

Recent publications:

Alois Loidl (2024 - 2018)

Updated: November 2024

/844/ *Crystal melting influenced by particle cooperativity of the liquid*

P. Lunkenheimer, K. Samwer, and A. Loidl
Phys. Rev. B **111**, 134110/1-9 (2024).

/843/ *Experimental observation of repulsively bound magnons*

Zhe Wang, Catalin-Mihai Halati, Jean-Sébastien Bernier, Alexey Ponomaryov, Denis I. Gorbunov, Sandra Niesen, Oliver Breunig, J. Michael Klopff, Sergei Zvyagin, Thomas Lorenz, Alois Loidl, and Corinna Kollath
Nature **631**, 760-764 (2024).

/842/ *Magnetism of CuCr_2X_4 ($X = \text{S}$ and Se) spinels studied with muon spin rotation and relaxation*

Elaheh Sadrollahi, F. Jochen Litterst, Lilian Prodan, Vladimir Tsurkan, and Alois Loidl
Phys. Rev. B **110**, 054439/1-11 (2024).

/841/ *Ab initio modeling of phonons in the family of quasi-one-dimensional antiferromagnets AFeX_2*

Airat Kiiamov, Maxim Kuznetsov, Vladimir Tsurkan, Dorina Croitori, Hans-Albrecht Krug von Nidda, Zakir Seidov, Franz Mayr, Mamoun Hemmida, Sebastian Widmann, Axel Günther, Alois Loidl, Dmitrii A. Tayurskii, and Lenar R. Tagirov
in “Phonons - Recent Advances, New Perspectives and Applications”, (Ji Deng, Edt.) Intech Open (2024).

/840/ *THz spectroscopy on the amino acids L-serine and L-cysteine*

S. Emmert, P. Lunkenheimer, and A. Loidl
J. Chem. Phys. **160** (14), 145103/1-14 (2024).

/839/ *Ionic conductivity of a lithium-doped deep eutectic solvent: Glass formation and rotation–translation coupling*

Arthur Schulz, Peter Lunkenheimer, and Alois Loidl
J. Phys. Chem. B **128**, 3454–62 (2024).

/838/ *Pressure-induced changes in the crystal structure and electrical conductivity of GeV_4S_8*

Yuejian Wang, Zhiwei Shen, Dongzhou Zhang, Lin Wang, Vladimir Tsurkan, Lilian Prodan, Alois Loidl, Bishal B. Dumre, and Sanjay V. Khare
Chem. Mater. **36**, 3128–3137 (2024).

/837/ *Chiral excitations and the intermediate-field spin-liquid regime in the Kitaev magnet α -RuCl₃*

Anuja Sahasrabudhe, Mikhail A. Prosnikov, Thomas C. Koethe, Philipp Stein, Vladimir Tsurkan, Alois Loidl, Markus Grüninger, Hamoon Hedayat, and Paul H. M. van Loosdrecht
Phys. Rev. Res. **6**, L022005/1-6 (2024).
[arXiv.2305.03400](https://arxiv.org/abs/2305.03400)

/836/ *²H NMR studies on the dynamics of supercooled water in a metal–organic framework*

Verena Schiller, Katharina Knippen, Alois Loidl, Peter Lunkenheimer, Dirk Volkmer, and

Michael Vogel

J. Chem. Phys. **159**, 034501/1-11 (2023).

/835/ *Universelle thermische Ausdehnung in Gläsern*

Peter Lunkenheimer, Alois Loidl, Birte Riechers, and Konrad Samwer

Physik in unserer Zeit **54**(3), 112-113 (2023).

<https://doi.org/10.1002/piuz.202370305>

/834/ *Dipolar relaxation, conductivity, and polar order in AgCN*

Peter Lunkenheimer, Alois Loidl, and Gyan P. Johari

J. Chem. Phys. **158**, 184503/1-9 (2023).

<https://doi.org/10.1038/s41567-022-01920-5>

/833/ *Thermal expansion and the glass transition*

Peter Lunkenheimer, Alois Loidl, Birte Riechers, Alessio Zaccone, and Konrad Samwer

Nature Physics **19**, 694-699 (2023).

