *PHYSICAL REVIEW X*, 7(4), OCT 20 2017. doi:10.1103/PhysRevX.7.041014.
- ³⁴ M. E. Zayed, Ch. Ruegg, J. J. Larrea, A. M. Laeuchli, C. Panagopoulos, S. S. Saxena, M. Ellerby, D. F. McMorrow, Th. Strassel, S. Klotz, G. Hamel, R. A. Sadykov, V. Pomjakushin, M. Boehm, M. Jimenez-Ruiz, A. Schneidewind, E. Pomjakushina, M. Stingaciu, K. Conder, and H. M. Ronnow. 4-spin plaquette singlet state in the Shastry-Sutherland compound $\text{SrCu}_2(\text{BO}_3)_2$. *NATURE PHYSICS*, 13(10):962+, OCT 2017. doi:10.1038/NPHYS4190.
- ³⁵ Z. Guguchia, B. Roessli, R. Khasanov, A. Amato, E. Pomjakushina, K. Conder, Y. J. Uemura, J. M. Tranquada, H. Keller, and A. Shengelaya. Complementary Response of Static Spin-Stripe Order and Superconductivity to Nonmagnetic Impurities in Cuprates. *PHYSICAL REVIEW LETTERS*, 119(8), AUG 22 2017. doi:10.1103/PhysRevLett.119.087002.
- ³⁶ K. Rolfs, S. Toth, E. Pomjakushina, D. T. Adroja, D. Khalyavin, and K. Conder. Incommensurate magnetic order in a quasicubic structure of the double-perovskite compound $\text{Sr}_2\text{NiIrO}_6$. *PHYSICAL REVIEW B*, 95(14), APR 10 2017. doi:10.1103/PhysRevB.95.140403.
- ³⁷ A. Furrer, A. Podlesnyak, E. Pomjakushina, and V. Pomjakushin. Effect of Sr doping on the magnetic exchange interactions in manganites of type $\text{La}(1-x)\text{Sr}(x)\text{Mn}(y)\text{A}(1-y)\text{O}(3)$ ($\text{A} = \text{Ga}, \text{Ti}$; $0.1 \leq y \leq 1$). *PHYSICAL REVIEW B*, 95(10), MAR 14 2017. doi:10.1103/PhysRevB.95.104414.
- ³⁸ N. Xu, G. Autes, C. E. Matt, B. Q. Lv, M. Y. Yao, F. Bisti, V. N. Strocov, D. Gawryluk, E. Pomjakushina, K. Conder, N. C. Plumb, M. Radovic, T. Qian, O. V. Yazyev, J. Mesot, H. Ding, and M. Shi. Distinct Evolutions of Weyl Fermion Quasiparticles and Fermi Arcs with Bulk Band Topology in Weyl Semimetals. *PHYSICAL REVIEW LETTERS*, 118(10), MAR 10 2017. doi:10.1103/PhysRevLett.118.106406.
- ³⁹ M. Bendele, F. von Rohr, Z. Guguchia, E. Pomjakushina, K. Conder, A. Bianconi, A. Simon, A. Bussmann-Holder, and H. Keller. Evidence for strong lattice effects as revealed from huge unconventional oxygen isotope effects on the pseudogap temperature in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$. *PHYSICAL REVIEW B*, 95(1), JAN 19 2017. doi:10.1103/PhysRevB.95.014514.
- ⁴⁰ P. K. Biswas, M. Legner, G. Balakrishnan, M. Ciomaga Hatnean, M. R. Lees, D. Mck. Paul, E. Pomjakushina, T. Prokscha, A. Suter, T. Neupert, and Z. Salman. Suppression of magnetic excitations near the surface of the topological Kondo insulator SmB_6 . *PHYSICAL REVIEW B*, 95(2), JAN 18 2017. doi:10.1103/PhysRevB.95.020410.

- ⁴¹ Ekaterina Pomjakushina and Kazimierz Conder. Chemical Aspects of the Phase Separation in Alkali Metal Intercalated Iron Selenide Superconductors. In BussmannHolder, A and Keller, H and Bianconi, A, editor, *HIGH-TC COPPER OXIDE SUPERCONDUCTORS AND RELATED NOVEL MATERIALS: DEDICATED TO PROF. K. A. MULLER ON THE OCCASION OF HIS 90TH BIRTHDAY*, volume 255 of *Springer Series in Materials Science*, pages 243–252. 2017. doi:10.1007/978-3-319-52675-1_20.
- ⁴² Z. Guguchia, R. Khasanov, A. Shengelaya, E. Pomjakushina, S. J. L. Billinge, A. Amato, E. Morenzoni, and H. Keller. Cooperative coupling of static magnetism and bulk superconductivity in the stripe phase of $\text{La}_{2-x}\text{BaxCuO}_4$: Pressure- and doping-dependent studies. *PHYSICAL REVIEW B*, 94(21), DEC 20 2016. doi:10.1103/PhysRevB.94.214511.
- ⁴³ Mickael Morin, Emmanuel Canevet, Adrien Raynaud, Marek Bartkowiak, Denis Sheptyakov, Voraksmy Ban, Michel Kenzelmann, Ekaterina Pomjakushina, Kazimierz Conder, and Marisa Medarde. Tuning magnetic spirals beyond room temperature with chemical disorder. *NATURE COMMUNICATIONS*, 7, DEC 16 2016. doi:10.1038/ncomms13758.
- ⁴⁴ Ramunas Skaudzius, David Ensling, Martynas Skapas, Algirdas Selskis, Ekaterina Pomjakushina, Thomas Justel, Aivaras Kareiva, and Christian Ruegg. Europium-enabled luminescent single crystal and bulk YAG and YGG for optical imaging. *OPTICAL MATERIALS*, 60:467–473, OCT 2016. doi:10.1016/j.optmat.2016.08.032.
- ⁴⁵ B. Betz, P. Rauscher, R. P. Harti, R. Schaefer, A. Irastorza-Landa, H. Van Swygenhoven, A. Kaestner, J. Hovind, E. Pomjakushina, E. Lehmann, and C. Gruenzweig. Magnetization Response of the Bulk and Supplementary Magnetic Domain Structure in High-Permeability Steel Laminations Visualized In Situ by Neutron Dark-Field Imaging. *PHYSICAL REVIEW APPLIED*, 6(2), AUG 30 2016. doi:10.1103/PhysRevApplied.6.024023.
- ⁴⁶ Marcin Matusiak, Michal Babij, Ekaterina Pomjakushina, and Kazimierz Conder. Wiedemann-Franz law in iron-based superconductor $\text{Fe}_{1+d}\text{Te}_{1-x}\text{Sex}$. *PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS*, 253(8):1607–1611, AUG 2016. doi:10.1002/pssb.201552778.
- ⁴⁷ A. Krzton-Maziopa, V. Svitlyk, E. Pomjakushina, R. Puzniak, and K. Conder. Superconductivity in alkali metal intercalated iron selenides. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 28(29), JUL 27 2016. doi:10.1088/0953-8984/28/29/293002.
- ⁴⁸ M. Ruminy, E. Pomjakushina, K. Iida, K. Kamazawa, D. T. Adroja, U. Stuhr, and T. Fennell. Crystal-field parameters of the rare-earth pyrochlores $\text{R}_2\text{Ti}_2\text{O}_7$ ($\text{R} = \text{Tb}, \text{Dy}, \text{and Ho}$). *PHYSICAL REVIEW B*, 94(2), JUL 25 2016. doi:10.1103/PhysRevB.94.024430.
- ⁴⁹ M. Ruminy, M. Nunez Valdez, B. Wehinger, A. Bosak, D. T. Adroja, U. Stuhr, K. Iida, K. Kamazawa, E. Pomjakushina, D. Prabhakaran, M. K. Haas, L. Bovo, D. Sheptyakov, A. Cervellino, R. J. Cava, M. Kenzelmann, N. A. Spaldin, and T. Fennell. First-principles calculation and experimental investigation of lattice dynamics in the rare-earth pyrochlores $\text{R}_2\text{Ti}_2\text{O}_7$ ($\text{R} = \text{Tb}, \text{Dy}, \text{Ho}$). *PHYSICAL REVIEW B*, 93(21), JUN 29 2016. doi:10.1103/PhysRevB.93.214308.
- ⁵⁰ P. K. Biswas, D. G. Mazzone, R. Sibille, E. Pomjakushina, K. Conder, H. Luetkens, C. Baines, J. L. Gavilano, M. Kenzelmann, A. Amato, and E. Morenzoni. Fully gapped superconductivity in the topological superconductor $\beta\text{-PdBi}_2$. *PHYSICAL REVIEW B*, 93(22), JUN 13 2016. doi:10.1103/PhysRevB.93.220504.
- ⁵¹ Guochu Deng, D. Sheptyakov, V. Pomjakushin, M. Medarde, E. Pomjakushina, K. Conder, M. Kenzelmann, A. J. Studer, J. S. Gardner, and G. J. McIntyre. Chemical pressure effects on crystal and magnetic structures of bilayer manganites PrA(2)Mn(2)O(7) ($\text{A} = \text{Sr or Ca}$). *JOURNAL OF APPLIED PHYSICS*, 119(21), JUN 7 2016. doi:10.1063/1.4953143.
- ⁵² Yu. Pashkevich, V. Gnezdilov, P. Lemmens, T. Shevtsova, A. Gusev, K. Lamonova, D. Wulferding, S. Gnatchenko, E. Pomjakushina, and K. Conder. Phase separation in iron chalcogenide superconductor $\text{Rb}_{0.8+x}\text{Fe}_{1.6+y}\text{Se}_2$ as seen by Raman light scattering and band structure calculations. *LOW TEMPERATURE PHYSICS*, 42(6):491–504, JUN 2016. doi:10.1063/1.4954780.
- ⁵³ M. Ruminy, L. Bovo, E. Pomjakushina, M. K. Haas, U. Stuhr, A. Cervellino, R. J. Cava, M. Kenzelmann, and T. Fennell. Sample independence of magnetoelastic excitations in the rare-earth pyrochlore $\text{Tb}_2\text{Ti}_2\text{O}_7$. *PHYSICAL REVIEW B*, 93(14), APR 6 2016. doi:10.1103/PhysRevB.93.144407.
- ⁵⁴ N. Xu, H. M. Weng, B. Q. Lv, C. E. Matt, J. Park, F. Bisti, V. N. Strocov, D. Gawryluk, E. Pomjakushina, K. Conder, N. C. Plumb, M. Radovic, G. Autes, O. V. Yazyev, Z. Fang, X. Dai, T. Qian, J. Mesot,

