



NEUTRONS  
FOR SOCIETY

# Annual Report 2024

In 2024, a total of **465** publications (published in 2023 or 2024) have been retrieved and registered by the library

Adrich P., Blumer P., Caratsch G., Chung M., Cladé P., Comini P., Crivelli P., Dalkarov O., Debu P., Douillet A., Drapier D., Froelich P., Garroum N., Guellati-Khélifa S., Guyomard J., Hervieux P.A., Hilico L., Indelicato P., Jonsell S., Karr J.P., Kim B., Kim S., Kim E.S., Ko Y.J., Kosinski T., Kuroda N., Latacz B.M., Lee B., Lee H., Lee J., Lim E., Liskay L., Lunney D., Manfredi G., Mansoulié B., Matusiak M., Nesvizhevsky V., Nez F., Niang S., Ohayon B., Park K., Paul N., Pérez P., Regenfus C., Reynaud S., Roumegou C., Roussé J.Y., Sacquin Y., Sadowski G., Sarkisyan J., Sato M., Schmidt-Kaler F., Staszczak M., Szymczyk K., Tanaka T.A., Tuchming B., Vallage B., Voronin A., van der Werf D.P., Welker A., Won D., Wronka S., Yamazaki Y., Yoo K.H., Yzombard P. [Production of antihydrogen atoms by 6 keV antiprotons through a positronium cloud](#)  
European Physical Journal C **83**, 1004-1-1004-11 (2023)

Adroher-Benítez I., Morozova T.I., Catalini G., García N.A., Barrat J.L., Luengo G.S., Leonforte F. [Effect of polymer architecture on the adsorption and coating stability on heterogeneous biomimetic surfaces](#)  
Macromolecules **56**, 10285-10295 (2023)

Agafonov A., Pineda-Romero N., Witman M., Nassif V., Vaughan G.B.M., Lei L., Ling S., Grant D.M., Dornheim M., Allendorf M., StÁvila V., Zlotea C. [Destabilizing high-capacity high entropy hydrides via earth abundant substitutions: From predictions to experimental validation](#)  
Acta Materialia **276**, 120086-1-120086-10 (2024)

Agarwal M., Zika A., Schweins R., Gröhn F. [Controlling the morphology in electrostatic self-assembly via light](#)  
Polymers **16**, 50-1-50-23 (2024)

Almadhi A., Ji K., Injac S.D., Ritter C., Attfield J.P. [\( \$\text{Ca}\_{0.5}\text{Mn}\_{0.5}\$ \) \$\_2\text{MnTeO}\_6\$  - An anomalously stable high-pressure double perovskite](#)  
Chemistry – An Asian Journal **19**, e202400280-1-e202400280-6 (2024)

Almeida G., de Marcos-Galán A., Martínez-Ortigosa J., Sastre G., Jiménez-Ruiz M., Rey F., Blasco T. [Effects of cage topology on ethylene adsorption mechanism in silver exchanged CHA and RHO zeolites: An Inelastic Neutron Scattering and Density Functional study](#)  
Microporous and Mesoporous Materials **367**, 112982-1-112982-11 (2024)

Almeida M., Couturaud B., Rousseau B., Dudzinski D., Prévost S., Amiel S., Cousin F., Le Coeur C. [Pegylated surfactants based on fatty acids: 12-hydroxystearic acid versus stearic acid](#)  
Journal of Molecular Liquids **411**, 125723-1-125723-9 (2024)

Alshemi A., Campillo E., Forgan E.M., Cubitt R., Abdel-Hafiez M., Blackburn E. [Investigating the superconducting state of  \$2H\text{-NbS}\_2\$  as seen by the vortex lattice](#)  
Physical Review Research **6**, 033218-1-033218-12 (2024)

Alvarado Galindo F., Venzmer J., Prévost S., Hoffmann I., Gradzielski M. [Incorporation of short-chain alcohols into fluid bilayers and its effect on membrane dynamic properties as seen by neutron scattering](#)

Colloids and Surfaces A **702**, 135014-1-135014-10 (2024)

Alvarez Herrera P.A., Meledam G.P., Niebuur B.J., Taji Y., Chiappisi L., Henschel C., Laschewsky A., Schulte A., Papadakis C.M. [Effect of pressure on the micellar structure of PMMA-b-PNIPAM diblock copolymers in aqueous solution](#)

Macromolecules **57**, 10263-10274 (2024)

Álvarez-Alonso P., Camarillo-García J.P., Salazar D., López-García J., Echevarria-Bonet C., Lázpita P., Padrón-Alemán K., Sánchez Llamazares J.L., Flores-Zúñiga H., Chernenko V. [Investigating the reversible nature of the magnetocaloric effect under cyclic conditions of the Ni<sub>50</sub>Mn<sub>34</sub>In<sub>15</sub>Ga<sub>1</sub> magnetic shape memory alloy](#)

Journal of Alloys and Compounds **993**, 174576-1-174576-8 (2024)

Andel B., Andreyev A.N., Blazhev A., Lică R., Naïdja H., Stryczyk M., Van Duppen P., Algora A., Antalic S., Barzakh A., Benito J., Benzoni G., Berry T., Borge M.J.G., Chrysalidis K., Clisu C., Costache C., Cubiss J.G., De Witte H., Fedorov D.V., Fedosseev V.N., Fraile L.M., Fynbo H.O.U., Greenlees P.T., Harkness-Brennan L.J., Huyse M., Illana A., Jolie J., Judson D.S., Konki J., Lazarus I., Madurga M., Mărginean N., Mărginean R., Marsh B.A., Mihai C., Molkanov P.L., Mosat P., Murias J.R., Năcher E., Negret A., Page R.D., Pascu S., Perea A., Pucknell V., Rahkila P., Rapisarda E., Rezynkina K., Sánchez-Tembleque V., Schomacker K., Seliverstov M.D., Sotty C., Stan L., Sürder C., Tengblad O., Vedia V., Viñals S., Wadsworth R., Warr N. [β decay of the ground state and of a low-lying isomer in <sup>216</sup>Bi](#)