<https://doi.org/10.1038/s41567-022-01920-5>

/832/ *Nonequilibrium quasistationary spin disordered state in α -RuCl₃*

R. B. Versteeg, A. Chiocchetta, F. Sekiguchi, A. Sahasrabudhe, J. Wagner, A. I. R. Aldea, K. Budzinauskas, Zhe Wang, V. Tsurkan, A. Loidl, D. I. Khomskii, S. Diehl, and P. H. M. van Loosdrecht

Phys. Rev. B **105**, 224428/1-7 (2022).

<https://arxiv.org/abs/2005.14189>

/831/ *Nonequilibrium dynamics of α -RuCl₃ – a time-resolved magneto-optical spectroscopy study*

J. Wagner, A. Sahasrabudhe, R. Versteeg, Zhe Wang, V. Tsurkan, A. Loidl, H. Hedayat, and

P. H. M. van Loosdrecht

Faraday Discussion **237**, 237-258 (2022).

<https://arxiv.org/abs/2202.01648>

/830/ *Single-particle and collective excitations of polar water molecules confined in nanopores within a cordierite crystal lattice*

M. A. Belyanchikov, Z. V. Bedran, M. Savinov, P. Bednyakov, P. Proschek, J. Prokleska, V. A. Abalmasov, E. S. Zhukova, V. G. Thomas, A. Dudka, A. Zhugayevych, J. Petzelt, A. S.

Prokhorov, V. B. Anzin, R. K. Kremer, J. K. H. Fischer, P. Lunkenheimer, A. Loidl, E. Uykur, M. Dressel, and B. Gorshunov

Phys. Chem. Chem. Phys. **23**, 6890-6904 (2022).

/829/ *Magneto-optical study of metamagnetic transitions in the antiferromagnetic phase of α - RuCl_3*

J. Wagner, A. Sahasrabudhe, R. Versteeg, L. Wysocki, Zhe Wang, V. Tsurkan, A. Loidl, D. I. Khomskii, H. Hedayat, and P. H. M. van Loosdrecht
npj QM **7**, 28/1-10 (2022).

/828/ *Probing magnetic exchange interactions with helium*

C. Trainer, C. M. Yim, C. Heil, S. Farrar, V. Tsurkan, A. Loidl, and P. Wahl
Phys. Rev. Lett. **127**, 166803/1-6 (2021).

/827/ *On the proximate Kitaev quantum-spin liquid α - RuCl_3 : Thermodynamics, excitations and continua*

A. Loidl, P. Lunkenheimer, and V. Tsurkan
J. Phys. Cond. Matter **33**, 0443004/1-23 (2021).
doi/10.1088/1361-648X/ac1bcf

/826/ *Lithium-salt based deep eutectic solvents: Importance of glass formation and rotation-translation coupling for the ionic charge transport*

A. Schulz, P. Lunkenheimer, and A. Loidl
J. Chem. Phys. **155**, 044503/1-12 (2021).
arXiv:2104.14604

/825/ *Unusual field-induced spin-reorientation in FeCr_2S_4 : Field tuning of the Jahn-Teller state*

L. Prodan, S. Yasin, A. Jesche, J. Deisenhofer, H.-A. Krug von Nidda, F. Mayer, S. Zherlitsyn, J. Wosnitzer, A. Loidl, and V. Tsurkan
Phys. Rev. **104**, L020410/1-6 (2021).

/824/ *On the complexity of spinels: Magnetic, electronic, and polar ground states*

V. Tsurkan, H.-A. Krug von Nidda, J. Deisenhofer, P. Lunkenheimer, and A. Loidl
Phys. Reports **926**, 1-86 (2021).
arXiv:2104.06889

/823/ *On the structural heterogeneity of supercooled liquids and glasses*

G. Jug, A. Loidl, and H. Tanaka
Europhys. Lett. **133**, 56002/1-7 (2021).

/822/ *Translational and reorientational dynamics in deep eutectic solvents*

D. Reuter, P. Münzer, C. Gainaru, P. Lunkenheimer, A. Loidl, and R. Böhmer
J. Chem. Phys. **154**, 154501/1-11 (2021).
arXiv:2101.11042

/821/ *Strain-stabilized (π,π) order at the surface of Fe_{1+x}Te*

Chi Ming Yim, Soumendra Nath Panja, Christopher Trainer, Craig Topping, Christoph Heil, Vladimir Tsurkan, Alois Loidl, Andreas W. Rost, and Peter Wahl
Nano Letters **21**, 2786-2792 (2021).