- H. Ding, and M. Shi. Observation of Weyl nodes and Fermi arcs in tantalum phosphide. *NATURE COMMUNICATIONS*, 7, MAR 2016. doi:10.1038/ncomms11006.
- ⁵⁵ Fei Li, Dariusz Jakub Gawryluk, Ekaterina Pomjakushina, and Kazimierz Conder. High pressure synthesis of iron complex oxides in high oxidation state (Fe⁴⁺, Fe⁵⁺): mapping between localized and itinerant behavior. *ACTA CRYSTALLOGRAPHICA A-FOUNDATION AND ADVANCES*, 72(S):S275, 2016. doi:10.1107/S2053273316095826.
- ⁵⁶ A. S. Panfilov, G. E. Grechnev, A. V. Fedorchenko, K. Conder, and E. V. Pomjakushina. Magnetic properties of Mn-doped Bi₂Se₃ compound: temperature dependence and pressure effects. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 27(45), NOV 18 2015. doi:10.1088/0953-8984/27/45/456002.
- ⁵⁷ Ekaterina Pomjakushina, Vladimir Pomjakushin, Katharina Rolfs, Janusz Karpinski, and Kazimierz Conder. New Synthesis Route and Magnetic Structure of Tm₂Mn₂O₇ Pyrochlore. *INORGANIC CHEMISTRY*, 54(18):9092–9097, SEP 21 2015. doi:10.1021/acs.inorgchem.5b01498.
- ⁵⁸ Andreas Mann, Edoardo Baldini, Antonio Tramontana, Ekaterina Pomjakushina, Kazimierz Conder, Christopher Arrell, Frank van Mourik, Jose Lorenzana, and Fabrizio Carbone. Probing the electron-phonon interaction in correlated systems with coherent lattice fluctuation spectroscopy. *PHYSICAL REVIEW B*, 92(3), JUL 27 2015. doi:10.1103/PhysRevB.92.035147.
- ⁵⁹ Z. Guguchia, D. Sheptyakov, E. Pomjakushina, K. Conder, R. Khasanov, A. Shengelaya, A. Simon, A. Bussmann-Holder, and H. Keller. Oxygen isotope effects on lattice properties of La_{2-x}BaxCuO₄ (x=1/8). *PHYSICAL REVIEW B*, 92(2), JUL 13 2015. doi:10.1103/PhysRevB.92.024508.
- ⁶⁰ D. G. Mazzone, S. Gerber, J. L. Gavilano, R. Sibille, M. Medarde, B. Delley, M. Ramakrishnan, M. Neugebauer, L. P. Regnault, D. Chernyshov, A. Piovano, T. M. Fernandez-Diaz, L. Keller, A. Cervellino, E. Pomjakushina, K. Conder, and M. Kenzelmann. Crystal structure and phonon softening in Ca₃Ir₄Sn₁₃. *PHYSICAL REVIEW B*, 92(2), JUL 1 2015. doi:10.1103/PhysRevB.92.024101.
- ⁶¹ K. Rolfs, S. Toth, E. Pomjakushina, D. Sheptyakov, J. Taylor, and K. Conder. Spiral magnetic phase in Li-doped Na₂IrO₃. *PHYSICAL REVIEW B*, 91(18), MAY 20 2015. doi:10.1103/PhysRevB.91.180406.
- ⁶² D. G. Porter, E. Cemal, D. J. Voneshen, K. Refson, M. J. Gutmann, A. Bombardi, A. T. Boothroyd, A. Krzton-Maziopa, E. Pomjakushina, K. Conder, and J. P. Goff. Two-dimensional Cs-vacancy superstructure in iron-based superconductor Cs_{0.8}Fe_{1.6}Se₂. *PHYSICAL REVIEW B*, 91(14), APR 30 2015. doi:10.1103/PhysRevB.91.144114.
- ⁶³ Michael M. Yee, Z. H. Zhu, Anjan Soumyanarayanan, Yang He, Can-Li Song, Ekaterina Pomjakushina, Zaher Salman, Amit Kanigel, Kouji Segawa, Yoichi Ando, and Jennifer E. Hoffman. Spin-polarized quantum well states on Bi_{2-x}FexSe₃. *PHYSICAL REVIEW B*, 91(16), APR 24 2015. doi:10.1103/PhysRevB.91.161306.
- ⁶⁴ M. Skoulatos, S. Toth, B. Roessli, M. Enderle, K. Habicht, D. Sheptyakov, A. Cervellino, P. G. Freeman, M. Reehuis, A. Stunault, G. J. McIntyre, L. D. Tung, C. Marjerrison, E. Pomjakushina, P. J. Brown, D. I. Khomskii, Ch. Rueegg, A. Kreyssig, A. I. Goldman, and J. P. Goff. Jahn-Teller versus quantum effects in the spin-orbital material LuVO₃. *PHYSICAL REVIEW B*, 91(16), APR 13 2015. doi:10.1103/PhysRevB.91.161104.
- ⁶⁵ K. Komadera, A. K. Jasek, A. Blachowski, K. Ruebenbauer, M. Piskorz, J. Zukrowski, A. Krzton-Maziopa, E. Pomjakushina, and K. Conder. Magnetism of BaFe₂Se₃ studied by Mossbauer spectroscopy. *SOLID STATE COMMUNICATIONS*, 207:5–8, APR 2015. doi:10.1016/j.ssc.2015.01.016.
- ⁶⁶ M. Morin, A. Scaramucci, M. Bartkowiak, E. Pomjakushina, G. Deng, D. Sheptyakov, L. Keller, J. Rodriguez-Carvajal, N. A. Spaldin, M. Kenzelmann, K. Conder, and M. Medarde. Incommensurate magnetic structure, Fe/Cu chemical disorder, and magnetic interactions in the high-temperature multi-ferroic YBaCuFeO₅. *PHYSICAL REVIEW B*, 91(6), FEB 6 2015. doi:10.1103/PhysRevB.91.064408.
- ⁶⁷ Laszlo Almasy, Dorina Creanga, Claudia Nadejde, Laszlo Rosta, Ekaterina Pomjakushina, and Manuela Ursache-Oprisan. Wet milling versus co-precipitation in magnetite ferrofluid preparation. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY*, 80(3):367–376, 2015. doi:10.2298/JSC140313053A.
- ⁶⁸ Fanni Juranyi, Martin Mansson, Jorge L. Gavilano, Mattia Mena, Ekaterina Pomjakushina, Marisa Medarde, Jun Sugiyama, Kazuya Kamazawa, Bertram Batlogg, Hans R. Ott, and Tilo Seydel. Dynamics across the structural transitions at elevated temperatures in Na_{0.7}CoO₂. In Frick, B and Koza, MM and Boehm, M and Mutka, H, editor, *QENS/WINS 2014 - 11TH INTERNATIONAL CONFERENCE*

ON QUASIELASTIC NEUTRON SCATTERING AND 6TH INTERNATIONAL WORKSHOP ON INELASTIC NEUTRON SPECTROMETERS, volume 83 of *EPJ Web of Conferences*. Inst LaueLangevin; ESS; FRMII; HZB; ILL; ISIS; JCNS; LLB; PSI, 2015. 11th International Conference on Quasielastic Neutron Scattering / 6th International Workshop on Inelastic Neutron Spectrometers (QENS/WINS), Autrans, FRANCE, MAY 11-16, 2014. doi:10.1051/epjconf/20158302008.

- ⁶⁹ T. Prokscha, H. Luetkens, E. Morenzoni, G. J. Nieuwenhuys, A. Suter, M. Doebeli, M. Horisberger, and E. Pomjakushina. Depth dependence of the ionization energy of shallow hydrogen states in ZnO and CdS. *PHYSICAL REVIEW B*, 90(23), DEC 1 2014. doi:10.1103/PhysRevB.90.235303.
- ⁷⁰ Ekaterina Pomjakushina. As easy as pie? Large FeSe superconducting crystal, which is of the simplest structural type from the large family of iron based superconductors, is finally grown. *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*, 27(12), DEC 2014. doi:10.1088/0953-2048/27/12/120501.
- ⁷¹ M. Thede, T. Haku, T. Masuda, C. Baines, E. Pomjakushina, G. Dhahlenne, A. Revcolevschi, E. Morenzoni, and A. Zheludev. Inhomogeneous ordering in weakly coupled Heisenberg $S=1/2$ chains with random bonds. *PHYSICAL REVIEW B*, 90(14), OCT 6 2014. doi:10.1103/PhysRevB.90.144407.
- ⁷² N. Xu, C. E. Matt, E. Pomjakushina, X. Shi, R. S. Dhaka, N. C. Plumb, M. Radovic, P. K. Biswas, D. Evtushinsky, V. Zabolotnyy, J. H. Dil, K. Conder, J. Mesot, H. Ding, and M. Shi. Exotic Kondo crossover in a wide temperature region in the topological Kondo insulator SmB6 revealed by high-resolution ARPES. *PHYSICAL REVIEW B*, 90(8), AUG 28 2014. doi:10.1103/PhysRevB.90.085148.
- ⁷³ A. Furrer, A. Podlesnyak, M. Frontzek, I. Sashin, J. P. Embs, E. Mitberg, and E. Pomjakushina. Crystal-field interaction and oxygen stoichiometry effects in strontium-doped rare-earth cobaltates. *PHYSICAL REVIEW B*, 90(6), AUG 26 2014. doi:10.1103/PhysRevB.90.064426.
- ⁷⁴ Sara Lafuerza, Gloria Subias, Joaquin Garcia, Javier Blasco, Gareth Nisbet, Kazimierz Conder, and Ekaterina Pomjakushina. Determination of the sequence and magnitude of charge order in LuFe2O4 by resonant x-ray scattering. *PHYSICAL REVIEW B*, 90(8), AUG 21 2014. doi:10.1103/PhysRevB.90.085130.
- ⁷⁵ H. Saadaoui, T. Shiroka, A. Amato, C. Baines, H. Luetkens, E. Pomjakushina, V. Pomjakushin, J. Mesot, M. Pikulski, and E. Morenzoni. μ SR and NMR study of the superconducting Heusler compound YPd2Sn (vol 88, 094518, 2013). *PHYSICAL REVIEW B*, 90(5), AUG 19 2014. doi:10.1103/PhysRevB.90.059902.
- ⁷⁶ M. E. Zayed, Ch. Rueegg, Th. Straessle, U. Stuhr, B. Roessli, M. Ay, J. Mesot, P. Link, E. Pomjakushina, M. Stingaciu, K. Conder, and H. M. Ronnow. Correlated Decay of Triplet Excitations in the Shastry-Sutherland Compound SrCu2(BO3)2. *PHYSICAL REVIEW LETTERS*, 113(6), AUG 5 2014. doi:10.1103/PhysRevLett.113.067201.
- ⁷⁷ Sara Lafuerza, Gloria Subias, Javier Blasco, Joaquin Garcia, Gareth Nisbet, Kazimierz Conder, and Ekaterina Pomjakushina. Determination of the charge-ordered phases in LuFe2O4. *EPL*, 107(4), AUG 2014. doi:10.1209/0295-5075/107/47002.
- ⁷⁸ Z. Guguchia, R. Khasanov, M. Bendele, E. Pomjakushina, K. Conder, A. Shengelaya, and H. Keller. Negative Oxygen Isotope Effect on the Static Spin Stripe Order in Superconducting La_{2-x}BaxCuO₄ ($x=1/8$) Observed by Muon-Spin Rotation. *PHYSICAL REVIEW LETTERS*, 113(5), JUL 30 2014. doi:10.1103/PhysRevLett.113.057002.
- ⁷⁹ S. C. Speller, P. Dudin, S. Fitzgerald, G. M. Hughes, K. Kruska, T. B. Britton, A. Krzton-Maziopa, E. Pomjakushina, K. Conder, A. Barinov, and C. R. M. Grovenor. High-resolution characterization of microstructural evolution in RbxFe_{2-y}Se₂ crystals on annealing. *PHYSICAL REVIEW B*, 90(2), JUL 30 2014. doi:10.1103/PhysRevB.90.024520.
- ⁸⁰ Akihiko Hisada, Kazuyuki Matsubayashi, Yoshiya Uwatoko, Naoki Fujiwara, Guochu Deng, Ekaterina Pomjakushina, Kazimierz Conder, Dinadhayalane Mohan Radheep, Raman Thiyagarajan, Sankaran Esakkimuthu, and Sonachalam Arumugam. Superconductivity on a Crossover Phenomenon of Spin-Ladder System SrCa₁₃Cu₂₄O₄₁ Single Crystals. *JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN*, 83(7), JUL 2014. doi:10.7566/JPSJ.83.073703.
- ⁸¹ N. Xu, P. K. Biswas, J. H. Dil, R. S. Dhaka, G. Landolt, S. Muff, C. E. Matt, X. Shi, N. C. Plumb, M. Radovic, E. Pomjakushina, K. Conder, A. Amato, S. V. Borisenko, R. Yu, H. M. Weng, Z. Fang, X. Dai, J. Mesot, H. Ding, and M. Shi. Direct observation of the spin texture in SmB6 as evidence of the topological Kondo insulator. *NATURE COMMUNICATIONS*, 5, JUL 2014. doi:10.1038/ncomms5566.