Physical Review C **109**, 064321-1-064321-18 (2024)

Andriushin N.D., Müller J., Pavlovskii N.S., Grumbach J., Granovsky S., Tymoshenko Y.V., Zaharko O., Ivanov A., Ollivier J., Doerr M., Keimer B., Mostovoy M., Inosov D.S., Peets D.C. [Reentrant multiple-q magnetic order and a “spin meta-cholesteric” phase in Sr<sub>3</sub>Fe<sub>2</sub>O<sub>7</sub>](#)

npj Quantum Materials **9**, 84-1-84-6 (2024)

Apostolides D.E., Michael G., Patrickios C.S., Notredame B., Zhang Y., Gohy J.F., Prévost S., Gradzielski M., Jung F.A., Papadakis C.M. [Dynamic covalent amphiphilic polymer conetworks based on end-linked pluronic F108: Preparation, characterization, and evaluation as matrices for gel polymer electrolytes](#)

ACS Applied Materials & Interfaces **16**, 23813-23825 (2024)

Appleby G., Boudou C., Gilles R., Mitchell E., Sánchez A., Shotton E. [Analytical research infrastructures and industry engagement: drivers, challenges, and impact](#)

In “Big Science in the 21st Century - Economic and societal impacts” (IOP, 2023) pp.9-1-9-29

Arcelus O., Rodríguez-Carvajal J., Katcho N.A., Reynaud M., Black A.P., Chatzogiannakis D., Frontera C., Serrano-Sevillano J., Ismail M., Carrasco J., Fauth F., Palacín M.R., Casas-Cabanás M. [FullProfAPP: a graphical user interface for the streamlined automation of powder diffraction data analysis](#)

Journal of Applied Crystallography **57**, 1676-1690 (2024)

Aubert A., Skokov K., Rogalev A., Chirkova A., Beckmann B., Maccari F., Dilmieva E., Wilhelm F., Nassif V., Diop L.V.B., Bruder E., Löfstrand J., Primetzhofer D., Sahlberg M., Adabifiroozjaei E., Molina-Luna L., Gómez G., Eggert B., Ollefs K., Wende H., Gutfleisch O. [Residual ferromagnetic regions affecting the first-order phase transition in off-stoichiometric Fe-Rh](#)  
ACS Applied Materials & Interfaces **16**, 62358-62370 (2024)

Augier C., Baulieu G., Belov V., Berge L., Billard J., Bret J.L., Bres G., Broniatowski A., Calvo M., Cazes A., Chaize D., Chala M., Chapellier M., Chaplinsky L., Chemin G., Chen R., Colas J., Cudmore E., De Jesus M., de Marcillac P., Dumoulin L., Exshaw O., Ferriol S., Figueroa-Feliciano E., Filippini J.B., Formaggio J.A., Fuard S., Gascon J., Giuliani A., Goupy J., Goy C., Guerin C., Guy E., Harrington P., Hertel S.A., Heusch M., Hong Z., Ianigro J.C., Jin Y., Juillard A., Karaivanov D., Kazarcev S., Lamblin J., Lattaud H., Li M., Lubashevskiy A., Marnieros S., Martini N., Mayer D.W., Minet J., Monfardini A., Mounier F., Novati V., Olivieri E., Oriol C., Mateo L. Ovalle, Patel P.K., Perbet E., Pinckney H.D., Poda D.V., Ponomarev D., Rarbi F., Réal J.S., Redon T., Reyes F.C., Robert A., Rozov S., Rozova I., Scorza S., Schmidt B., Shevchik Y., Soldner T., Stachurska J., Stutz A., Vagneron L., Van De Pontseele W., Vezzu F., Winslow L., Yakushev E., Zinatulina D. [First demonstration of 30 eVee ionization energy resolution with Ricochet germanium cryogenic bolometers](#)  
European Physical Journal C **84**, 186-1-186-10 (2024)

Aumond T., Manokaran R., Eck J., Ergincan O., Daniel C., Farrusseng D., Coasne B. [A review on adsorption in nanoporous adsorbents for gas decontamination: Space applications and beyond](#)  
Industrial & Engineering Chemistry Research **63**, 19375-19397 (2024)

Baccile N., Chaleix V., Hoffmann I. [Measuring the bending rigidity of microbial glucolipid \(biosurfactant\) bioamphiphile self-assembled structures by neutron spin-echo \(NSE\): Interdigitated vesicles, lamellae and fibers](#)  
Biochimica et Biophysica Acta (BBA) - Biomembranes **1866**, 184243-1-184243-11 (2024)

Bachiller-Baeza B., Rodrigues J.E.F.S., Capel-Sanchez M., Gainza J., García-Sánchez V.E., Villar-García I.J., Perez-Dieste V., Marini C., Fernández-Díaz M.T., Alonso J.A., Álvarez-Galván C. [In situ evolution of surface and bulk properties of Ni/La-doped CeO<sub>2</sub> catalysts for CO<sub>2</sub> reduction with hydrogen](#)  
Journal of CO<sub>2</sub> Utilization **89**, 102969-1-102969-12 (2024)