/820/ *Angle-dependent thermodynamics of α - RuCl_3*

S. Bachus, D. A. S. Kaib, Y. Tokiwa, A. Jesche, V. Tsurkan, A. Loidl, S. M. Winter, A. A. Tsirlin, R. Valenti, and P. Gegenwart
Phys. Rev. B **103**, 054440/1-11 (2021).
arXiv:2101.07275

/819/ *Element specific field-induced spin reorientation and an unusual tetracritical point in $MnCr_2S_4$*

Sh. Yamamoto, H. Suwa, T. Kihara, T. Nomura, Y. Kotani, T. Nakamura, Y. Skourski, S. Zherlitsyn, L. Prodan, V. Tsurkan, H. Nojiri, A. Loidl, and J. Wosnitzer
Phys. Rev. B **103**, L020408/1-6 (2021).
arXiv:2008.13285

/818/ *Spin relaxation in $Cs_2CuCl_{4-x}Br_x$*

R. Hassan Abadi, R. M. Eremina, M. Hemmida, A. Dittl, M. V. Eremin, B. Wolf, W. Assmus, A. Loidl, and H.-A. Krug von Nidda
Phys. Rev. B **103**, 064420/1-11 (2021).
arXiv:1905.11186

/817/ *Magnetic surface reconstruction in the van der Waals antiferromagnet $Fe_{1+x}Te$*

C. Trainer, M. Songvilay, N. Qureshi, A. Stunault, C. M. Yim, E. E. Rodriguez, C. Heil, V. Tsurkan, M. A. Green, A. Loidl, P. Wahl, and C. Stock
Phys. Rev. B **103**, 024406/1-10 (2021).

/816/ *Electronic correlations and crystal-field effects in $RECu_3Ru_4O_{12}$ ($RE = La, Pr, Nd$)*

A. Günther, S. Riegg, W. Kraetschmer, S. Wehrmeister, N. Büttgen, E. W. Scheidt, H.-A. Krug von Nidda, M. V. Eremin, E. A. Arkipova, R. M. Eremina, A. Krimmel, H. Mutka, and A. Loidl
Phys. Rev. B **102**, 235136/1-18 (2021).

/815/ *Magnetic-field dependence of low-energy magnons, anisotropic heat conduction, and spontaneous relaxation of magnetic domains in the cubic helimagnet $ZnCr_2Se_4$*

D. S. Inosov, Y. O. Onykienko, Y. V. Tymoshenko, A. Akopyan, D. Shukla, N. Prasai, M. Doerr, D. Gorbunov, S. Zherlitsyn, D. J. Voneshen, M. Boehm, V. Tsurkan, V. Felea, A. Loidl, and J. L. Cohn
Phys. Rev. B **102**, 1844319/1-14 (2020).
arXiv:2009.13424

/814/ *Magneto-electric properties and low-energy excitations of multiferroic $FeCr_2S_4$*

A. Strinic, S. Reschke, K. V. Vasin, M. Schmidt, A. Loidl, V. Tsurkan, M. V. Eremin, and J. Deisenhofer
Phys. Rev. B **102**, 134409/1-7 (2020).
arXiv:2009.09890

/813/ *Multiple spin-orbit excitons and the electronic structure of α - $RuCl_3$*

P. Warzanowski, N. Borgwardt, K. Hopfer, J. Attig, T. C. Koethe, P. Becker, V. Tsurkan, A. Loidl, M. Hermanns, P. H. M. van Loosdrecht, and M. Grüninger
Phys. Rev. Res. **2**, 042007/1-7 (2020).
arXiv:1911.09337

/812/ *Universal correlations between the fragility and interparticle repulsion in glass-forming liquids*

P. Lunkenheimer, F. Humann, A. Loidl, and K. Samwer
J. Chem. Phys. **153**, 124507/1-7 (2020).
arXiv:2009.07742

/811/ *Ionic conductivity and relaxation dynamics in plastic crystals with nearly globular molecules*