- ⁸² A. Krzton-Maziopa, Z. Guguchia, E. Pomjakushina, V. Pomjakushin, R. Khasanov, H. Luetkens, P. K. Biswas, A. Amato, H. Keller, and K. Conder. Superconductivity in a new layered bismuth oxyarsenide: LaO_{0.5}F_{0.5}BiSe₂. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 26(21), MAY 28 2014. doi: [10.1088/0953-8984/26/21/215702](https://doi.org/10.1088/0953-8984/26/21/215702).
- ⁸³ M. E. Zayed, Ch. Rueegg, E. Pomjakushina, M. Stingaciu, K. Conder, M. Hanfland, M. Merlini, and H. M. Ronnow. Temperature dependence of the pressure induced monoclinic distortion in the spin S=1/2 Shastry-Sutherland compound SrCu₂(BO₃)₂. *SOLID STATE COMMUNICATIONS*, 186:13–17, MAY 2014. doi: [10.1016/j.ssc.2014.01.008](https://doi.org/10.1016/j.ssc.2014.01.008).
- ⁸⁴ V. Svitlyk, D. Chernyshov, A. Bosak, E. Pomjakushina, A. Krzton-Maziopa, K. Conder, V. Pomjakushin, V. Dmitriev, G. Garbarino, and M. Mezouar. Compressibility and pressure-induced disorder in superconducting phase-separated Cs_{0.72}Fe_{1.57}Se₂. *PHYSICAL REVIEW B*, 89(14), APR 14 2014. doi: [10.1103/PhysRevB.89.144106](https://doi.org/10.1103/PhysRevB.89.144106).
- ⁸⁵ P. K. Biswas, Z. Salman, T. Neupert, E. Morenzoni, E. Pomjakushina, F. von Rohr, K. Conder, G. Balakrishnan, M. Ciomaga Hatnean, M. R. Lees, D. McK Paul, A. Schilling, C. Baines, H. Luetkens, R. Khasanov, and A. Amato. Low-temperature magnetic fluctuations in the Kondo insulator SmB₆. *PHYSICAL REVIEW B*, 89(16), APR 14 2014. doi: [10.1103/PhysRevB.89.161107](https://doi.org/10.1103/PhysRevB.89.161107).
- ⁸⁶ V. Yu. Pomjakushin, A. Furrer, D. V. Sheptyakov, E. V. Pomjakushina, and K. Conder. Crystal and magnetic structures of the spin-trimer compounds Ca₃Cu_{3-x}Nix(PO₄)₄ (x = 0,1,2) (vol 76, 174433, 2007). *PHYSICAL REVIEW B*, 89(13), APR 11 2014. doi: [10.1103/PhysRevB.89.139903](https://doi.org/10.1103/PhysRevB.89.139903).
- ⁸⁷ M. Bendele, E. Pomjakushina, K. Conder, R. Khasanov, and H. Keller. Pressure Effects in the Iron Chalcogenides. *JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM*, 27(4):965–968, APR 2014. doi: [10.1007/s10948-013-2419-6](https://doi.org/10.1007/s10948-013-2419-6).
- ⁸⁸ P. S. Haefliger, S. Gerber, R. Pramod, V. I. Schnells, B. dalla Piazza, R. Chati, V. Pomjakushin, K. Conder, E. Pomjakushina, L. Le Dreau, N. B. Christensen, O. F. Syljuasen, B. Normand, and H. M. Ronnow. Quantum and thermal ionic motion, oxygen isotope effect, and superexchange distribution in La₂CuO₄. *PHYSICAL REVIEW B*, 89(8), FEB 18 2014. doi: [10.1103/PhysRevB.89.085113](https://doi.org/10.1103/PhysRevB.89.085113).
- ⁸⁹ S. E. Hahn, A. A. Podlesnyak, G. Ehlers, G. E. Granroth, R. S. Fishman, A. I. Kolesnikov, E. Pomjakushina, and K. Conder. Inelastic neutron scattering studies of YFeO₃. *PHYSICAL REVIEW B*, 89(1), JAN 23 2014. doi: [10.1103/PhysRevB.89.014420](https://doi.org/10.1103/PhysRevB.89.014420).
- ⁹⁰ M. L. Reinle-Schmitt, C. Cancellieri, A. Cavallaro, G. F. Harrington, S. J. Leake, E. Pomjakushina, J. A. Kilner, and P. R. Willmott. Chemistry and structure of homoepitaxial SrTiO₃ films and their influence on oxide-heterostructure interfaces. *NANOSCALE*, 6(5):2598–2602, 2014. doi: [10.1039/c3nr06456e](https://doi.org/10.1039/c3nr06456e).
- ⁹¹ E. Morenzoni, H. Saadaoui, A. Amato, C. Baines, H. Luetkens, E. Pomjakushina, M. Pikulski, and T. Shiroka. Field dependence of the superconducting gap in YPd₂Sn: A μ SR and NMR study. In Salman, Z and Amato, A and Luetkens, H and Morenzoni, E, editor, *13TH INTERNATIONAL CONFERENCE ON MUON SPIN ROTATION, RELAXATION AND RESONANCE*, volume 551 of *Journal of Physics Conference Series*. Paul Scherrer Inst, Lab Muon Spin Spectroscopy; Univ Zurich; Univ Fribourg; Swiss Natl Fdn; Costruzioni Apparecchiature Elettroniche Nucleari S p A; X TRONIX AG; BlueFors Cryogen Oy Ltd; TECO Rene Koch; Teledyne LeCroy SA, 2014. 13th International Conference on Muon Spin Rotation, Relaxation and Resonance (MuSR), Grindelwald, SWITZERLAND, JUN 01-06, 2014. doi: [10.1088/1742-6596/551/1/012027](https://doi.org/10.1088/1742-6596/551/1/012027).
- ⁹² E. Pomjakushina, A. Krzton-Maziopa, V. Pomjakushin, A. Bosak, D. Chernyshov, V. Svitlyk, V. Dmitriev, S. Speller, and K. Conder. Phase separation in AyFe_{2-x}Se₂ (A= K, Rb, Cs) superconductors. *ACTA CRYSTALLOGRAPHICA A-FOUNDATION AND ADVANCES*, 70(S):C1464, 2014. doi: [10.1107/S2053273314085350](https://doi.org/10.1107/S2053273314085350).
- ⁹³ Guochu Deng, Michel Kenzelmann, Sergey Danilkin, Andrew J. Studer, Vladimir Pomjakushin, Paolo Imperia, Ekaterina Pomjakushina, and Kazimierz Conder. Coexistence of long-range magnetic ordering and singlet ground state in the spin-ladder superconductor SrCa₁₃Cu₂₄O₄₁. *PHYSICAL REVIEW B*, 88(17), NOV 26 2013. doi: [10.1103/PhysRevB.88.174424](https://doi.org/10.1103/PhysRevB.88.174424).
- ⁹⁴ M. Bendele, C. Marini, B. Joseph, G. M. Pierantozzi, A. S. Caporale, A. Bianconi, E. Pomjakushina, K. Conder, A. Krzton-Maziopa, T. Irifune, T. Shinmei, S. Pascarelli, P. Dore, N. L. Saini, and P. Postorino. Interplay of electronic and lattice degrees of freedom in A(1-x)Fe(2-y)Se(2) superconductors under pressure. *PHYSICAL REVIEW B*, 88(18), NOV 12 2013. doi: [10.1103/PhysRevB.88.180506](https://doi.org/10.1103/PhysRevB.88.180506).

- ⁹⁵ M. Bendele, C. Marini, B. Joseph, L. Simonelli, P. Dore, S. Pascarelli, M. Chikovani, E. Pomjakushina, K. Conder, N. L. Saini, and P. Postorino. Dispersive x-ray absorption studies at the Fe K-edge on the iron chalcogenide superconductor FeSe under pressure. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 25(42), OCT 23 2013. doi:10.1088/0953-8984/25/42/425704.
- ⁹⁶ C. Monney, A. Uldry, K. J. Zhou, A. Krzton-Maziopa, E. Pomjakushina, V. N. Strocov, B. Delley, and T. Schmitt. Resonant inelastic x-ray scattering at the Fe L-3 edge of the one-dimensional chalcogenide BaFe₂Se₃. *PHYSICAL REVIEW B*, 88(16), OCT 3 2013. doi:10.1103/PhysRevB.88.165103.
- ⁹⁷ J. Maletz, V. B. Zabolotnyy, D. V. Evtushinsky, A. N. Yaresko, A. A. Kordyuk, Z. Shermadini, H. Luetkens, K. Sedlak, R. Khasanov, A. Amato, A. Krzton-Maziopa, K. Conder, E. Pomjakushina, H. H. Klauss, E. D. L. Rienks, B. Buechner, and S. V. Borisenko. Photoemission and muon spin relaxation spectroscopy of the iron-based Rb_{0.77}Fe_{1.61}Se₂ superconductor: Crucial role of the cigar-shaped Fermi surface. *PHYSICAL REVIEW B*, 88(13), OCT 3 2013. doi:10.1103/PhysRevB.88.134501.
- ⁹⁸ H. Saadaoui, T. Shiroka, A. Amato, C. Baines, H. Luetkens, E. Pomjakushina, V. Pomjakushin, J. Mesot, M. Pikulski, and E. Morenzoni. μ SR and NMR study of the superconducting Heusler compound YPd₂Sn. *PHYSICAL REVIEW B*, 88(9), SEP 26 2013. doi:10.1103/PhysRevB.88.094518.
- ⁹⁹ N. Xu, X. Shi, P. K. Biswas, C. E. Matt, R. S. Dhaka, Y. Huang, N. C. Plumb, M. Radovic, J. H. Dil, E. Pomjakushina, K. Conder, A. Amato, Z. Salman, D. McK. Paul, J. Mesot, H. Ding, and M. Shi. Surface and bulk electronic structure of the strongly correlated system SmB₆ and implications for a topological Kondo insulator. *PHYSICAL REVIEW B*, 88(12), SEP 10 2013. doi:10.1103/PhysRevB.88.121102.
- ¹⁰⁰ S. Gerber, J. L. Gavilano, M. Medarde, V. Pomjakushin, C. Baines, E. Pomjakushina, K. Conder, and M. Kenzelmann. Microscopic studies of the normal and superconducting state of Ca₃Ir₄Sn₁₃. *PHYSICAL REVIEW B*, 88(10), SEP 4 2013. doi:10.1103/PhysRevB.88.104505.
- ¹⁰¹ Sara Lafuerza, Joaquin Garcia, Gloria Subias, Javier Blasco, Kazimierz Conder, and Ekaterina Pomjakushina. Intrinsic electrical properties of LuFe₂O₄. *PHYSICAL REVIEW B*, 88(8), AUG 30 2013. doi:10.1103/PhysRevB.88.085130.
- ¹⁰² B. Mansart, M. J. G. Cottet, G. F. Mancini, T. Jarlborg, S. B. Dugdale, S. L. Johnson, S. O. Mariager, C. J. Milne, P. Beaud, S. Gruebel, J. A. Johnson, T. Kubacka, G. Ingold, K. Prsa, H. M. Ronnow, K. Conder, E. Pomjakushina, M. Chergui, and F. Carbone. Temperature-dependent electron-phonon coupling in La_{2-x}Sr_xCuO₄ probed by femtosecond x-ray diffraction. *PHYSICAL REVIEW B*, 88(5), AUG 19 2013. doi:10.1103/PhysRevB.88.054507.
- ¹⁰³ V. Svitlyk, D. Chernyshov, E. Pomjakushina, A. Krzton-Maziopa, K. Conder, V. Pomjakushin, R. Pottgen, and V. Dmitriev. Crystal structure of BaFe₂Se₃ as a function of temperature and pressure: phase transition phenomena and high-order expansion of Landau potential. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 25(31), AUG 7 2013. doi:10.1088/0953-8984/25/31/315403.
- ¹⁰⁴ G. Deng, N. Tsyulin, P. Bourges, D. Lamago, H. Ronnow, M. Kenzelmann, S. Danilkin, E. Pomjakushina, and K. Conder. Spin-gap evolution upon Ca doping in the spin-ladder series Sr_{14-x}Ca_xCu₂₄O₄₁ studied by inelastic neutron scattering. *PHYSICAL REVIEW B*, 88(1), JUL 3 2013. doi:10.1103/PhysRevB.88.014504.
- ¹⁰⁵ M. Medarde, M. Mena, J. L. Gavilano, E. Pomjakushina, J. Sugiyama, K. Kamazawa, V. Yu. Pomjakushin, D. Sheptyakov, B. Batlogg, H. R. Ott, M. Mansson, and F. Juranyi. 1D to 2D Na⁺ Ion Diffusion Inherently Linked to Structural Transitions in Na_{0.7}CoO₂. *PHYSICAL REVIEW LETTERS*, 110(26), JUN 26 2013. doi:10.1103/PhysRevLett.110.266401.
- ¹⁰⁶ J. A. Rodriguez, A. Yaouanc, B. Barbara, E. Pomjakushina, P. Quemerais, and Z. Salman. Muon diffusion and electronic magnetism in Y₂Ti₂O₇. *PHYSICAL REVIEW B*, 87(18), MAY 24 2013. doi:10.1103/PhysRevB.87.184427.
- ¹⁰⁷ P. K. Biswas, A. Krzton-Maziopa, R. Khasanov, H. Luetkens, E. Pomjakushina, K. Conder, and A. Amato. Two-Dimensional Superfluid Density in an Alkali Metal-Organic Solvent Intercalated Iron Selenide Superconductor Li(C₅H₅N)(_{0.2})Fe₂Se₂ (vol 110, 137003, 2013). *PHYSICAL REVIEW LETTERS*, 110(16), APR 15 2013. doi:10.1103/PhysRevLett.110.169902.
- ¹⁰⁸ P. K. Biswas, A. Krzton-Maziopa, R. Khasanov, H. Luetkens, E. Pomjakushina, K. Conder, and A. Amato. Two-Dimensional Superfluid Density in an Alkali Metal-Organic Solvent Intercalated Iron Selenide Superconductor Li_{0.2}(C₅H₅N)(_{0.2})Fe₂Se₂. *PHYSICAL REVIEW LETTERS*, 110(13), MAR 28 2013. doi:10.1103/PhysRevLett.110.137003.