Baldesi L., Barlini S., Stefanini A.A., Camaiani A., Piantelli S., Casini G., Ciampi C., Cinausero M., Cicerchia M., Dell'Aquila D., Domenichetti L., Fabris D., Frosin C., Gozzelino A., Lombardo I., Marchi T., Moretto S., Mengarelli A., Olmi A., Pasquali G., Scomparin L., Valdre S., Vanzan E. [Performance of the antisymmetrized molecular dynamics transport model for low energy reactions: Comparison with experimental results for <sup>18</sup>O+<sup>12</sup>C at 16.7 MeV/nucleon](#)  
Physical Review C **109**, 064618-1-064618-9 (2024)

Bandyopadhyay A., Das D., Chakraborty A., Bhowal S., Kumar V., Stenning G.B.G., Ritter C., Adroja D.T., Moretti Sala M., Efimenko A., Meneghini C., Bert F., Biswas P.K., Dasgupta I., Saha Dasgupta T., Mahajan A.V., Ray S. [Disordered magnetic ground state in a quasi-1-D d<sub>4</sub> columnar iridate Sr<sub>3</sub>LiIrO<sub>6</sub>](#)  
Journal of Physics Condensed Matter **36**, 425804-1-425804-20 (2024)

Bange L., Mukhina T., Fragneto G., Rondelli V., Schneck E. [Influence of adhesion-promoting glycolipids on the structure and stability of solid-supported lipid double-bilayers](#)  
Soft Matter **20**, 2113-2125 (2024)

Barrat J.L., Del Gado E., Egelhaaf S.U., Mao X., Dijkstra M., Pine D.J., Kumar S.K., Bishop K., Gang O., Obermeyer A., Papadakis C.M., Tsitsilianis C., Smalyukh I.I., Hourlier-Fargette A., Andrieux S., Drenckhan W., Wagner N., Murphy R.P., Weeks E.R., Cerbino R., Han Y., Cipelletti L., Ramos L., Poon W.C.K., Richards J.A., Cohen I., Furst E.M., Nelson A., Craig S.L., Ganapathy R., Sood A.K., Sciortino F., Mungan M., Sastry S., Scheibner C., Fruchart M., Vitelli V., Ridout S.A., Stern M., Tah I., Zhang G., Liu A.J., Osuji C.O., Xu Y., Shewan H.M., Stokes J.R., Merkel M., Ronceray P., Rupprecht J.F., Matsarskaia O., Schreiber F., Roosen-Runge F., Aubin-Tam M.E., Koenderink G.H., Espinosa-Marzal R.M., Yus J., Kwon J. [Soft matter roadmap](#)  
Journal of Physics: Materials **7**, 012501-1-012501-104 (2024)

Barroso M., Dai M., Bubeck C., Scavini M., Cuello G.J., Zhang H., Weidenkaff A., Widenmeyer M. [Investigation of O/N ordering in perovskite-type oxynitrides  \$\text{La}\_{1-x}\text{Y}\_x\text{Ta}\(\text{O},\text{N}\)\_3\$  on long range and short scale](#)  
Inorganics **12**, 90-1-90-18 (2024)

Bassu G., Houston J.E., Lara-Peña M.A., Kriegs H., Lettinga M.P., Porcar L., Scotti A., Laurati M. [Link between permanent shear-banding and local concentration fluctuations in suspensions of compressible microgels](#)  
Physics of Fluids **36**, 113116-1-113116-8 (2024)

Bazzaoui H., Gao M., Hernandez O., Chenu S., He L., Genevois C., Véron E., del Campo L., Allix M., Darling G., Dyer M.S., Pitcher M.J. [La substitution into the melilite derivative  \$\text{Ca}\_5\text{Ga}\_6\text{O}\_{14}\$ : Prediction, synthesis and ionic conductivity](#)  
Inorganic Chemistry **63**, 18902-18913 (2024)

Beck C., Roosen-Runge F., Grimaldo M., Zeller D., Peters J., Schreiber F., Seydel T. [Accessing self-diffusion on nanosecond time and nanometre length scales with minute kinetic resolution](#)  
Journal of Applied Crystallography **57**, 912-924 (2024)

Belloso-Casuso C., de Pedro I., Cañadillas-Delgado L., Beobide G., Sánchez-Andújar M., García Ben J., Walker J., González Izquierdo P., Cano I., Rodríguez Fernández J., Fabelo O. [Structural and physico-chemical characterization of hybrid materials based on globular quinuclidinium cation derivatives and tetrachloridocobaltate\(ii\) anions](#)  
CrystEngComm **26**, 439-451 (2024)

Belverge D., Leconte P., Geslot B., Kessedjian G., Mutti P., Rodiac F., Pirovano E., Lutz B., Ledoux X., Mathieu L., Méplan O. [New experiment for measuring the delayed neutron yields of  \$^{238}\text{U}\$  fission in the range 1 MeV to 19 MeV](#)  
EPJ Web of Conferences **288**, 04016-1-04016-6 (2023)

Bergendal E., Rutland M.W. [Unveiling texture and topography of fatty acid langmuir films: Domain stability and isotherm analysis](#)  
Langmuir **40**, 10468-10476 (2024)