D. Reuter, K. Seitz, P. Lunkenheimer, and A. Loidl

J. Chem. Phys. **153**, 014502/1-9 (2020).

arXiv:2005.07628

/810/ *Dielectric ordering of water molecules arranged in a dipolar lattice*

M. A. Belyanchikov, M. Savinov, Z. V. Bedran, P. Bednyakov, P. Proschek, J. Prokleska, V. A. Abalmasov, J. Petzelt, E. S. Zhukova, V. Thomas, A. Dudka, A. Zhugayevych, A. S. Prokhorov, V. B. Anzin, R. Kremer, J. K. H. Fischer, P. Lunkenheimer, A. Loidl, E. Uykur, M. Dressel, and B. Gorshunov

Nature Commun. **11**, 3927/1-9 (2020).

/809/ *Thermodynamic perspective on field-induced behavior of α - RuCl_3*

S. Bachus, D. A. S. Kaib, Y. Tokiwa, A. Jesche, V. Tsurkan, A. Loidl, S. M. Winter, A. A. Tsirlin, Roser Valenti, and P. Gegenwart

Phys. Rev. Lett. **125**, 097203/1-7 (2020).

arXiv:2006.02428

/808/ *Dispersion von Bethe Strings*

A. Loidl

Physik Journal **7**, 20-21 (2020).

/807/ *Supercooled water confined in a metal-organic framework*

J. K. H. Fischer, P. Sippel, D. Denysenko, P. Lunkenheimer, D. Volkmer, and A. Loidl

Commun. Physics **3**, 95/1-9 (2020).

<https://arxiv.org/abs/2009.07722>

/806/ *Quantum paraelectricity in the Kitaev quantum-spin-liquid candidates $\text{H}_3\text{LiIr}_2\text{O}_6$ and $\text{D}_3\text{LiIr}_2\text{O}_6$*

K. Geirhos, P. Lunkenheimer, M. Blankenhorn, R. Claus, Y. Matsumoto, K. Kitagawa, T. Takayama, H. Takagi, I. Kézsmárki, and A. Loidl

Phys. Rev. B **101**, 184410/1-9 (2020).

arXiv:2002.09016

/805/ *High-field quantum disordered state in α - RuCl_3 : Spin flips, bound states, and a multi-particle continuum*

A. Sahasrabudhe, D. A. S. Kaib, S. Reschke, R. German, T. C. Koethe, J. Buhot, D. Kamenskyi, C. Hickey, P. Becker, V. Tsurkan, A. Loidl, S. H. Do, K. Y. Choi, M. Grüninger, S. M. Winter, Zhe Wang, R. Valenti, and P. H. M. van Loosdrecht

Phys. Rev. B **101**, 140410/1-6 (2020).

arXiv:1908.11617

/804/ *Nanoscale electronic inhomogeneity in $\text{FeSe}_{0.4}\text{Te}_{0.6}$ revealed through unsupervised machine learning*

P. Wahl, U. R. Singh, V. Tsurkan, and A. Loidl

Phys. Rev. B **101**, 115112/1-4 (2020).

arXiv:2002.10004

/803/ *Structure, superconductivity, and magnetism in $Rb_{1-x}Fe_{1.6}Se_{2-z}S_z$*

D. Croitori, I. Filippova, V. Kravtsov, A. Günther, S. Widmann, D. Reuter, H.-A. Krug von Nidda, J. Deisenhofer, A. Loidl, and V. Tsurkan

Phys. Rev. B **101**, 054516/1-18 (2020).

arXiv:1909.02444

/802/ *Spin-lattice coupling in a ferrimagnetic spinel: Exotic H-T phase diagram of $MnCr_2S_4$ up to 110 T*

A. Miyata, H. Suwa, T. Nomura, L. Prodan, V. Felea, Y. Skourski, J. Deisenhofer, H.-A. Krug von Nidda, O. Portugall, S. Zherlitsyn, V. Tsurkan, J. Wosnitza, and A. Loidl

Phys. Rev. B **101**, 054432/1-8 (2020).

/801/ *Charge transport by global protonic conductivity and relaxational dynamics over hydrogen bonds in $Fe^{2+}Fe^{3+}_{3.2}(Mn^{2+},Zn)_{0.8}(PO_4)_3(OH)_{4.2}(HOH)_{0.8}$*

M. Winkler, P. Lunkenheimer, A. Loidl, S. H. Park, B. Röska, and M. Hoelzel

Sol. Stat. Ionics **347**, 115240/ (2020).