- ¹⁰⁹ M. Kanagaraj, A. Krzton-Maziopa, G. Kalai Selvan, E. Pomjakushina, K. Conder, S. Weyeneth, R. Puzniak, and S. Arumugam. Effect of external pressure on T-c of as-grown and thermally treated superconducting RbxFe₂-ySe₂ single crystals. *PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS*, 7(3):218–220, MAR 2013. doi:10.1002/pssr.201206426.
- ¹¹⁰ M. Bendele, A. Maisuradze, B. Roessli, S. N. Gvasaliya, E. Pomjakushina, S. Weyeneth, K. Conder, H. Keller, and R. Khasanov. Pressure-induced ferromagnetism in antiferromagnetic Fe_{1.03}Te. *PHYSICAL REVIEW B*, 87(6), FEB 25 2013. doi:10.1103/PhysRevB.87.060409.
- ¹¹¹ A. Maisuradze, B. Graneli, Z. Guguchia, A. Shengelaya, E. Pomjakushina, K. Conder, and H. Keller. Effect of pressure on the Cu and Pr magnetism in Nd_{1-x}Pr_xBa₂Cu₃O_{7- δ} investigated by muon spin rotation. *PHYSICAL REVIEW B*, 87(5), FEB 1 2013. doi:10.1103/PhysRevB.87.054401.
- ¹¹² M. Matusiak, Z. Bukowski, J. Karpinski, E. Pomjakushina, and K. Conder. Influence of Dirac Fermions on Magnetothermoelectric Transport in Iron-Based Superconductors. In Zlatić, V and Hewson, A, editor, *NEW MATERIALS FOR THERMOELECTRIC APPLICATIONS: THEORY AND EXPERIMENT*, NATO Science for Peace and Security Series B-Physics and Biophysics, pages 199–205. NATO Sci Peace Program; European Science Fdn Network Interdisciplinary Approaches Funct Elect & Biol Mat; Int Inst Complex & Adapt Matter; Minist Sci Croatia; Inst Phys, 2013. NATO Advanced Research Workshop on New Materials for Thermoelectric Applications - Theory and Experiment, Hvar, CROATIA, SEP 19-25, 2011. doi:10.1007/978-94-007-4984-9\13.
- ¹¹³ Marcin Matusiak, Ekaterina Pomjakushina, and Kazimierz Conder. Magnetothermoelectric effects in Fe_{1+d}Te_{1-x}Se_x. *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*, 483:21–25, DEC 2012. doi:10.1016/j.physc.2012.08.006.
- ¹¹⁴ A. Krzton-Maziopa, E. Pomjakushina, and K. Conder. Single crystals of novel alkali metal intercalated iron chalcogenide superconductors. *JOURNAL OF CRYSTAL GROWTH*, 360(SI):155–157, DEC 1 2012. 5th International Workshop on Crystal Growth Technology (IWCGT), Berlin, GERMANY, JUN 26-30, 2011. doi:10.1016/j.jcrysgro.2012.01.016.
- ¹¹⁵ A. Bosak, V. Svitlyk, A. Krzton-Maziopa, E. Pomjakushina, K. Conder, V. Pomjakushin, A. Popov, D. de Sanctis, and D. Chernyshov. Phase coexistence in Cs_{0.8}Fe_{1.6}Se₂ as seen by x-ray mapping of reciprocal space. *PHYSICAL REVIEW B*, 86(17), NOV 12 2012. doi:10.1103/PhysRevB.86.174107.
- ¹¹⁶ V. Yu Pomjakushin, A. Krzton-Maziopa, E. V. Pomjakushina, K. Conder, D. Chernyshov, V. Svitlyk, and A. Bosak. Intrinsic crystal phase separation in the antiferromagnetic superconductor RbyFe₂-xSe₂: a diffraction study. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 24(43), OCT 31 2012. doi:10.1088/0953-8984/24/43/435701.
- ¹¹⁷ S. Weyeneth, M. Bendele, F. von Rohr, P. Dłuzewski, R. Puzniak, A. Krzton-Maziopa, S. Bosma, Z. Guguchia, R. Khasanov, Z. Shermadini, A. Amato, E. Pomjakushina, K. Conder, A. Schilling, and H. Keller. Superconductivity and magnetism in RbxFe₂-ySe₂: Impact of thermal treatment on mesoscopic phase separation. *PHYSICAL REVIEW B*, 86(13), OCT 25 2012. doi:10.1103/PhysRevB.86.134530.
- ¹¹⁸ A. E. Taylor, R. A. Ewings, T. G. Perring, J. S. White, P. Babkevich, A. Krzton-Maziopa, E. Pomjakushina, K. Conder, and A. T. Boothroyd. Spin-wave excitations and superconducting resonant mode in Cs_xFe₂-ySe₂. *PHYSICAL REVIEW B*, 86(9), SEP 28 2012. doi:10.1103/PhysRevB.86.094528.
- ¹¹⁹ A. Krzton-Maziopa, E. V. Pomjakushina, V. Yu Pomjakushin, F. von Rohr, A. Schilling, and K. Conder. Synthesis of a new alkali metal-organic solvent intercalated iron selenide superconductor with T-c approximate to 45 K. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 24(38), SEP 26 2012. doi:10.1088/0953-8984/24/38/382202.
- ¹²⁰ Guochu Deng, R. Thiyagarajan, D. Mohan Radheep, Ekaterina Pomjakushina, Marisa Medarde, Anna Krzton-Maziopa, Shuang Wang, S. Arumugam, and Kazimierz Conder. Floating zone crystal growth and magnetic properties of bilayer manganites Pr(Sr_{1-x}Cax)₍₂₎Mn₂O₇. *JOURNAL OF CRYSTAL GROWTH*, 353(1):25–30, AUG 15 2012. doi:10.1016/j.jcrysgro.2012.04.024.
- ¹²¹ J. Wieckowski, M. U. Gutowska, A. Szewczyk, S. Lewinska, K. Conder, E. Pomjakushina, V. P. Gnezdilov, and S. L. Gnatchenko. Thermal properties of layered cobaltites RBaCo₂O_{5.5} (R = Y, Gd, and Tb). *PHYSICAL REVIEW B*, 86(5), AUG 6 2012. doi:10.1103/PhysRevB.86.054404.
- ¹²² S. C. Speller, T. B. Britton, G. M. Hughes, A. Krzton-Maziopa, E. Pomjakushina, K. Conder, A. T. Boothroyd, and C. R. M. Grovenor. Microstructural analysis of phase separation in iron chalcogenide superconductors. *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*, 25(8), AUG 2012. doi:10.1088/0953-2048/25/8/084023.

- ¹²³ M. Bartkowiak, A. M. Mulders, V. Scagnoli, U. Staub, E. Pomjakushina, and K. Conder. Evolution of charge order through the magnetic phase transition of LuFe₂O₄. *PHYSICAL REVIEW B*, 86(3), JUL 13 2012. doi:10.1103/PhysRevB.86.035121.
- ¹²⁴ S. Muehlbauer, S. Gvasaliya, E. Ressouche, E. Pomjakushina, and A. Zheludev. Phase diagram of the Dzyaloshinskii-Moriya helimagnet Ba₂CuGe₂O₇ in canted magnetic fields. *PHYSICAL REVIEW B*, 86(2), JUL 13 2012. doi:10.1103/PhysRevB.86.024417.
- ¹²⁵ M. L. Reinle-Schmitt, C. Cancellieri, D. Li, D. Fontaine, M. Medarde, E. Pomjakushina, C. W. Schneider, S. Gariglio, Ph Ghosez, J-M. Triscone, and P. R. Willmott. Tunable conductivity threshold at polar oxide interfaces. *NATURE COMMUNICATIONS*, 3, JUL 2012. doi:10.1038/ncomms1936.
- ¹²⁶ Z. Shermadini, H. Luetkens, R. Khasanov, A. Krzton-Maziopa, K. Conder, E. Pomjakushina, H-H. Klaus, and A. Amato. Superconducting properties of single-crystalline A(x)Fe(2-y)Se(2) (A=Rb, K) studied using muon spin spectroscopy. *PHYSICAL REVIEW B*, 85(10), MAR 5 2012. doi:10.1103/PhysRevB.85.100501.
- ¹²⁷ M. Bendele, A. Ichsanow, Yu. Pashkevich, L. Keller, Th. Straessle, A. Gusev, E. Pomjakushina, K. Conder, R. Khasanov, and H. Keller. Coexistence of superconductivity and magnetism in FeSe_{1-x} under pressure. *PHYSICAL REVIEW B*, 85(6), FEB 15 2012. doi:10.1103/PhysRevB.85.064517.
- ¹²⁸ S. Bosma, R. Puzniak, A. Krzton-Maziopa, M. Bendele, E. Pomjakushina, K. Conder, H. Keller, and S. Weyeneth. Magnetic-field tuned anisotropy in superconducting RbxFe_{2-y}Se₂. *PHYSICAL REVIEW B*, 85(6), FEB 9 2012. doi:10.1103/PhysRevB.85.064509.
- ¹²⁹ A. Krzton-Maziopa, E. Pomjakushina, V. Pomjakushin, D. Sheptyakov, D. Chernyshov, V. Svitlyk, and K. Conder. The synthesis, and crystal and magnetic structure of the iron selenide BaFe₂Se₃ with possible superconductivity at T_c = 11 K (vol 23, 402201, 2011). *JOURNAL OF PHYSICS-CONDENSED MATTER*, 24(5), FEB 8 2012. doi:10.1088/0953-8984/24/5/059502.
- ¹³⁰ R. Sura, M. Ceretti, C. Prestipino, W. Paulus, J. Schefer, L. Keller, K. Conder, and E. Pomjakushina. Effect of Strontium doping on the Oxygen Diffusion in La_{2-x}Sr_xCuO₄ +/-delta samples Investigated by Oxygen Isotope Back Exchange. In *5TH EUROPEAN CONFERENCE ON NEUTRON SCATTERING*, volume 340 of *Journal of Physics Conference Series*. European Nucl Scattering Assoc, 2012. 5th European Conference on Neutron Scattering (ECNS), Prague, CZECH REPUBLIC, JUL 17-21, 2011. doi:10.1088/1742-6596/340/1/012110.
- ¹³¹ Alexei Bosak, Volodymir Svitlyk, Alexander Popov, Daniele de Sanctis, Ekaterina Pomjakushina, Vladimir Pomjakushin, Anna Krzton-Maziopa, Kazimierz Conder, and Dmitry Chernyshov. 3D mapping of reciprocal space and structural complexity of A(x)Fc(2-y)Se(2) superconductor (A = Rb, Cs). *ACTA CRYSTALLOGRAPHICA A-FOUNDATION AND ADVANCES*, 68(S):S187, 2012. doi:10.1107/S0108767312096389.
- ¹³² J. Schefer, M. Ceretti, L. Le Dreau, R. Sura, C. Prestipino, W. Paulus, L. Keller, K. Conder, E. Pomjakushina, and B. Pederson. Oxygen Diffusion and Structural and Properties in La_{2-x}Sr_xCuO_{4+d} and La₂CoO_{4+d}. *ACTA CRYSTALLOGRAPHICA A-FOUNDATION AND ADVANCES*, 68(S):S244, 2012. doi:10.1107/S0108767312095268.
- ¹³³ Mattia Allieta, Cesare Oliva, Marco Scavini, Serena Cappelli, Ekaterina Pomjakushina, and Valerio Scagnoli. Spin-lattice interaction in the insulator-to-metal transition of GdBaCo₂O_{5+delta}. *PHYSICAL REVIEW B*, 84(23), DEC 27 2011. doi:10.1103/PhysRevB.84.235144.
- ¹³⁴ V. Gnezdilov, Yu. G. Pashkevich, H. Berger, E. Pomjakushina, K. Conder, and P. Lemmens. Helical fluctuations in the Raman response of the topological insulator Bi₂Se₃. *PHYSICAL REVIEW B*, 84(19), NOV 22 2011. doi:10.1103/PhysRevB.84.195118.
- ¹³⁵ A. Maisuradze, A. Shengelaya, A. Amato, E. Pomjakushina, and H. Keller. Muon spin rotation investigation of the pressure effect on the magnetic penetration depth in YBa₂Cu₃O_x. *PHYSICAL REVIEW B*, 84(18), NOV 17 2011. doi:10.1103/PhysRevB.84.184523.
- ¹³⁶ S. Muehlbauer, S. N. Gvasaliya, E. Pomjakushina, and A. Zheludev. Double-k phase of the Dzyaloshinskii-Moriya helimagnet Ba₂CuGe₂O₇. *PHYSICAL REVIEW B*, 84(18), NOV 10 2011. doi:10.1103/PhysRevB.84.180406.
- ¹³⁷ V. Svitlyk, D. Chernyshov, E. Pomjakushina, A. Krzton-Maziopa, K. Conder, V. Pomjakushin, and V. Dmitriev. Temperature and Pressure Evolution of the Crystal Structure of A(x)(Fe_{1-y}Se)₂ (A = Cs, Rb, K) Studied by Synchrotron Powder Diffraction. *INORGANIC CHEMISTRY*, 50(21):10703-10708, NOV 7 2011. doi:10.1021/ic201160y.