- ivour A., Jacobs J., Daumann F., Hörner G., Weber B., Ritter C., Ebbinghaus S.G. [Structure and magnetic properties of the  \$n = 3\$  Ruddlesden-popper oxyfluoride  \$\text{La}\_{0.5}\text{Sr}\_{3.5}\text{Fe}\_3\text{O}\_{7.5}\text{F}\_{2.6}\$](#)  *Inorganic Chemistry* **63**, 20427-20437 (2024)
- Blanche J., Mitchell D., Shang J., Flynn D., Pavuluri S., Desmulliez M. [Dynamic analysis of geomaterials using microwave sensing](#) *Scientific Reports* **14**, 7112-1-7112-17 (2024)
- Blasco D.F. [Dielectric phenomena at magnetic quantum critical points](#) PhD Thesis (2024)
- Blasco J., Rodríguez-Velamazán J.A., García-Muñoz J.L., Subías G. [Disclosing the magnetic ground state of  \$\text{PrBaMn}\_2\text{O}\_6\$](#)  *Low Temperature Physics* **50**, 817-824 (2024)
- Bounoua D., Sidis Y., Boehm M., Steffens P., Loew T., Guo L.S., Qian J., Yao X., Bourges P. [Universality of  \$q=\frac{1}{2}\$  orbital magnetism in the pseudogap phase of the high-Tc superconductor  \$\text{YBa}\_2\text{Cu}\_3\text{O}\_{6+x}\$](#)  *Physical Review B* **108**, 214408-1-214408-11 (2023)
- Bousquet E., Lelièvre-Berna E., Qureshi N., Soh J.R., Spaldin N.A., Urru A., Verbeek X.H., Weber S.F. [On the sign of the linear magnetoelectric coefficient in  \$\text{Cr}\_2\text{O}\_3\$](#)  *Journal of Physics Condensed Matter* **36**, 155701-1-155701-11 (2024)
- Bouzidi A. [Hydrogen absorption properties in high entropy alloys containing refractory elements](#) PhD Thesis (2023)
- Brems X.S., Mühlbauer S., Cubitt R. [Pushing the limits of accessible length scales via a modified Porod analysis in small-angle neutron scattering on ordered systems](#) *Journal of Applied Crystallography* **57**, 1358-1372 (2024)
- Brener D.J., Rodriguez Mallo I., Lane H., Rodriguez-Rivera J.A., Schmalzl K., Songvilay M., Guratinder K., Petrovic C., Stock C. [Anisotropic excitonic magnetism from discrete  \$C\_4\$  symmetry in  \$\text{CeRhIn}\_5\$](#)  *Physical Review B* **110**, 064434-1-064434-15 (2024)
- Busslinger S.D., Mapanao A.K., Kegler K., Bernhardt P., Flühmann F., Fricke J., Zeevaert J., Köster U., van der Meulen N.P., Schibli R., Müller C. [Comparison of the tolerability of  \$^{161}\text{Tb}\$ - and  \$^{177}\text{Lu}\$ -labeled somatostatin analogues in the preclinical setting](#) *European Journal of Nuclear Medicine and Molecular Imaging* **51**, 4049-4061 (2024)
- Cabrillo C., Fernández-Perea R., Mondelli C., González M.A., Fernández-Alonso F., Enciso E., Saboungi M.L. [Large hysteretic hydrogen adsorption in double wall carbon nanotubes bundles](#) *Carbon* **219**, 118766-1-118766-10 (2024)
- Callaway D.J.E., Nicholl I.D., Shi B., Reyes G., Farago B., Bu Z. [Nanoscale dynamics of the cadherin-catenin complex bound to vinculin revealed by neutron spin echo spectroscopy](#)

PNAS **121**, e2408459121-1-e2408459121-8 (2024)

Campbell B.J., Stokes H.T., Perez-Mato J.M., Rodríguez-Carvajal J. [A recapitulation of magnetic space groups and their UNI symbols](#)  
Acta Crystallographica B **80**, 401-408 (2024)

Candolfi C., Le Gars L., Guélou G., Ventrapati P.K., Prestipino C., Guizouarn T., Pasturel M., Levinský P., Lemoine P., Raveau B., Shen X., Lebedev O.I., Berrod Q., Zanotti J.M., Guilmeau E. [Influence of cationic ordering on the lattice dynamics of monoclinic Cu<sub>5</sub>Sn<sub>2</sub>S<sub>7</sub> and cubic Cu<sub>5</sub>Sn<sub>2</sub>S<sub>6.65</sub>C<sub>10.35</sub> sulfides](#)  
Journal of Physical Chemistry C **128**, 14075-14084 (2024)

Caro-Campos I., González-Barrios M.M., Durá O.J., Fransson E., Plata J.J., Ávila D., Fdez Sanz J., Prado-Gonjal J., Márquez A.M. [Challenges reconciling theory and experiments in the prediction of lattice thermal conductivity: The case of Cu-based sulvanites](#)  
Chemistry of Materials **36**, 8704-8713 (2024)

Casanovas-Hoste A., Domingo-Pardo C., Lerendegui-Marco J., Guerrero C., Tarifeño-Saldivia A., Krtička M., Pignatari M., Calviño F., Schumann D., Heintz S., Dressler R., Köster U., Aberle O., Andrzejewski J., Audouin L., Bécares V., Bacak M., Balibrea-Correa J., Barbagallo M., Barros S., Bečvār F., Beinrucker C., Berthoumieux E., Billowes J., Bosnar D., Brügger M., Caamaño M., Calviani M., Cano-Ott D., Cardella R., Castelluccio D.M., Cerutti F., Chen Y.H., Chiaveri E., Colonna N., Cortés G., Cortés-Giraldo M.A., Cosentino L., Damone L.A., Diakaki M., Dupont E., Durán I., Fernández-Domínguez B., Ferrari A., Ferreira P., Finocchiaro P., Furman V., Göbel K., García A.R., Gawlik-Ramiega A., Glodariu T., Gonçalves I.F., González-Romero E., Goverdovski A., Griesmayer E., Günsing F., Harada H., Heftrich T., Heyse J., Jenkins D.G., Jericha E., Käppeler F., Kadi Y., Katabuchi T., Kavrigin P., Ketlerov V., Khryachkov V., Kimura A., Kivel N., Kokkoris M., Leal-Cidoncha E., Lederer-Woods C., Leeb H., Lo Meo S., Lonsdale S.J., Losito R., Macina D., Marganiec J., Martínez T., Massimi C., Mastinu P., Mastromarco M., Matteucci F., Maugeri E.A., Mendoza E., Mengoni A., Milazzo P.M., Mingrone F., Mirea M., Montesano S., Musumarra A., Nolte R., Oprea A., Patronis N., Pavlik A., Perkowski J., Porrás I., Praena J., Quesada J.M., Rajeev K., Rauscher T., Reifarth R., Riego-Perez A., Romanets Y., Rout P.C., Rubbia C., Ryan J.A., Sabaté-Gilarte M., Saxena A., Schillebeeckx P., Schmidt S., Sedyshev P., Smith A.G., Stamatopoulos A., Tagliente G., Taín J.L., Tassan-Got L., Tsinganis A., Valenta S., Vannini G., Variale V., Vaz P., Ventura A., Vlachoudis V., Vlastou R., Wallner A., Warren S., Weigand M., Weiss C., Wolf C., Woods P.J., Wright T., Žugec P. [Shedding light on the origin of <sup>204</sup>Pb, the heaviest s-process-only isotope in the solar system](#)  
Physical Review Letters **133**, 052702-1-052702-8 (2024)