/800/ *High-field phase transitions in orbitally ordered multiferroic GeV_4S_8*

V. Velea, P. T. Cong, L. Prodan, D. Gorbunov, T. Nomura, Y. Skourski, S. Zherlitsyn, J.

Wosnitza, Z. Wang, A. Miyata, S. Widmann, H.-A. Krug von Nidda, J. Deisenhofer, V. Tsurkan, and A. Loidl

Phys. Rev. B **101**, 064413/1-10 (2020).

/799/ *Predicting the α -relaxation time of glycerol confined in 1.16 nm pores of zeolitic imidazolate frameworks*

K. L. Ngai, P. Lunkenheimer, and A. Loidl

Phys. Chem. Chem. Phys. **22**, 507-511 (2020).

/798/ *Broadband spectroscopy of nanoconfined water molecules*

M. A. Belyanchikov, M. Savinov, Z. V. Bedran, P. Bednyakov, P. Proschek, J. Prokleska, V. I. Torgashev, E. S. Zhukova, L. S. Kadyrov, V. Thomas, A. Dudka, A. Zhugayevych, V. B. Anzin, R. Kremer, J. K. H. Fischer, P. Lunkenheimer, A. Loidl, E. Uykur, M. Dressel, and B. Gorshunov
In: 4th International Conference on Nanotechnologies and Biomedical Engineering, ICNBME 2019, IFMBE Proceedings Vol 77, I. Tiginyanu, V. Sontea, and S. Railean (eds), Springer, Cham (2019).

/797/ *Third and fifth harmonic responses in viscous liquids*

S. Albert, M. Michl, P. Lunkenheimer, A. Loidl, P.M. Déjardin, and F. Ladieu

JSTAT 124003/1-44 (2019).

/796/ *Johari-Goldstein relaxation in glass-electrets*

P. Lunkenheimer, F. Humann, D. Reuter, K. Geirhos, A. Loidl, and G. P. Johari

Phys. Rev. Materials **3**, 112601(R)/1-5 (2019).

/795/ *Hertz-to-terahertz dielectric response of nanoconfined water molecules*

M. Belyanchikov, M. Savinov, P. Bednyakov, Z. Bedran, V. Thomas, V. Torgashev, A. Prokhorov, A. Loidl, P. Lunkenheimer, E. Zhukova, E. Uykur, M. Dressel, and B. Gorshunov
44th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz), Paris, France IEEE: IRMMW-THz (2019), pp. 1-3 doi:10.1109/IRMMW-THz.2019.8873987
arXiv:1911.02849

/794/ *Hertz-to-terahertz dielectric response of nanoconfined water molecules*

B. Gorshunov, M. Belyanchikov, M. Savinov, P. Bednyakov, Z. Bedran, V. Thomas, V. Torgashev, V. Anzin, A. Loidl, P. Lunkenheimer, E. Zhukova, E. Uykur, and M. Dressel International Symposium on Dynamical Properties of Solids (DyProSo 2019), Ferrara (I) MDPI Proceedings **26**(1), 27 (2019).

/793/ *Spin-probe interaction and mobility in confined cyclohexane: Effects of pore size and pore surface composition of silica gel matrices*

M. Lukesova, H. Svajdlenkova, D. Reuter, S. Valic, A. Loidl, and J. Bartos Chem. Phys. Lett. **735**, 136756/1-6 (2019).

/792/ *Infrared-active phonons in the ferrimagnetic and multiferroic phases of $FeCr_2S_4$: Evidence for structural distortions*

J. Deisenhofer, F. Mayr, M. Schmidt, A. Loidl, and V. Tsurkan Phys. Rev. B **100**, 144428/1-4 (2019).

/791/ *Quantum critical dynamics of a longitudinal-field Heisenberg-Ising chain: Many-body strings versus fractional excitations*

Zhe Wang, M. Schmidt, A. Loidl, Jianda Wu, Haiyuan Zou, Wang Yang, Chao Dong, Y. Kohama, K. Kindo, D. I. Gorbunov, S. Niesen, O. Breunig, J. Engelmayer, and T. Lorenz Phys. Rev. Lett. **123**, 067202/1-7 (2019).