- ¹³⁸ S. C. Speller, T. B. Britton, G. Hughes, S. Lozano-Perez, A. T. Boothroyd, E. Pomjakushina, K. Conder, and C. R. M. Grovenor. Analysis of local chemical and structural inhomogeneities in FeSe_{1-x}Te_x single crystals. *APPLIED PHYSICS LETTERS*, 99(19), NOV 7 2011. doi:10.1063/1.3659302.
- ¹³⁹ R. Thiyagarajan, Guochu Deng, S. Arumugam, D. Mohan Radheep, U. Devarajan, A. Murugeswari, P. Mandal, Ekaterina Pomjakushina, and Kazimierz Conder. Effect of magnetic field and pressure on charge-orbital ordering in Pr(Sr_{1-x}Ca_x)₂Mn₂O₇ (x=0.4 and 0.9) single crystals. *JOURNAL OF APPLIED PHYSICS*, 110(9), NOV 1 2011. doi:10.1063/1.3657848.
- ¹⁴⁰ B. M. Wojek, S. Weyeneth, S. Bosma, E. Pomjakushina, and R. Puzniak. Mixed state of La_{1.83}Sr_{0.17}CuO₄ studied by means of muon-spin rotation and magnetization experiments in a low magnetic field. *PHYSICAL REVIEW B*, 84(14), OCT 28 2011. doi:10.1103/PhysRevB.84.144521.
- ¹⁴¹ Guochu Deng, Vladimir Pomjakushin, Vaclev Petricek, Ekaterina Pomjakushina, Michel Kenzelmann, and Kazimierz Conder. Structural evolution of one-dimensional spin-ladder compounds Sr_{14-x}Ca_xCu₂₄O₄₁ with Ca doping and related evidence of hole redistribution. *PHYSICAL REVIEW B*, 84(14), OCT 17 2011. doi:10.1103/PhysRevB.84.144111.
- ¹⁴² A. Krzton-Maziopa, E. Pomjakushina, V. Pomjakushin, D. Sheptyakov, D. Chernyshov, V. Svitlyk, and K. Conder. The synthesis, and crystal and magnetic structure of the iron selenide BaFe₂Se₃ with possible superconductivity at T_c=11 K. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 23(40), OCT 12 2011. doi:10.1088/0953-8984/23/40/402201.
- ¹⁴³ A. M. Mulders, M. Bartkowiak, J. R. Hester, E. Pomjakushina, and K. Conder. Ferroelectric charge order stabilized by antiferromagnetism in multiferroic LuFe₂O₄. *PHYSICAL REVIEW B*, 84(14), OCT 3 2011. doi:10.1103/PhysRevB.84.140403.
- ¹⁴⁴ Guochu Deng, D. Mohan Radheep, R. Thiyagarajan, Ekaterina Pomjakushina, Shuang Wang, Neda Nikseresht, S. Arumugam, and Kazimierz Conder. High oxygen pressure single crystal growth of highly Ca-doped spin ladder compound Sr_{14-x}Ca_xCu₂₄O₄₁ (x \leq 12). *JOURNAL OF CRYSTAL GROWTH*, 327(1):182–188, JUL 15 2011. doi:10.1016/j.jcrysgro.2011.04.010.
- ¹⁴⁵ A. Furrer, E. Pomjakushina, V. Pomjakushin, J. P. Embs, and Th. Straessle. Ferromagnetic and antiferromagnetic dimer splittings in LaMn_{0.1}Ga_{0.9}O₃. *PHYSICAL REVIEW B*, 83(17), MAY 31 2011. doi:10.1103/PhysRevB.83.174442.
- ¹⁴⁶ P. Babkevich, B. Roessli, S. N. Gvasaliya, L. P. Regnault, P. G. Freeman, E. Pomjakushina, K. Conder, and A. T. Boothroyd. Spin anisotropy of the resonance peak in superconducting FeSe_{0.5}Te_{0.5}. *PHYSICAL REVIEW B*, 83(18), MAY 25 2011. doi:10.1103/PhysRevB.83.180506.
- ¹⁴⁷ G. Seyfarth, D. Jaccard, P. Pedrazzini, A. Krzton-Maziopa, E. Pomjakushina, K. Conder, and Z. Shermadini. Pressure cycle of superconducting Cs_{0.8}Fe₂Se₂: A transport study. *SOLID STATE COMMUNICATIONS*, 151(10):747–750, MAY 2011. doi:10.1016/j.ssc.2011.03.014.
- ¹⁴⁸ A. M. Balagurov, I. A. Bobrikov, V. Yu. Pomjakushin, E. V. Pomjakushina, D. V. Sheptyakov, and I. O. Troyanchuk. Low-temperature structural anomalies in Pr_{0.5}Sr_{0.5}CoO₃. *JETP LETTERS*, 93(5):263–268, MAY 2011. doi:10.1134/S0021364011050031.
- ¹⁴⁹ A. Podlesnyak, G. Ehlers, M. Frontzek, A. S. Sefat, A. Furrer, Th. Straessle, E. Pomjakushina, K. Conder, F. Demmel, and D. I. Khomskii. Effect of carrier doping on the formation and collapse of magnetic polarons in lightly hole-doped La_{1-x}Sr_xCoO₃. *PHYSICAL REVIEW B*, 83(13), APR 21 2011. doi:10.1103/PhysRevB.83.134430.
- ¹⁵⁰ V. Yu Pomjakushin, E. V. Pomjakushina, A. Krzton-Maziopa, K. Conder, and Z. Shermadini. Room temperature antiferromagnetic order in superconducting X_yFe_{2-x}Se₂ (X = Rb, K): a neutron powder diffraction study. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 23(15), APR 20 2011. doi:10.1088/0953-8984/23/15/156003.
- ¹⁵¹ V. Yu. Pomjakushin, D. V. Sheptyakov, E. V. Pomjakushina, A. Krzton-Maziopa, K. Conder, D. Chernyshov, V. Svitlyk, and Z. Shermadini. Iron-vacancy superstructure and possible room-temperature antiferromagnetic order in superconducting Cs_yFe_{2-x}Se₂. *PHYSICAL REVIEW B*, 83(14), APR 14 2011. doi:10.1103/PhysRevB.83.144410.
- ¹⁵² Marisa Medarde, Rainer Moormann, Ruggero Frison, Robert J. Puzniak, Ekaterina Pomjakushina, Kazimierz Conder, Ernestos Platacis, Yong Dai, Daniela Kiselev, Luca Zanini, Szabina Toeroek, Peter Zagyvai, Stephan Heinitz, Joerg Neuhausen, Dorothea Schumann, and Knud Thomsen. Lead-gold eutectic: An alternative liquid target material candidate for high power spallation neutron sources. *JOURNAL OF NUCLEAR MATERIALS*, 411(1-3):72–82, APR 2011. doi:10.1016/j.jnucmat.2011.01.034.

- ¹⁵³ Z. Shermadini, A. Krzton-Maziopa, M. Bendele, R. Khasanov, H. Luetkens, K. Conder, E. Pomjakushina, S. Weyeneth, V. Pomjakushin, O. Bossen, and A. Amato. Coexistence of Magnetism and Superconductivity in the Iron-Based Compound Cs-0.8(FeSe0.98)(2). *PHYSICAL REVIEW LETTERS*, 106(11), MAR 16 2011. doi:10.1103/PhysRevLett.106.117602.
- ¹⁵⁴ A. Krzton-Maziopa, Z. Shermadini, E. Pomjakushina, V. Pomjakushin, M. Bendele, A. Amato, R. Khasanov, H. Luetkens, and K. Conder. Synthesis and crystal growth of Cs-0.8(FeSe0.98)2: a new iron-based superconductor with T_c=27 K. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 23(5), FEB 9 2011. doi:10.1088/0953-8984/23/5/052203.
- ¹⁵⁵ Authors E. Kirk, A. Mustonen, E. Pomjakushina, S. Ritter, J. Gobrecht, and S. Tsujino. Smoother Mo films for Molded FEAs by addition of N-2 to Ar sputter gas. In Klumper, A, editor, *2011 24TH INTERNATIONAL VACUUM NANO-ELECTRONICS CONFERENCE (IVNC)*, pages 31–32. Bergische Univ Wuppertal; IEEE - Electron Device Soc (EDS); Gesellschaft Freunde Bergischen Univ (GFBU); Comp Simulat Technol AG (CST); Bruker Adv Supercon GmbH (BRUKER); Keyence Deutschland GmbH (KEYENCE), 2011. 24th International Vacuum Nanoelectronics Conference (IVNC), Wuppertal, GERMANY, JUL 18-22, 2011.
- ¹⁵⁶ V. Yu. Pomjakushin, D. V. Sheptyakov, E. V. Pomjakushina, A. Krzton-Maziopa, K. Conder, D. Chernyshov, V. Svitlyk, and Z. Shermadini. Iron vacancy superstructure and room temperature antiferromagnetic order in superconducting X_yFe_{2-x}Se₂ (X=K, Cs, Rb). *ACTA CRYSTALLOGRAPHICA A-FOUNDATION AND ADVANCES*, 67(S):C208, 2011. doi:10.1107/S0108767311094815.
- ¹⁵⁷ Ekaterina Pomjakushina, Anna Krzton-Maziopa, Kazimierz Conder, and Vladimir Pomjakushin. FeSe-based superconductors (11, 122-type): phase diagram, crystal growth and characterization. *ACTA CRYSTALLOGRAPHICA A-FOUNDATION AND ADVANCES*, 67(S):C455, 2011. doi:10.1107/S0108767311088532.
- ¹⁵⁸ V. Svitlyk, D. Chernyshov, E. Pomjakushina, A. Krzton-Maziopa, K. Conder, V. Pomjakushin, and V. Dmitriev. Temperature and pressure evolution of the crystal structure of A(x)(Fe_{1-y}Se)₂ (A = Cs, Rb, K) studied by synchrotron X-ray diffraction. *ACTA CRYSTALLOGRAPHICA A-FOUNDATION AND ADVANCES*, 67(S):C239, 2011. doi:10.1107/S0108767311094025.
- ¹⁵⁹ S. Wang, E. Pomjakushina, T. Shiroka, G. Deng, N. Nikseresht, Ch Rugg, H. M. Ronnow, and K. Conder. Crystal growth and characterization of the dilutable frustrated spin-ladder compound Bi(Cu_{1-x}Zn_x)₂PO₆. *JOURNAL OF CRYSTAL GROWTH*, 313(1):51–55, DEC 15 2010. doi:10.1016/j.jcrysgro.2010.09.074.
- ¹⁶⁰ M. Bendele, P. Babkevich, S. Katrych, S. N. Gvasaliya, E. Pomjakushina, K. Conder, B. Roessli, A. T. Boothroyd, R. Khasanov, and H. Keller. Tuning the superconducting and magnetic properties of Fe_ySe_{0.25}Te_{0.75} by varying the iron content. *PHYSICAL REVIEW B*, 82(21), DEC 7 2010. doi:10.1103/PhysRevB.82.212504.
- ¹⁶¹ M. Garcia-Fernandez, U. Staub, Y. Bodenthin, V. Pomjakushin, A. Mirone, J. Fernandez-Rodriguez, V. Scagnoli, A. M. Mulders, S. M. Lawrence, and E. Pomjakushina. Doping and temperature dependence of Mn 3d states in A-site ordered manganites. *PHYSICAL REVIEW B*, 82(23), DEC 6 2010. doi:10.1103/PhysRevB.82.235108.
- ¹⁶² F. Casola, T. Shiroka, S. Wang, K. Conder, E. Pomjakushina, J. Mesot, and H. R. Ott. Direct Observation of Impurity-Induced Magnetism in a Spin-1/2 Antiferromagnetic Heisenberg Two-Leg Spin Ladder. *PHYSICAL REVIEW LETTERS*, 105(6), AUG 4 2010. doi:10.1103/PhysRevLett.105.067203.
- ¹⁶³ R. Khasanov, M. Bendele, K. Conder, H. Keller, E. Pomjakushina, and V. Pomjakushin. Iron isotope effect on the superconducting transition temperature and the crystal structure of FeSe_{1-x}. *NEW JOURNAL OF PHYSICS*, 12, JUL 22 2010. doi:10.1088/1367-2630/12/7/073024.
- ¹⁶⁴ V. Baledent, B. Fauque, Y. Sidis, N. B. Christensen, S. Pailhes, K. Conder, E. Pomjakushina, J. Mesot, and P. Bourges. Two-Dimensional Orbital-Like Magnetic Order in the High-Temperature La_{2-x}Sr_xCuO₄ Superconductor. *PHYSICAL REVIEW LETTERS*, 105(2), JUL 7 2010. doi:10.1103/PhysRevLett.105.027004.
- ¹⁶⁵ A. Braun, B. S. Mun, Y. Sun, Z. Liu, O. Groening, R. Maeder, S. Erat, X. Zhang, S. S. Mao, E. Pomjakushina, K. Conder, and T. Graule. Correlation of conductivity and angle integrated valence band photoemission characteristics in single crystal iron perovskites for 300 K \leq T \leq 800 K: Comparison of surface and bulk sensitive methods. *JOURNAL OF ELECTRON SPECTROSCOPY*