Casco M.E., Grätz S., Zhang E., Jiménez-Ruiz M., Borchardt L. [Inelastic neutron scattering of methane hydrate confined in hydrophilic and hydrophobic porous model carbons](#)  
Journal of Physical Chemistry C **128**, 10281-10289 (2024)

Cascos V., Chivite Lacaba M., Biskup N., Fernández-Díaz M.T., Alonso J.A. [SrMo<sub>0.9</sub>O<sub>3.6</sub> Perovskite with segregated Ru nanoparticles performing as anode in solid oxide fuel cells](#)  
ACS Applied Materials & Interfaces **16**, 17474-17482 (2024)

- Caselli L., Du G., Micciulla S., Traini T., Sebastiani F., Diedrichsen R.G., Köhler S., Skoda M.W.A., van der Plas M.J.A., Malmsten M. [Photocatalytic degradation of bacterial lipopolysaccharides by peptide-coated TiO<sub>2</sub> nanoparticles](#)  
ACS Applied Materials & Interfaces **16**, 60056-60069 (2024)
- Caselli L., Köhler S., Schirone D., Humphreys B., Malmsten M. [Conformational control of antimicrobial peptide amphiphilicity: consequences for boosting membrane interactions and antimicrobial effects of photocatalytic TiO<sub>2</sub> nanoparticles](#)  
Physical Chemistry Chemical Physics **26**, 16529-16539 (2024)
- Caselli L., Parra-Ortiz E., Micciulla S., Skoda M.W.A., Häffner S.M., Nielsen E.M., van der Plas M.J.A., Malmsten M. [Boosting membrane interactions and antimicrobial effects of photocatalytic titanium dioxide nanoparticles by peptide coating](#)  
Small **20**, 2309496-1-2309496-6 (2024)
- Caselli L., Traini T., Micciulla S., Sebastiani F., Köhler S., Nielsen E.M., Diedrichsen R.G., Skoda M.W.A., Malmsten M. [Antimicrobial peptide coating of TiO<sub>2</sub> nanoparticles for boosted antimicrobial effects](#)  
Advanced Functional Materials **1**, 2405047-1-2405047-16 (2024)
- Caviglia B., Di Bari D., Timr S., Guiral M., Giudici-Orticoni M.T., Petrillo C., Peters J., Sterpone F., Paciaroni A. [Decoding the role of the global proteome dynamics for cellular thermal stability](#)  
Journal of Physical Chemistry Letters **15**, 1435-1441 (2024)
- Chabot F., Lionel P., Guétaz L., Rosini S., Morin A. [Tracking the evolution of ionomer film and catalyst material to unravel PEMFC performance degradation](#)  
Journal of the Electrochemical Society **171**, 124506-1-124506-15 (2024)
- Chakraborty A., Mukhopadhyay S., Dey A., Biswas D.C. [Exploring fission dynamics through fission fragment spectroscopy](#)  
Journal of Physics: Conference Series **2919**, 012035-1-012035-10 (2024)
- Cheikh Sleiman H., Moreira M.H., Tengattini A., Dal Pont S. [From tomographic imaging to numerical simulations: an open-source workflow for true morphology mesoscale FE meshes](#)  
RILEM Technical Letters **8**, 158-164 (2024)
- Chen R., Figueroa-Feliciano E., Bratrud G., Chang C.L., Chaplinsky L., Cudmore E., Van De Pontseele W., Formaggio J.A., Harrington P., Hertel S.A., Hong Z., Kennard K.T., Li M., Lisovenko M., Mateo L.O., Mayer D.W., Novati V., Patel P.K., Pinckney H.D., Raha N., Reyes F.C., Rodríguez A., Schmidt B., Stachurska J., Veihmeyer C., Wang G., Winslow L., Yefremenko V.G., Zhang J. [Modeling and characterization of TES-based detectors for the Ricochet experiment](#)  
Journal of Low Temperature Physics **215**, 217-224 (2024)
- Chevreur F., Létiche M., Vorobiev A., Wolff M., Chapelon L.L. [Moisture diffusion in PECVD a-SiO<sub>x</sub>N<sub>y</sub>:H and a-SiO<sub>x</sub>:H coated on polymer resins: A neutron reflectometry study](#)  
ACS Applied Electronic Materials **6**, 4864-4868 (2024)

Chiappisi L. [Liquid foams: New insights and perspectives from neutron and synchrotron scattering experiments](#)

Current Opinion in Colloid & Interface Science **72**, 101823-1-101823-12 (2024)