/790/ *Enhancement of magnetodielectric coupling in 6H-perovskites $Ba_3RRu_2O_9$ for heavier rare-earth cations ($R=Ho, Tb$)*

T. Basu, V. Caignaert, S. Ghara, X. Ke, A. Pautrat, S. Krohns, A. Loidl, and B. Raveau Phys. Rev. Materials **3**, 114401/1-8 (2019).

/789/ *THz excitations in α - $RuCl_3$: Majorana fermions and rigid-plane shear and compression modes*

S. Reschke, V. Tsurkan, S.-H. Do, K.-Y. Choi, P. Lunkenheimer, Zhe Wang, and A. Loidl Phys. Rev. B **100**, 104403(R)/1-6 (2019).

/788/ *Intrinsic spin resonance in iron pnictides*

H.-A. Krug von Nidda, M. Hemmida, S. Kraus, N. Pascher, J. Deisenhofer, and A. Loidl, Magn. Reson. Solids **21**, 19306/1-8 (2019).

/787/ *Plastic crystalline solid-state electrolytes: Ionic conductivity and orientational dynamics in nitrile mixtures*

D. Reuter, P. Lunkenheimer, and A. Loidl J. Chem. Phys. **150**, 244507/1-9 (2019).

/786/ *Chirality driven ferroelectricity in $LiCuVO_4$*

A. Ruff, P. Lunkenheimer, H.-A. Krug von Nidda, S. Widmann, A. Prokofiev, L. Svistov, A. Loidl, and S. Krohns npj Quantum Materials **4**, 24/1-5 (2019).

/785/ *Multiferroic spin-superfluid and spin-supersolid phases in $MnCr_2S_4$*

A. Ruff, Z. Wang, S. Zherlitsyn, J. Wosnitza, S. Krohns, H.-A. Krug von Nidda, P. Lunkenheimer, V. Tsurkan, and A. Loidl Phys. Rev. B **100**, 014404/1-9 (2019).

/784/ *Professor Kochelaev, Boris Ivanovich*

A. V. Aganov, H.-A. Krug von Nidda, A. Loidl, et al.
Magn. Reson. Solids **19**, 19300/1-3 (2019).

/782/ *Manipulating surface magnetic order in iron telluride*

C. Trainer, C. M. Yim, C. Heil, F. Giustino, D. Croitori, V. Tsurkan, A. Loidl, E. E. Rodriguez, C. Stock, and P. Wahl
Science Advances **5**, eaav3478/1-7 (2019).

/783/ *Atomic-scale coexistence of short-range magnetic order and superconductivity in $Fe_{1+y}Se_{0.1}Te_{0.9}$*

R. Aluru, H. Zhou, A. Essig, J.-Ph. Reid, V. Tsurkan, A. Loidl, J. Deisenhofer, and P. Wahl
Phys. Rev. Materials **3**, 084805/1-5 (2019).

/781/ *Evidence of the plaquette structure of $Fe_{1+x}Te$ Iron Telluride: Mössbauer spectroscopy study*

A. G. Kiiamov, L. R. Tagirov, F. G. Vagizov, D. A. Tayurskii, Hans-Albrecht Krug von Nidda, D. Croitori, V. Tsurkan, and A. Loidl
Phys. Stat. Sol. B **256**, 1800698/1-6 (2019).

/780/ *Thermodynamic evidence of fractionalized excitations in α - $RuCl_3$*

S. Widmann, V. Tsurkan, D. A. Prishchenko, V. G. Mazurenko, A. A. Tsirlin, and A. Loidl
Phys. Rev. B **99**, 094415/1-11 (2019).

/779/ *Ionic conductivity of deep eutectic solvents: The role of orientational dynamics and glassy freezing*

D. Reuter, C. Binder, P. Lunkenheimer, and A. Loidl
Phys. Chem. Chem. Phys. **21**, 6801-09 (2019).

/778/ *Glycerol confined in zeolitic imidazolate frameworks: The temperature dependent cooperativity length scale of glassy freezing*

M. Uhl, J.K.H. Fischer, P. Sippl, H. Bunzen, P. Lunkenheimer, D. Volkmer, and A. Loidl
J. Chem. Phys. **150**, 024504/1-9 (2019).