- AND RELATED PHENOMENA*, 181(1, SI):56–62, JUL 2010. International Workshop on Strong Correlations and Angle-Resolved Photoemission Spectroscopy, Zurich, SWITZERLAND, JUL 19–24, 2009. [doi:10.1016/j.eispec.2010.05.024](https://doi.org/10.1016/j.eispec.2010.05.024).
- ¹⁶⁶ M. Bendele, S. Weyeneth, R. Puzniak, A. Maisuradze, E. Pomjakushina, K. Conder, V. Pomjakushin, H. Luetkens, S. Katrych, A. Wisniewski, R. Khasanov, and H. Keller. Anisotropic superconducting properties of single-crystalline FeSe_{0.5}Te_{0.5}. *PHYSICAL REVIEW B*, 81(22), JUN 28 2010. [doi:10.1103/PhysRevB.81.224520](https://doi.org/10.1103/PhysRevB.81.224520).
- ¹⁶⁷ P. Babkevich, M. Bendele, A. T. Boothroyd, K. Conder, S. N. Gvasaliya, R. Khasanov, E. Pomjakushina, and B. Roessli. Magnetic excitations of Fe_{1+y}SexTe_{1-x} in magnetic and superconductive phases. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 22(14), APR 14 2010. [doi:10.1088/0953-8984/22/14/142202](https://doi.org/10.1088/0953-8984/22/14/142202).
- ¹⁶⁸ V. Yu Pomjakushin, D. V. Sheptyakov, E. V. Pomjakushina, K. Conder, and A. M. Balagurov. Evidence for the strong effect of quenched correlated disorder on phase separation and magnetism in (La_{1-y}Pry)_{0.7}Ca_{0.3}MnO₃. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 22(11), MAR 24 2010. [doi:10.1088/0953-8984/22/11/115601](https://doi.org/10.1088/0953-8984/22/11/115601).
- ¹⁶⁹ M. Bendele, A. Amato, K. Conder, M. Elender, H. Keller, H. H. Klauss, H. Luetkens, E. Pomjakushina, A. Raselli, and R. Khasanov. Pressure Induced Static Magnetic Order in Superconducting FeSe_{1-x}. *PHYSICAL REVIEW LETTERS*, 104(8), FEB 26 2010. [doi:10.1103/PhysRevLett.104.087003](https://doi.org/10.1103/PhysRevLett.104.087003).
- ¹⁷⁰ R. Khasanov, M. Bendele, A. Amato, K. Conder, H. Keller, H. H. Klauss, H. Luetkens, and E. Pomjakushina. Evolution of Two-Gap Behavior of the Superconductor FeSe_{1-x}. *PHYSICAL REVIEW LETTERS*, 104(8), FEB 26 2010. [doi:10.1103/PhysRevLett.104.087004](https://doi.org/10.1103/PhysRevLett.104.087004).
- ¹⁷¹ B. P. Andreasson, M. Janousch, U. Staub, T. Todorova, B. Delley, G. I. Meijer, and E. Pomjakushina. Detecting oxygen vacancies in SrTiO₃ by 3d transition-metal tracer ions. *PHYSICAL REVIEW B*, 80(21), DEC 2009. [doi:10.1103/PhysRevB.80.212103](https://doi.org/10.1103/PhysRevB.80.212103).
- ¹⁷² R. Khasanov, M. Bendele, A. Amato, P. Babkevich, A. T. Boothroyd, A. Cervellino, K. Conder, S. N. Gvasaliya, H. Keller, H. H. Klauss, H. Luetkens, V. Pomjakushin, E. Pomjakushina, and B. Roessli. Coexistence of incommensurate magnetism and superconductivity in Fe_(1+y)SexTe_(1-x). *PHYSICAL REVIEW B*, 80(14), OCT 2009. [doi:10.1103/PhysRevB.80.140511](https://doi.org/10.1103/PhysRevB.80.140511).
- ¹⁷³ D. Chernyshov, G. Rozenberg, E. Greenberg, E. Pomyakushina, and V. Dmitriev. Pressure-Induced Insulator-to-Metal Transition in TbBaCo₂O_{5.48}. *PHYSICAL REVIEW LETTERS*, 103(12), SEP 18 2009. [doi:10.1103/PhysRevLett.103.125501](https://doi.org/10.1103/PhysRevLett.103.125501).
- ¹⁷⁴ M. Garcia-Fernandez, U. Staub, Y. Bodenthin, V. Scagnoli, V. Pomjakushin, S. W. Lovesey, A. Mirone, J. Herrero-Martin, C. Piamonteze, and E. Pomjakushina. Orbital Order at Mn and O Sites and Absence of Zener Polaron Formation in Manganites. *PHYSICAL REVIEW LETTERS*, 103(9), AUG 28 2009. [doi:10.1103/PhysRevLett.103.097205](https://doi.org/10.1103/PhysRevLett.103.097205).
- ¹⁷⁵ A. M. Mulders, S. M. Lawrence, U. Staub, M. Garcia-Fernandez, V. Scagnoli, C. Mazzoli, E. Pomjakushina, K. Conder, and Y. Wang. Direct Observation of Charge Order and an Orbital Glass State in Multiferroic LuFe₂O₄. *PHYSICAL REVIEW LETTERS*, 103(7), AUG 14 2009. [doi:10.1103/PhysRevLett.103.077602](https://doi.org/10.1103/PhysRevLett.103.077602).
- ¹⁷⁶ E. Pomjakushina, K. Conder, V. Pomjakushin, M. Bendele, and R. Khasanov. Synthesis, crystal structure, and chemical stability of the superconductor FeSe_{1-x}. *PHYSICAL REVIEW B*, 80(2), JUL 2009. [doi:10.1103/PhysRevB.80.024517](https://doi.org/10.1103/PhysRevB.80.024517).
- ¹⁷⁷ U. Staub, M. Garcia-Fernandez, Y. Bodenthin, V. Scagnoli, R. A. De Souza, M. Garganourakis, E. Pomjakushina, and K. Conder. Orbital and magnetic ordering in Pr_{1-x}CaxMnO₃ and Nd_{1-x}SrxMnO₃ manganites near half doping studied by resonant soft x-ray powder diffraction. *PHYSICAL REVIEW B*, 79(22), JUN 2009. [doi:10.1103/PhysRevB.79.224419](https://doi.org/10.1103/PhysRevB.79.224419).
- ¹⁷⁸ A. Jarry, H. Luetkens, Y. G. Pashkevich, M. Stingaciu, E. Pomjakushina, K. Conder, P. Lemmens, and H. H. Klaus. Magnetic properties of the layered cobaltite NdBaCo₂O_{5.50}. *PHYSICA B-CONDENSED MATTER*, 404(5-7):765–768, APR 15 2009. 11th International Conference on Muon Spin Rotation, Relaxation and Resonance, Tsukuba, JAPAN, JUL 21–25, 2008. [doi:10.1016/j.physb.2008.11.178](https://doi.org/10.1016/j.physb.2008.11.178).
- ¹⁷⁹ V. Bobrovskii, V. Kazantsev, A. Mirmelstein, N. Mushnikov, N. Proskurnina, V. Voronin, E. Pomjakushina, K. Conder, and A. Podlesnyak. Spontaneous and field-induced magnetic transitions in YBaCo₂O_{5.5}. *JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS*, 321(5):429–437, MAR 2009. [doi:10.1016/j.jmmm.2008.09.030](https://doi.org/10.1016/j.jmmm.2008.09.030).

- ¹⁸⁰ A. Maisuradze, A. Shengelaya, B. I. Kochelaev, E. Pomjakushina, K. Conder, H. Keller, and K. A. Mueller. Probing the Yb³⁺ spin relaxation in Y_{0.98}Yb_{0.02}Ba₂Cu₃O_x by electron paramagnetic resonance. *PHYSICAL REVIEW B*, 79(5), FEB 2009. doi:10.1103/PhysRevB.79.054519.
- ¹⁸¹ V. A. Ivanshin, I. N. Kurkin, and E. V. Pomjakushina. Electron paramagnetic resonance of Ce³⁺ and Nd³⁺ impurity ions in YBa₂Cu₃O_{6.13}. *PHYSICS OF THE SOLID STATE*, 51(2):322–326, FEB 2009. doi:10.1134/S1063783409020206.
- ¹⁸² A. Schilling, R. Dell’Amore, J. Karpinski, Z. Bukowski, M. Medarde, E. Pomjakushina, and K. A. Mueller. LaBaNiO₄: a Fermi glass. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 21(1), JAN 7 2009. doi:10.1088/0953-8984/21/1/015701.
- ¹⁸³ A. Alfonsov, E. Vavilova, V. Kataev, B. Buechner, A. Podlesnyak, M. Russina, A. Furrer, Th. Straessle, E. Pomjakushina, K. Conder, and D. I. Khomskii. Origin of a spin-state polaron in lightly hole doped LaCoO₃. In Kes, P and Jochemsen, R, editor, *25TH INTERNATIONAL CONFERENCE ON LOW TEMPERATURE PHYSICS (LT25), PART 4: QUANTUM PHASE TRANSITIONS AND MAGNETISM*, volume 150 of *Journal of Physics Conference Series*, 2009. 25th International Conference on Low Temperature Physics (LT25), Leiden Inst Phys, Kamerlingh Onnes Lab, Amsterdam, NETHERLANDS, AUG 06-13, 2008. doi:10.1088/1742-6596/150/4/042003.
- ¹⁸⁴ Vadim Sikolenko, Ekaterina Pomjakushina, Antonio Cervellino, and Anatoly Senyshyn. Neutron Diffraction Study of Magnetic Ordering in Ce(Mn(1-x)Fex)(₂)Ge-2. *ACTA CRYSTALLOGRAPHICA A-FOUNDATION AND ADVANCES*, 65(S):S218, 2009. doi:10.1107/S010876730909549X.
- ¹⁸⁵ A. Braun, J. Richter, A. S. Harvey, S. Erat, A. Infortuna, A. Frei, E. Pomjakushina, Bongjin S. Mun, P. Holtappels, U. Vogt, K. Conder, L. J. Gauckler, and T. Graule. Electron hole-phonon interaction, correlation of structure, and conductivity in single crystal La_{0.9}Sr_{0.1}FeO_{3-δ}. *APPLIED PHYSICS LETTERS*, 93(26), DEC 29 2008. doi:10.1063/1.3049614.
- ¹⁸⁶ A. Podlesnyak, M. Russina, A. Furrer, A. Alfonsov, E. Vavilova, V. Kataev, B. Buechner, Th. Straessle, E. Pomjakushina, K. Conder, and D. I. Khomskii. Spin-State Polarons in Lightly-Hole-Doped LaCoO₃. *PHYSICAL REVIEW LETTERS*, 101(24), DEC 12 2008. doi:10.1103/PhysRevLett.101.247603.
- ¹⁸⁷ Y. Kawasaki, J. L. Gavilano, B. Roessli, D. Andreica, Ch. Baines, E. Pomjakushina, K. Conder, and H. R. Ott. μ SR studies of CePd₂In at low temperatures. *JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS*, 69(12, SI):3149–3152, DEC 2008. 61st Yamada Conference on Spectroscopies in Novel Superconductors, Sendai, JAPAN, AUG 20-24, 2007. doi:10.1016/j.jpics.2008.06.046.
- ¹⁸⁸ R. Khasanov, K. Conder, E. Pomjakushina, A. Amato, C. Baines, Z. Bukowski, J. Karpinski, S. Katrych, H.-H. Klauss, H. Luetkens, A. Shengelaya, and N. D. Zhigadlo. Evidence of nodeless superconductivity in FeSe_{0.85} from a muon-spin-rotation study of the in-plane magnetic penetration depth. *PHYSICAL REVIEW B*, 78(22), DEC 2008. doi:10.1103/PhysRevB.78.220510.
- ¹⁸⁹ R. Khasanov, A. Shengelaya, D. Di Castro, E. Morenzoni, A. Maisuradze, I. M. Savic, K. Conder, E. Pomjakushina, A. Bussmann-Holder, and H. Keller. Oxygen isotope effects on the superconducting transition and magnetic states within the phase diagram of Y_{1-x}Pr_xBa₂Cu₃O_{7-δ}. *PHYSICAL REVIEW LETTERS*, 101(7), AUG 15 2008. doi:10.1103/PhysRevLett.101.077001.
- ¹⁹⁰ H. Luetkens, M. Stingaciu, Yu. G. Pashkevich, K. Conder, E. Pomjakushina, A. A. Gusev, K. V. Lamonova, P. Lemmens, and H. H. Klauss. Microscopic evidence of spin state order and spin state phase separation in layered cobaltites RBaCo(2)O(5.5) with R = Y, Tb, Dy, and Ho. *PHYSICAL REVIEW LETTERS*, 101(1), JUL 4 2008. doi:10.1103/PhysRevLett.101.017601.
- ¹⁹¹ D. Chernyshov, V. Dmitriev, E. Pomjakushina, K. Conder, M. Stingaciu, V. Pomjakushin, A. Podlesnyak, A. A. Taskin, and Y. Ando. Superstructure formation at the metal-insulator transition in RBaCo₂O_{5.5} (R=Nd,Tb) as seen from reciprocal space mapping. *PHYSICAL REVIEW B*, 78(2), JUL 2008. doi:10.1103/PhysRevB.78.024105.
- ¹⁹² C. Marini, E. Arcangeletti, D. Di Castro, L. Baldassarre, A. Perucchi, S. Lupi, L. Malavasi, L. Boeri, E. Pomjakushina, K. Conder, and P. Postorino. Optical properties of V_{1-x}Cr_xO(2) compounds under high pressure. *PHYSICAL REVIEW B*, 77(23), JUN 2008. doi:10.1103/PhysRevB.77.235111.
- ¹⁹³ K. Conder, M. Stingaciu, and E. Pomjakushina. Point defect chemistry of YBa₂Cu₃O_{6.5+δ}. *MATERIALS RESEARCH BULLETIN*, 43(5):1195–1202, MAY 6 2008. doi:10.1016/j.materresbull.2007.05.033.