Chivite Lacaba M., García Fernandes A., Prado-Gonjal J., Alonso J.A., Cascos V. [Sr<sub>0.7</sub>R<sub>0.3</sub>CoO<sub>3-δ</sub> \(R = Gd, Eu, and Sm\) perovskites infiltrated with Pd: Enhancing the performance as cathode materials in solid oxide fuel cells](#)

ACS Applied Energy Materials **7**, 8726-8734 (2024)

Chivite-Lacaba M., Prado-Gonjal J., Alonso J.A., Fernández-Díaz M.T., Cascos V. [High performance of SrCo<sub>1-x</sub>Zr<sub>x</sub>O<sub>3-δ</sub> perovskite cathodes for IT-SOFCs](#)

Ceramics International **50**, 26929-26937 (2024)

Chivite-Lacaba M., Prado-Gonjal J., Alonso J.A., Fernández-Díaz M.T., Cascos V. [Sr<sub>0.90</sub>Ba<sub>0.10</sub>Co<sub>0.95</sub>Ti<sub>0.05</sub>O<sub>3-δ</sub> cathode as an improved electrode for IT-SOFCs](#)

Ceramics International **50**, 45640-45649 (2024)

Chivite-Lacaba M., Prado-Gonjal J., Troncoso L., Alonso J.A., Cascos V. [SrCo<sub>0.50</sub>Fe<sub>0.40</sub>Ir<sub>0.10</sub>O<sub>3-δ</sub> decorated with Pd and La<sub>0.8</sub>Sr<sub>0.2</sub>Ga<sub>0.83</sub>Mg<sub>0.17</sub>O<sub>3-δ</sub>: A cleaner electrode for intermediate-temperature solid oxide fuel cells with reduced cobalt content](#)

ACS Applied Energy Materials **7**, 986-996 (2024)

Chojnacki M., Kulesz K., Michelon I., Azaryan N., Barbero E., Crepieux B., Lică R., Murawski L., Ziemba M., Piersa-Siłkowska M., Vitulova K., Korgul A., Jolivet R.B., Prokopowicz R., Köster U., Kowalska M. [Production of <sup>129m</sup>Xe and <sup>131m</sup>Xe via neutron activation of <sup>128</sup>Xe and <sup>130</sup>Xe at ILL-RHF and NCBJ-MARIA high-flux reactors](#)

Applied Radiation and Isotopes **205**, 111174-1-111174-8 (2024)

Chrysanthou A., Bosch-Fortea M., Nadal C., Zarbakhsh A., Gautrot J.E. [Interfacial mechanics of β-casein and albumin mixed protein assemblies at liquid-liquid interfaces](#)

Journal of Colloid and Interface Science **674**, 379-391 (2024)

Ciconali G., Conca F., Bottoni S., Leoni S., Fornal B., Sferrazza M., Michelagnoli C., Mărginean N., Corbari G., Luciani M., Colombi G., Crespi F., Cieplicka N., Iskra Ł., Jentschel M., Koester U., Borcea R., Boromiza M., Călinescu S., Clisu-Stan C., Costache C., Filipescu D., Florea N., Gheorghe I., Ionescu A., Mărginean R., Mihai C., Mihai R.E., Neacșu C., Negret A., Niță C.R., Olăcel-Coman A., Pascu S., Petrone C., Stan L., Sotty C., Turturică A., Turturică G., Toma S., Ujeniuc S. [Search for shape coexistence in selenium isotopes around N=50](#)

Acta Physica Polonica B Proceedings Supplement **17**, 3-A5.1-3-A5.6 (2024)

Cieplicka-Oryńczak N., Michelagnoli C., Fornal B., Leoni S., Benzoni G., Bottoni S., Colombi G., Crespi F.C.L., Dudouet J., Iskra Ł.W., Jentschel M., Kim Y.H., Köster U., Mărginean N., Mărginean R., Mihai C., Mutti P., Pacyna J., Pietralla N., Ruiz-Martinez E., Sferrazza M., Sieber J. [Low-spin structures of the <sup>205</sup>Pb and <sup>207</sup>Pb nuclei studied by γ-ray spectroscopy in thermal neutron capture reactions](#)

Acta Physica Polonica B Proceedings Supplement **17**, 3-A9.1-3-A9.8 (2024)

Clavelin A., Le Thanh D., Bobrikov I., Fehse M., Drewett N.E., López G.A., Saurel D., Galceran M. [Dehydration conditions and ultrafast rehydration of Prussian White: Phase transition dynamics and implications for sodium-ion batteries](#)  
ACS Materials Letters **6**, 5208-5214 (2024)

Clavier B., Czamler V., Dubois M., Henry K., Nesvizhevsky V., Petit E. [Comparison of graphites intercalated with fluorine as slow neutron reflectors](#)  
Materials **17**, 5972-1-5972-12 (2024)

Coak M.J., Götze K., Northam De La Fuente T., Castelnovo C., Tidey J.P., Singleton J., Boothroyd A.T., Prabhakaran D., Goddard P.A. [Magnetotransport of Sm<sub>2</sub>Ir<sub>2</sub>O<sub>7</sub> across the pressure-induced quantum-critical phase boundary](#)  
npj Quantum Materials **9**, 17-1-17-12 (2024)

Coulter S.M., Pentlavalli S., An Y., Vora L.K., Cross E.R., Moore J.V., Sun H., Schweins R., McCarthy H.O., Lavery G. [In situ forming, enzyme-responsive peptoid-peptide hydrogels: An advanced long-acting injectable drug delivery system](#)  
Journal of the American Chemical Society **146**, 21401-21416 (2024)