/777/ *High-resolution neutron depolarization microscopy of the ferromagnetic transitions in Ni_3Al and $HgCr_2Se_4$ under pressure*

P. Jorba, M. Schultz, D. S. Hussey, M. Abir, M. Seifert, V. Tsurkan, A. Loidl, C. Pfleiderer, and B. Khaykovich
J. Magn. Magn. Mater. **475**, 176-183 (2019).

/776/ *Weak ferromagnetism and glassy state in κ -(BEDT-TTF) $_2$ Hg(SCN) $_2$ Br*

M. Hemmida, H.-A. Krug von Nidda, B. Miksch, L.L. Samoilenko, A. Pustogow, S. Widmann, A. Henderson, T. Siegrist, J.A. Schlueter, A. Loidl, and M. Dressel
Phys. Rev. B **98**, 241202(R)/1-6 (2018).

/775/ *Vibrational properties and magnetic specific heat of the covalent chain antiferromagnet $RbFeSe_2$*

A. G. Kiiamov, Y. V. Lysogorskiy, F. G. Vagizov, L. R. Tagirov, D. A. Tayurskii, Z. Seidov, H.-A. Krug von Nidda, V. Tsurkan, D. Croitori, A. Günther, F. Mayr, and A. Loidl
Phys. Rev. B **98**, 214411/1-8 (2018).

/774/ *Sub-gap optical response in the Kitaev spin-liquid candidate α -RuCl₃*

S. Reschke, F. Mayr, S. Widmann, H.-A. Krug von Nidda, V. Tsurkan, M. V. Eremin, S.-H. Do, K.-Y. Choi, Zhe Wang, and A. Loidl
J. Phys. Condens. Matter **30**, 475604/1-12 (2018).

/773/ *Importance of reorientational dynamics for the charge transport in ionic liquids*

P. Sippel, S. Krohns, D. Reuter, P. Lunkenheimer, and A. Loidl
Phys. Rev. E **98**, 052605/1-9 (2018).

/772/ *Ion dynamics in ionic-liquid based Li-ion electrolytes investigated by neutron scattering and dielectric spectroscopy*

C. J. Jafta, C. Bridges, L. Haupt, C. Do, P. Sippel, M. J. Cochran, S. Krohns, M. Ohl, A. Loidl, E. Mamontov, P. Lunkenheimer, S. Dai, and X.-G. Sun
ChemSusChem **11**, 3512-23 (2018).

/771/ *Glassy dynamics: From millihertz to terahertz*

P. Lunkenheimer and A. Loidl

In „The Scaling of Relaxation Processes“ (F. Kremer and A. Loidl, Eds.), Advances in Dielectrics, Springer International Publishing, 2018, p. 23 – 59

/770/ *The scaling of relaxation processes-revisited*

F. Kremer and A. Loidl

In „The Scaling of Relaxation Processes“ (F. Kremer and A. Loidl, Eds.), Advances in Dielectrics, Springer International Publishing, 2018, p. 1 – 21

/769/ *Relaxation dynamics in the one-dimensional organic charge-transfer salt δ -(EDT-TTF-CONMe₂)₂Br*

J. K. H. Fischer, P. Lunkenheimer, C. Leva, S.M. Winter, M. Lang, C. Meziere, P. Batail, A. Loidl, and R. S. Manna
Phys. Rev. B **97**, 235156/1-9 (2018).

/768/ *Bethe-Strings: Exotische Anregungen in Spinsystemen*

Z. Wang and A. Loidl

Physik in unserer Zeit **49**, 111/1-2 (2018).

/767/ *Nonlinear dielectric response in plastic crystals*

P. Lunkenheimer, M. Michl, and A. Loidl,

in „Nonlinear Dielectric Spectroscopy“ (R. Richert, Ed.), Advances in Dielectrics, Springer International Publishing, 2018, p. 277-300

/766/ *Third and fifth harmonic responses in viscous liquids*

S. Albert, M. Michl, P. Lunkenheimer, A. Loidl, P.M. Dejardin, and F. Ladieu

in „Nonlinear Dielectric Spectroscopy“ (R. Richert, Ed.), Advances in Dielectrics, Springer International Publishing, 2018, p. 219-260

arXiv: 1807.03984

/765/ *Magnetodielectric coupling in Ru-based 6H-perovskite Ba₃NdRu₂O₉*

T. Basu, A. Pautrat, V. Hardy, A. Loidl, and S. Krohns

Appl. Phys. Lett. **113**, 042902/1-5 (2018).