- ¹⁹⁴ L. S. Smirnov, K. Wozniak, P. Dominiak, A. Loose, I. Natkaniec, M. V. Frontasyeva, E. V. Pomyakushina, A. I. Baranov, and V. V. Dolbinina. Refinement of the crystal structure of $[\text{Rb-x}(\text{NH}_4)(1-x)](3)\text{H}(\text{SO}_4)(2)$ ($x=0.11$) by single-crystal X-ray and neutron diffraction: I. phase II at 300 K. *CRYSTALLOGRAPHY REPORTS*, 53(3):418–427, MAY-JUN 2008. doi:10.1134/S1063774508030097.
- ¹⁹⁵ Sergei N. Barilo, Sergei V. Shiryaev, Georgii L. Bychkov, Anatoly S. Shestak, Wendy R. Flavell, Andrew G. Thomas, Hafiz M. Rafique, Yury P. Chernenkov, Vladimir P. Plakhty, Ekaterina Pomjakushina, Kazimierz Conder, and Peter Allenspach. Large single crystals of $\text{LnBaCo}(2)\text{O}(5.5)$: Initial nucleation, growth and study. *JOURNAL OF CRYSTAL GROWTH*, 310(7-9, SI):1867–1874, APR 2008. 15th International Conference on Crystal Growth, Salt Lake City, UT, AUG 12-17, 2007. doi:10.1016/j.jcrysgro.2007.11.015.
- ¹⁹⁶ M. Stingaciu, E. Pomjakushina, H. Grimmer, M. Trottman, and K. Conder. Crystal growth of $\text{Tb}_{0.9}\text{Dy}_{0.1}\text{BaCO}_2\text{O}_{5+\delta}$ using travelling solvent floating zone method. *JOURNAL OF CRYSTAL GROWTH*, 310(6):1239–1244, MAR 15 2008. doi:10.1016/j.jcrysgro.2007.12.036.
- ¹⁹⁷ R. Khasanov, S. Straessle, K. Conder, E. Pomjakushina, A. Bussmann-Holder, and H. Keller. Universal correlations of isotope effects in $\text{Y}_{1-x}\text{Pr}_x\text{Ba}_2\text{Cu}_3\text{O}_{7-\delta}$. *PHYSICAL REVIEW B*, 77(10), MAR 2008. doi:10.1103/PhysRevB.77.104530.
- ¹⁹⁸ M. Garcia-Fernandez, U. Staub, Y. Bodenthin, S. M. Lawrence, A. M. Mulders, C. E. Buckley, S. Weyeneth, E. Pomjakushina, and K. Conder. Resonant soft x-ray powder diffraction study to determine the orbital ordering in A-site-ordered $\text{SmBaMn}(2)\text{O}(6)$. *PHYSICAL REVIEW B*, 77(6), FEB 2008. doi:10.1103/PhysRevB.77.060402.
- ¹⁹⁹ Dmitry Chernyshov, Ekaterina Pomjakushina, Vladimir Pomjakushin, and Vladimir Dmitriev. Superstructures in $\text{RBaCo}_2\text{O}_{5.5}$ ($R=\text{Nd, Tb}$) as seen from reciprocal space mapping. *ACTA CRYSTALLOGRAPHICA A-FOUNDATION AND ADVANCES*, 64(S):C518–C519, 2008. doi:10.1107/S0108767308083347.
- ²⁰⁰ Vladimir Yu. Pomjakushin, Albert Furrer, Ekaterina V. Pomjakushina, Denis V. Sheptyakov, and Kazimierz Conder. Crystal and magnetic structure of quantum spin-trimer compounds $\text{Ca}(3)\text{Cu}(3-x)\text{Ni}(x)(\text{PO}_4)(4)$. *ACTA CRYSTALLOGRAPHICA A-FOUNDATION AND ADVANCES*, 64(S):C471–C472, 2008. doi:10.1107/S0108767308084857.
- ²⁰¹ Ekaterina V. Pomjakushina, Kazimierz Conder, Marian Stingaciu, and Andrey Podlesnyak. Layered and cubic cobaltites grown by floating zone, structural and magnetic properties study. *ACTA CRYSTALLOGRAPHICA A-FOUNDATION AND ADVANCES*, 64(S):C33–C34, 2008. doi:10.1107/S0108767308098954.
- ²⁰² V. Yu. Pomjakushin, A. Furrer, D. V. Sheptyakov, E. V. Pomjakushina, and K. Conder. Crystal and magnetic structures of the spin-trimer compounds $\text{Ca}(3)\text{Cu}(3-x)\text{Ni}(x)(\text{PO}_4)(4)$ ($x=0,1,2$). *PHYSICAL REVIEW B*, 76(17), NOV 2007. doi:10.1103/PhysRevB.76.174433.
- ²⁰³ S. B. C. Duval, P. Holtappels, U. F. Vogt, E. Pomjakushina, K. Conder, U. Stimming, and T. Graule. Electrical conductivity of the proton conductor $\text{BaZr}_{0.9}\text{Y}_{0.1}\text{O}_{3-\delta}$ obtained by high temperature annealing. *SOLID STATE IONICS*, 178(25-26):1437–1441, OCT 2007. doi:10.1016/j.ssi.2007.08.006.
- ²⁰⁴ A. Podlesnyak, A. Karkin, K. Conder, E. Pomjakushina, M. Stingaciu, and P. Allenspach. Magnetic and electric transport properties of $\text{TbBaCo}_2\text{O}_{5.5}$ single crystal. *JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS*, 316(2):E710–E712, SEP 2007. Joint European Magnetic Symposia (JEMS 06), San Sebastian, SPAIN, JUN 26-29, 2006. doi:10.1016/j.jmmm.2007.03.068.
- ²⁰⁵ S. Straessle, J. Roos, M. Mali, K. Conder, E. Pomjakushina, and H. Keller. La-139 NMR and NQR investigations of the superconductor $\text{LaBa}_2\text{Cu}_3\text{O}_{7-\delta}$. *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*, 460(2):890–891, SEP 1 2007. 8th International Conference on Materials and Mechanisms of Superconductivity and High Temperature Superconductors, Dresden, GERMANY, JUL 09-14, 2006. doi:10.1016/j.physc.2007.03.182.
- ²⁰⁶ A. Podlesnyak, V. Pomjakushin, E. Pomjakushina, K. Conder, and A. Furrer. Magnetic excitations in the spin-trimer compounds $\text{Ca}_3\text{Cu}_{3-x}\text{Ni}_x(\text{PO}_4)(4)$ ($x=0,1,2$). *PHYSICAL REVIEW B*, 76(6), AUG 2007. doi:10.1103/PhysRevB.76.064420.
- ²⁰⁷ T. Lancaster, S. J. Blundell, D. Andreica, M. Janoschek, B. Roessli, S. N. Gvasaliya, K. Conder, E. Pomjakushina, M. L. Brooks, P. J. Baker, D. Prabhakaran, W. Hayes, and F. L. Pratt. Magnetism in geometrically frustrated YMnO_3 under hydrostatic pressure studied with muon spin relaxation. *PHYSICAL REVIEW LETTERS*, 98(19), MAY 11 2007. doi:10.1103/PhysRevLett.98.197203.

- ²⁰⁸ K. Conder, A. Podlesnyak, E. Pomjakushina, V. Pomjakushin, M. Stingaciu, and A. E. Karkin. Transport properties and oxygen isotope effect in layered cobaltites $\text{RBaCo}_2\text{O}_{5+x}$. *JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS*, 310(2, 1):907–909, MAR 2007. 17th International Conference on Magnetism (ICM 2006), Kyoto, JAPAN, AUG 20-25, 2006. doi:10.1016/j.jmmm.2006.10.487.
- ²⁰⁹ A. Podlesnyak, K. Conder, E. Pomjakushina, A. Mirmelstein, P. Allenspach, and D. I. Khomski. Effect of light Sr doping on the spin-state transition in LaCoO_3 . *JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS*, 310(2, 2):1552–1554, MAR 2007. 17th International Conference on Magnetism (ICM 2006), Kyoto, JAPAN, AUG 20-25, 2006. doi:10.1016/j.jmmm.2006.10.901.
- ²¹⁰ H. Luetkens, M. Stingaciu, Y. G. Pashkevich, P. Lemmens, E. Pomjakushina, K. Conder, and H.-H. Klauss. Oxygen isotope effect on the AFM-FM phase transition of the layered cobaltite $\text{HoBaCo}_2\text{O}_{5.47}$. *JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS*, 310(2, 2):1566–1568, MAR 2007. 17th International Conference on Magnetism (ICM 2006), Kyoto, JAPAN, AUG 20-25, 2006. doi:10.1016/j.jmmm.2006.10.596.
- ²¹¹ R. Khasanov, A. Shengelaya, D. Di Castro, D. G. Eshchenko, I. M. Savic, K. Conder, E. Pomjakushina, J. Karpinski, S. Kazakov, and H. Keller. Magnetic-field dependence of the oxygen isotope effect on the magnetic penetration depth of hole-doped cuprate superconductors. *PHYSICAL REVIEW B*, 75(6), FEB 2007. doi:10.1103/PhysRevB.75.060505.
- ²¹² V. Yu. Pomjakushin, D. V. Sheptyakov, K. Conder, E. V. Pomjakushina, and A. M. Balagurov. Effect of oxygen isotope substitution and crystal microstructure on magnetic ordering and phase separation in $(\text{La}_{1-y}\text{Pr}_y)(0.7)\text{Ca}_{0.3}\text{MnO}_3$. *PHYSICAL REVIEW B*, 75(5), FEB 2007. doi:10.1103/PhysRevB.75.054410.
- ²¹³ K. Conder, A. Podlesnyak, E. Pomjakushina, and M. Stingaciu. Layered cobaltites: Synthesis, oxygen nonstoichiometry, transport and magnetic properties. *ACTA PHYSICA POLONICA A*, 111(1):7–14, JAN 2007. Symposium on Complex Oxide Materials for New Technologies held at the 2006 E-MRS Fall Meeting, Warsaw, POLAND, SEP 04-08, 2006. doi:10.12693/APhysPolA.111.7.
- ²¹⁴ P. S. Haffiger, A. Podlesnyak, K. Conder, E. Pomjakushina, and A. Furrer. The pseudogap in LSCO-type high-temperature superconductors as seen by neutron crystal-field spectroscopy. *PROGRESS IN SOLID STATE CHEMISTRY*, 35(2-4, SI):415–420, 2007. International Conference on Perovskites Properties and Potential Applications, Dubendorf, SWITZERLAND, 2005. doi:10.1016/j.progsolidstchem.2007.03.002.
- ²¹⁵ A. Podlesnyak, S. Streule, J. Mesot, M. Medarde, E. Pomjakushina, K. Conder, A. Tanaka, M. W. Haverkort, and D. I. Khomskii. Spin-state transition in LaCoO_3 : Direct neutron spectroscopic evidence of excited magnetic states. *PHYSICAL REVIEW LETTERS*, 97(24), DEC 15 2006. doi:10.1103/PhysRevLett.97.247208.
- ²¹⁶ Petra S. Haefliger, Andrew Podlesnyak, Kazimierz Conder, Ekaterina Pomjakushina, and Albert Furrer. Pseudogap of the high-temperature superconductor $\text{La}_{1.96-x}\text{Sr}_x\text{Ho}_{0.04}\text{CuO}_4$ as observed by neutron crystal-field spectroscopy. *PHYSICAL REVIEW B*, 74(18), NOV 2006. doi:10.1103/PhysRevB.74.184520.
- ²¹⁷ S. N. Bushmeleva, V. Yu. Pomjakushin, E. V. Pomjakushina, D. V. Sheptyakov, and A. M. Balagurov. Evidence for the band ferromagnetism in SrRuO_3 from neutron diffraction. *JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS*, 305(2):491–496, OCT 2006. doi:10.1016/j.jmmm.2006.02.089.
- ²¹⁸ S. Streule, A. Podlesnyak, E. Pomjakushina, K. Conder, D. Sheptyakov, M. Medarde, and J. Mesot. Oxygen order-disorder phase transition in $\text{PrBaCo}_2\text{O}_{5.48}$ at high temperature. *PHYSICA B-CONDENSED MATTER*, 378-80:539–540, MAY 1 2006. International Conference on Strongly Correlated Electron Systems (SECES 05), Vienna, AUSTRIA, JUL 26-30, 2005. doi:10.1016/j.physb.2006.01.244.
- ²¹⁹ V. Sikolenko, E. Pomjakushina, U. Zimmermann, and A. Gribov. μ SR and neutron diffraction studies of $\text{U}(\text{Ni}_x\text{Cu}_{1-x})_2\text{Si}_2$ magnetic structure. *PHYSICA B-CONDENSED MATTER*, 374:171–173, MAR 31 2006. 10th International Conference on Muon Spin Rotation, Relaxation and Resonance, Oxford Univ, St Annes Coll, Dept Phys, Oxford, ENGLAND, AUG 08-12, 2005. doi:10.1016/j.physb.2005.11.045.
- ²²⁰ E. Pomjakushina, K. Conder, and V. Pomjakushin. Orbital order-disorder transition with volume collapse in $\text{HoBaCo}_2\text{O}_{5.5}$: A high-resolution neutron diffraction study. *PHYSICAL REVIEW B*, 73(11), MAR 2006. doi:10.1103/PhysRevB.73.113105.
- ²²¹ S. Streule, A. Podlesnyak, D. Sheptyakov, E. Pomjakushina, M. Stingaciu, K. Conder, M. Medarde, MV Patrakeev, IA Leonidov, VL Kozhevnikov, and J. Mesot. High-temperature order-disorder tran-