Cozzolino S., Gutfreund P., Vorobiev A., Devishvili A., Greaves A., Nelson A., Yepuri N., Luengo G.S., Rutland M.W. [Mimicking the hair surface for neutron reflectometry](#)  
Soft Matter **20**, 7634-7645 (2024)

Crawford C.A., Hiley C.I., Scott C.A.M., Ritter C., Lees M.R., Bristowe N.C., Walton R.I., Senn M.S. [The interplay of electronic configuration and anion ordering on the magnetic behavior of hydroxyfluoride diaspores](#)  
Inorganic Chemistry **63**, 9184-9194 (2024)

Cristiglio V., Feng S., Sztucki M., Yuan X., Shalaev E. [Two populations of protein molecules detected by small-angle neutron and X-ray scattering \(SANS and SAXS\) in lyophilized protein:lyoprotector \(disaccharide\) systems](#)  
Soft Matter **20**, 3897-3900 (2024)

Cristiglio V., Pozdnyakova I., Bytchkov A., Cuello G.J., Jahn S., Zanghi D., Brassamin S., Drewitt J.W.E., Hennem L. [Liquid structure of magnesium aluminates](#)  
Materials **17**, 6173-1-6173-13 (2024)

Cui J., Shi K., Sun Y., Ma Z., Colin C.V., Xu S., Deng S., Lu H., Yan J., Yuan X., Wang B., Cheng J., Bordet P., Wang C. [Manipulation of magnetic structures and pressure-induced strong correlation properties in the frustrated Mn<sub>3</sub>GaN antiperovskite](#)  
Physical Review B **110**, 094438-1-094438-8 (2024)

da Cruz Pinha Barbosa V., Maharaj D.D., Cronkright Z.W., Wang Y., Cong R., García E., Reyes A.P., Yan J., Ritter C., Mitrović V.F., Gaulin B.D., Greedan J.E., Woodward P.M. [Exploring the links between structural distortions, orbital ordering, and multipolar magnetic ordering in double perovskites containing Re\(VI\) and Os\(VII\)](#)  
Chemistry of Materials **36**, 11478-11489 (2024)

Dahl M., Gommès C.J., Haverkamp R., Wood K., Prévost S., Schröer P., Omasta T., Stank T.J., Hellweg T., Wellert S. [Confinement induced change of microemulsion phase structure in controlled pore glass \(CPG\) monoliths](#)  
RSC Advances **14**, 28272-28284 (2024)

Dahl M., Holderer O., Haverkamp R., Hoffmann I., Wood K., Hübner J., Hellweg T., Wellert S. [Confined bicontinuous microemulsions: nanoscale dynamics of the surfactant film](#)  
Soft Matter **20**, 8692-8701 (2024)

Damay F., Petit S., Sheptyakov D., Colin C.V., Suard E., Rols S., Embs J., Stühr U., Bounoua D., Demortier O., Decorse C. [Influence of Dy<sup>3+</sup> environment on magnetic anisotropy and magnetocaloric effect in Dy<sub>3</sub>B<sub>2</sub>C<sub>3</sub>O<sub>12</sub> \(B=In,Sc,Te;C=Ga,Al,Li\) garnets](#)  
Physical Review B **109**, 014419-1-014419-12 (2024)

Danner A., Geerits N., Lemmel H., Wagner R., Sponar S., Hasegawa Y. [Three-path quantum Cheshire cat observed in neutron interferometry](#)  
Communications Physics **7**, 14-1-14-13 (2024)

Danner A., Masiello I.V., Dvorak A., Kersten W., Lemmel H., Wagner R., Hasegawa Y. [Simultaneous path weak-measurements in neutron interferometry](#)  
Scientific Reports **14**, 25994-1-25994-11 (2024)

Dashjav E., Gerhards M.T., Klein F., Grüner D., Hansen T.C., Rohrer J., Albe K., Fattakhova-Rohlfing D., Tietz F. [Phase-field determination of NaSICON materials in the quaternary system Na<sub>2</sub>O-P<sub>2</sub>O<sub>5</sub>-SiO<sub>2</sub>-ZrO<sub>2</sub>: II. Glass-ceramics and the phantom of excessive vacancy formation](#)  
Next Energy **4**, 100130-1-100130-14 (2024)

Dazas B., Jiménez-Ruiz M., Grégoire B., Hubert F., Lanson B., Tertre E., Michot L., Ferrage E. [Molecular hydrophobicity signature in charged bidimensional clay materials](#)  
Journal of Physical Chemistry A **128**, 10358-10371 (2024)

Minelli de Carvalho M., Laurini L.H., Atukpor E., Naviner L., Possamai Bastos R. [Impact of scaling up the sensor sampling frequency on the reliability of edge processing systems in tolerating soft errors caused by neutrons](#)  
IEEE Sensors Letters **8**, 7004304-1-7004304-4 (2024)

De Francesco A., Formisano F., Scaccia L., Guarini E., Bafile U., González M.A., Alatas A., Lynch S.T., Cunsolo A. [Fingerprints of hydrogen bonding in the terahertz dynamics of ethanol and water: An inelastic X-ray scattering study](#)  
Journal of Chemical Physics **159**, 244501-1-244501-10 (2023)

de Irujo-Labalde X., Goto M., Urones-Garrote E., Amador U., Ritter C., Amano-Patino M., Shimakawa Y., García-Martín S. [Charge evolution in the Y<sub>0.9</sub>Ba<sub>1.7</sub>Ca<sub>2.4</sub>Fe<sub>5</sub>O<sub>14.7</sub> layered perovskite](#)  
Chemistry of Materials **36**, 5184-5191 (2024)

De Lucia M., Dal Bo P., Di Giorgi E., Lari T., Puglia C., Paolucci F. [Transition edge sensors: Physics and applications](#)  
Instruments **8**, 47-1-47-65 (2024)