/764/ *Universal link of magnetic exchange and structural behavior under pressure in chromium spinels*

I. Efthimiopoulos, I. Khatri, Z.T.Y. Liu, S.V. Kare, P. Sarin, V. Tsurkan, A. Loidl, D. Zhang, and Y. Wang

Phys. Rev. B **97**, 184435/1-9 (2018).

/763/ *Fast dynamics in glass-forming salol investigated by dielectric spectroscopy*

P. Lunkenheimer, R. Wehn, M. Köhler, and A. Loidl

J. Non-Cryst. Solids **492**, 63-67 (2018).

/762/ *Frequency dependent polarisation switching in h-ErMnO₃*

A. Ru, Ziyu Li, A. Loidl, J. Schaab, M. Fiebig, A. Cano, Zewu Yan, E. Bourret, J. Glaum, D. Meier, and S. Krohns

Appl. Phys. Lett. **112**, 182908/1-5 (2018).

/761/ *Manifold of magnetic ordered states and excitations in the almost Heisenberg pyrochlore antiferromagnet MgCr₂O₄*

S. Gao, K. Guratinder, U. Stuhr, J.S. White, M. Mansson, B. Roessli, T. Fennell, V. Tsurkan, A. Loidl, M.C. Hatnean, G. Balakrishnan, S. Raymond, L. Chapon, V.O. Garlea, A.T. Savici, A. Cervellino, A. Bombardi, D. Chernyshov, Ch. Rüegg, J.T. Haraldsen, and O. Zaharko

Phys. Rev. B **97**, 134430/1-12 (2018).

/760/ *Quantum criticality of an Ising-like spin-1/2 antiferromagnetic chain in transverse magnetic field*

Zhe Wang, T. Lorenz, D.I. Gorbunov, P.T. Cong, Y. Kohama, S. Niesen, O. Breunig, J. Engelmayer, A. Herman, J. Wu, K. Kindo, J. Wosnitza, S. Zherlitsyn, and A. Loidl

Phys. Rev. Lett. **120**, 207205/1-6 (2018).

/759/ *Glycerol hydrogen-bonding network dominates structure and collective dynamics in a deep eutectic solvent*

A. Faraone, D.V. Wagle, G.A. Baker, E. Novak, M. Ohl, D. Reuter, P. Lunkenheimer, A. Loidl, and E. Mamontov

J. Phys. Chem B **122**, 1261-67 (2018).

/758/ *Johari-Goldstein relaxation far below T_g: Experimental evidence for the Gardener transition in structural glasses?*

K. Geirhos, P. Lunkenheimer, and A. Loidl

Phys. Rev. Lett. **120**, 085705/1-6 (2018).

/757/ Dipolar spin ice states with fast monopole hopping rate in CdEr₂X₄ (X = Se, S)

S. Gao, O. Zaharko, V. Tsurkan, L. Prodan, E. Riordan, J. Lago, B. Fak, A. Wildes, M.M. Koza, C. Ritter, P. Fouquet, L. Keller, E. Canevet, M. Medarde, J. Blomgren, Ch. Johansson, S.R. Giblin, S. Vrtnik, J. Luzar, A. Loidl, Ch. Rüegg, and T. Fennell
Phys. Rev. Lett. **120**, 137201/1-6 (2018).

/756/ Intrinsic charge dynamics in high-T_c AFeAs(O,F) superconductors

A. Charnukha, D. Pröpper, N.D. Zhigadlo, M. Naito, M. Schmidt, Zhe Wang, J. Deisenhofer, A. Loidl, B. Keimer, A.V. Boris, and D.N. Basov
Phys. Rev. Lett. **120**, 087001/1-7 (2018).

/755/ Experimental observation of Bethe strings

Zhe Wang, J. Wu, W. Yang, A.K. Bera, D. Kamenskyi, A.T.M.N. Islam, S. Xu, J.M. Law, B. Lake, C. Wu, and A. Loidl
Nature **554**, 219-223 (2018).