- sition and polaronic conductivity in PrBaCo₂O_{5.48}. *PHYSICAL REVIEW B*, 73(9), MAR 2006. doi:10.1103/PhysRevB.73.094203.
- ²²² M Medarde, C Dallera, M Grioni, J Voigt, A Podlesnyak, E Pomjakushina, K Conder, T Neisius, O Tjernberg, and SN Barilo. Low-temperature spin-state transition in LaCoO₃ investigated using resonant x-ray absorption at the CoK edge. *PHYSICAL REVIEW B*, 73(5), FEB 2006. doi:10.1103/PhysRevB.73.054424.
- ²²³ S Streule, M Medarde, A Podlesnyak, E Pomjakushina, K Conder, S Kazakov, J Karpinski, and J Mesot. Short-range charge ordering in Ho_{0.1}Sr_{0.9}CoO_{3-x} (0.15 ≤ x ≤ 0.49). *PHYSICAL REVIEW B*, 73(2), JAN 2006. doi:10.1103/PhysRevB.73.024423.
- ²²⁴ M Janoschek, B Roessli, L Keller, SN Gvasaliya, K Conder, and E Pomjakushina. Reduction of the ordered magnetic moment in YMnO₃ with hydrostatic pressure. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 17(42):L425–L430, OCT 26 2005. doi:10.1088/0953-8984/17/42/L01.
- ²²⁵ K Conder, E Pomjakushina, V Pomjakushin, M Stingaciu, S Streule, and A Podlesnyak. Oxygen isotope effect on metal-insulator transition in layered cobaltites RBaCo₂O_{5.5} (R = Pr, Dy, Ho and Y). *JOURNAL OF PHYSICS-CONDENSED MATTER*, 17(37):5813–5820, SEP 21 2005. doi:10.1088/0953-8984/17/37/016.
- ²²⁶ S Streule, A Podlesnyak, J Mesot, M Medarde, K Conder, E Pomjakushina, E Mitberg, and V Kozhevnikov. Effect of oxygen ordering on the structural and magnetic properties of the layered perovskites PrBaCo₂O_{5+δ}. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 17(21):3317–3324, JUN 1 2005. doi:10.1088/0953-8984/17/21/024.
- ²²⁷ VP Plakhty, YP Chernenkov, SN Barilo, A Podlesnyak, E Pomjakushina, EV Moskvina, and SV Gavrilov. Spin structure and magnetic phase transitions in TbBaCo₂O_{5.5}. *PHYSICAL REVIEW B*, 71(21), JUN 2005. doi:10.1103/PhysRevB.71.214407.
- ²²⁸ A Podlesnyak, S Streule, M Medarde, K Conder, E Pomjakushina, and J Mesot. Effect of oxygen non-stoichiometry on structural and magnetic properties of PrBaCO₂O_{5+δ}. *PHYSICA B-CONDENSED MATTER*, 359:1348–1350, APR 30 2005. International Conference on Strongly Correlated Electron Systems (SCES 04), Karlsruhe, GERMANY, JUL 26-30, 2004. doi:10.1016/j.physb.2005.01.407.
- ²²⁹ GL Bychkov, SV Shiryaev, AG Soldatov, AS Shestak, SN Barilo, DV Sheptyakov, K Conder, E Pomjakushina, A Podlesnyak, A Furrer, and R Bruetsch. Crystal growth features and properties of layered rare earth and barium cobaltates. *CRYSTAL RESEARCH AND TECHNOLOGY*, 40(4-5):395–399, APR 2005. 4th International Conference on Solid State Crystals/7th Polish Conference on Crystal Growth, Zakopane Koscielisko, POLAND, MAY 16-20, 2004. doi:10.1002/crat.200410356.
- ²³⁰ K Conder, E Pomjakushina, A Soldatov, and E Mitberg. Oxygen content determination in perovskite-type cobaltates. *MATERIALS RESEARCH BULLETIN*, 40(2):257–263, FEB 15 2005. doi:10.1016/j.materresbull.2004.10.009.
- ²³¹ B Roessli, SN Gvasaliya, E Pomjakushina, and K Conder. Spin fluctuations in the stacked-triangular antiferromagnet YMnO₃. *JETP LETTERS*, 81(6):287–291, 2005. doi:10.1134/1.1931017.
- ²³² VV Sikolenko, AP Sazonov, IO Troyanchuk, D Tobbens, U Zimmermann, EV Pomjakushina, and H Szymczak. Magnetic properties of La_{1-x}Sr_xCoO₃ (x=0.15 and 0.3). *JOURNAL OF PHYSICS-CONDENSED MATTER*, 16(41):7313–7320, OCT 20 2004. doi:10.1088/0953-8984/16/41/012.
- ²³³ T Schneider, R Khasanov, K Conder, E Pomjakushina, R Bruetsch, and H Keller. Evidence for charged critical fluctuations in underdoped YBa₂Cu₃O_{7-δ}. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 16(41):L437–L442, OCT 20 2004. doi:10.1088/0953-8984/16/41/L02.
- ²³⁴ PS Haffiger, A Podlesnyak, K Conder, E Pomjakushina, and A Furrer. Observation of the pseudogap in the heavily overdoped high-temperature superconductor La_{1.71}Sr_{0.25}Ho_{0.04}CuO₄. *EUROPHYSICS LETTERS*, 67(6):1018–1023, SEP 2004. doi:10.1209/epl/i2004-10199-0.
- ²³⁵ V. V. Sikolenko, E. V. Pomjakushina, V. Yu. Pomjakushin, A. V. Gribanov, U. Zimmermann, A. Kurbakov, D. P. Kozlenko, I. N. Goncharenko, and A. M. Balagurov. Modulated spin-density waves in uranium intermetallic compounds with ThCr₂Si₂ structure. *PHYSICA B-CONDENSED MATTER*, 350(1-3, 1):E163–E166, JUL 15 2004. doi:10.1016/j.physb.2004.03.043.
- ²³⁶ NY Tsibakhashvili, LM Mosulishvili, TL Kalabegishvili, EI Kirkesali, MV Frontasyeva, EV Pomyakushina, SS Pavlov, and HYN Holman. ENAA studies of chromium uptake by *Arthrobacter oxydans*. *JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY*, 259(3):527–531, 2004. doi:10.1023/B:JRNC.0000020931.85014.42.

- ²³⁷ VV Sikolenko, DP Kozlenko, EV Pomjakushina, VY Pomjakushin, AM Balagurov, L Keller, VP Glazkov, AV Griбанov, IN Goncharenko, and BN Savenko. Structural study of $U(Pd_{1-x}Fex)_2Ge_2$ at high pressure. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 15(17):2825–2832, MAY 7 2003. doi: [10.1088/0953-8984/15/17/331](https://doi.org/10.1088/0953-8984/15/17/331).
- ²³⁸ VV Sikolenko, EV Pomjakushina, and SY Istomin. Neutron diffraction studies of $La_{1-x}Sr_xCoO_3$ magnetic structure at $x=0.15$ and 0.3 . *JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS*, 258(SI):300–301, MAR 2003. 2nd Moscow International Symposium on Magnetism (MISM 2001), MOSCOW STATE UNIV, MOSCOW, RUSSIA, JUN 20-24, 2001. doi: [10.1016/S0304-8853\(02\)01145-9](https://doi.org/10.1016/S0304-8853(02)01145-9).
- ²³⁹ VY Pomjakushin, AM Balagurov, EV Raspopina, VV Sikolenko, AV Griбанov, A Schenck, A Amato, U Zimmermann, and IS Lyubutin. Modulated magnetic structure of $U(Pd_{1-x}Fex)_2Ge_2$ studied by μ SR. *JOURNAL OF PHYSICS-CONDENSED MATTER*, 12(36):7969–7981, SEP 11 2000. doi: [10.1088/0953-8984/12/36/311](https://doi.org/10.1088/0953-8984/12/36/311).
- ²⁴⁰ EV Raspopina, AM Balagurov, VY Pomjakushin, VV Sikolenko, AV Griбанov, A Amato, and A Schenck. Magnetic structure of $U(Pd_{1-x}Fex)_2Ge_2$ studied by μ SR: comparison with neutron diffraction data. *PHYSICA B*, 289:282–285, AUG 2000. 8th International Conference on Muon Spin Rotation, Relaxation and Resonance, LES DIABLERETS, SWITZERLAND, AUG 30-SEP 03, 1999. doi: [10.1016/S0921-4526\(00\)00393-8](https://doi.org/10.1016/S0921-4526(00)00393-8).
- ²⁴¹ AM Balagurov, EV Raspopina, VV Sikolenko, IS Lyubutin, AS Stepin, AV Griбанov, G Andre, F Bouree, and HM Duh. Neutron diffraction study of the $U(Pd_{1-x}Fex)_2Ge_2$ magnetic structure. *JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS*, 210(1-3):225–232, FEB 2000. doi: [10.1016/S0304-8853\(99\)00610-1](https://doi.org/10.1016/S0304-8853(99)00610-1).
- ²⁴² AV Sermyagin, NV Vuong, EV Raspopina, and SI Kozlov. On the possibility of observing secondary quantization effects in $YBa_2Cu_3O_{7-\delta}$ ceramic based RF-SQUIDS. *JOURNAL OF LOW TEMPERATURE PHYSICS*, 106(3-4):545–550, FEB 1997. International Weak Superconductivity Symposium (WSS), SMOLENICE CASTLE, SLOVAK REPUBLIC, AUG 04-07, 1996. doi: [10.1007/BF02399666](https://doi.org/10.1007/BF02399666).
- ²⁴³ BV VASILIEV, NV VUONG, EV RASPOPINA, and AV SERMYAGIN. DEGRADATION OF $YBa_2Cu_3O_{7-\delta}$ THICK-FILMS PREPARED ON Y_2BACuO_5 SUBSTRATES BY THE PAINT-ON METHOD AND ITS USE IN FORMING ONE-HOLE RF-SQUIDS. *PHYSICA C*, 250(1-2):1–6, AUG 1 1995. doi: [10.1016/0921-4534\(95\)00273-1](https://doi.org/10.1016/0921-4534(95)00273-1).
- ²⁴⁴ NV VUONG, EV RASPOPINA, VV SCUGAR, NM VLADIMIROVA, NA YAKOVENKO, and IA STEPANOVA. PINNING CENTERS IN $YBa_2Cu_3O_{7-\delta}$ THICK-FILMS PREPARED ON Y_2BACuO_5 SUBSTRATES BY THE PAINTING-ON METHOD. *PHYSICA C*, 233(3-4):263–272, NOV 20 1994. doi: [10.1016/0921-4534\(94\)90752-8](https://doi.org/10.1016/0921-4534(94)90752-8).
- ²⁴⁵ BV VASILIEV, NV VUONG, EV RASPOPINA, and AV SERMYAGIN. DEGRADATION OF $YBa_2Cu_3O_{7-\delta}$ THICK FILMS PREPARED BY Y_2BACuO_5 -SUBSTRATES BY THE PAINT-ON METHOD AND ITS USE IN FORMING ONE-HOLE RF-SQUIDS. In Benacka, S and Seidel, P and Strbik, V, editor, *PROCEEDINGS OF THE SEVENTH INTERNATIONAL SYMPOSIUM ON WEAK SUPERCONDUCTIVITY*, pages 354–359. SLOVAK ACAD SCI BRATISLAVA, INST ELECT ENGN; FRIEDRICH SCHILLER UNIV JENA, INST SOLID STATE PHYS, 1994. 17th International Symposium on Weak Superconductivity, SMOLENICE CASTLE, SLOVAK REPUBLIC, JUN 06-10, 1994.
- ²⁴⁶ NV VUONG, EV RASPOPINA, and BT HUY. THICK-FILMS OF $YBa_2Cu_3O_{7-\delta}$ PREPARED ON Y_2BACuO_5 SUBSTRATES. *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*, 6(7):453–459, JUL 1993. doi: [10.1088/0953-2048/6/7/001](https://doi.org/10.1088/0953-2048/6/7/001).