Delgado F.S., Cañadillas-Delgado L., Rodríguez-Carvajal J., Fabelo O., Pasán J. [Uncovering the mechanisms of long-range magnetic order in  \$\[\text{Mn}\(\text{mal}\)\(\text{H}\_2\text{O}\)\]\_n\$ : Insights from microscopic and macroscopic magnetic analysis](#)  
Magnetochemistry **10**, 109-1-109-19 (2024)

Denk P., Matthews L., Prévost S., Zemb T., Kunz W. [A dilute nematic gel produced by intracellular segregation of two polyoxyethylene alkyl ether carboxylic acids](#)  
Journal of Colloid and Interface Science **659**, 833-848 (2024)

Di Cataldo S., Rescigno M., Monacelli L., Ranieri U., Gaál R., Klotz S., Ollivier J., Koza M.M., De Michele C., Bove L.E. [Giant splitting of the hydrogen rotational eigenenergies in the  \$\text{C}\_2\$  filled ice](#)  
Physical Review Letters **133**, 236101-1-236101-6 (2024)

Diatta A., Colin C.V., Viennois R., Beaudhuin M., Haines J., Hermet P., van der Lee A., Konczewicz L., Armand P., Rouquette J. [BaCoO<sub>2</sub> with tetrahedral cobalt coordination: The missing element to understand energy storage and conversion applications in BaCoO<sub>3- \$\delta\$</sub> -based materials](#)  
Journal of the American Chemical Society **146**, 15027-15035 (2024)

Dikaia O., Luchini A., Nylander T., Grunin A., Vorobiev A., Goikhman A. [Magnetic contrast layers with functional SiO<sub>2</sub> coatings for soft-matter studies with polarized neutron reflectometry](#)  
Journal of Applied Crystallography **57**, 1145-1153 (2024)

Dorri S. [The route towards perfection of multifunctional artificial CrB<sub>2</sub>/TiB<sub>2</sub> superlattices: stoichiometry, structure, and layer definition](#)  
PhD Thesis (2024)

Dorri S., Ghafoor N., Palisaitis J., Stendahl S., Devishvili A., Vorobiev A., Eriksson F., Persson P.O.Å., Birch J. [Enhanced quality of single crystal CrB<sub>x</sub>/TiB<sub>y</sub> diboride superlattices by controlling boron stoichiometry during sputter deposition](#)  
Applied Surface Science **655**, 159606-1-159606-6 (2024)

dos Santos Silva Araujo L., Chiappisi L. [Effect of hydrostatic pressure on the supramolecular assembly of surfactant-cyclodextrin inclusion complexes](#)  
Physical Chemistry Chemical Physics **26**, 24246-24249 (2024)

Doumenc G., Courant B., Couturier L., Paillard P., Girault B., Pirling T., Cabeza S., Moya M.J., Gloaguen D. [Investigation of residual stresses and modeling of tensile deformation in wire-arc additive manufactured 6061 aluminum alloy: Diffraction and elastoplastic self-consistent model](#)  
Materials Science and Engineering A **890**, 145891-1-145891-12 (2024)

Drago V.N., Devos J.M., Blakeley M.P., Forsyth V.T., Parks J.M., Kovalevsky A., Mueser T.C. [Neutron diffraction from a microgravity-grown crystal reveals the active site hydrogens of the internal aldimine form of tryptophan synthase](#)  
Cell Reports Physical Science **5**, 101827-1-101827-20 (2024)

Duc F., Qureshi N., Suwa H., Ressouche E., Songvilay M., Prokhnenko O., Gazizulina A., Bourdarot F., Tsurkan V., Zherlitsyn S., Prodan L., Bertin A., Schneidewind A., Hoser A., Uhlarz M., Herrmannsdörfer T., Wosnitza J., Simonet V., Chattopadhyay S. [Field-driven spin structure evolution in MnCr<sub>2</sub>S<sub>4</sub>: A high-field single-crystal neutron diffraction study](#)  
Physical Review B **110**, 214416-1-214416-14 (2024)

Dudouet J., Colombi G., Reygadas Tello D., Michelagnoli C., Dao D.D., Nowacki F., Abushawish M., Clément E., Costache C., Duchêne G., Kandzia F., Lemasson A., Mărginean N., Mărginean R., Mihai C., Pascu S., Rejmund M., Rezynkina K., Stezowski O., Turturică A., Ujenic S., Astier A., de Angelis G., de France G., Delafosse C., Deloncle I., Gadea A., Gottardo A., Jones P., Konstantinopoulos T., Kuti I., Le Blanc F., Lenzi S.M., Lozeva R., Million B., Pérez-Vidal R.M., Petrache C.M., Ralet D., Redon N., Schmitt C., Sohler D., Verney D. [High-resolution spectroscopy of neutron-rich Br isotopes and signatures for a prolate-to-oblate shape transition at N=56](#)  
Physical Review C **110**, 034304-1-034304-16 (2024)

Dutta S., Nossov A., Galarneau A., Didi Y., Said B., Denoyel R., Wernert V., Coasne B., Guenneau F. [Apparent anomalous temperature dependence of self-diffusion studied by pulsed-field gradient nuclear magnetic resonance and thermodynamic modeling](#)  
Journal of Physical Chemistry Letters **15**, 3276-3284 (2024)

Elstone N.S., Shaw E.V., Shimizu K., Lai J., Demé B., Lane P.D., Costen M.L., McKendrick K.G., Youngs S., Rogers S.E., Canongia Lopes J.N., Bruce D.W., Slattery J.M. [Chain-length dependent organisation in mixtures of hydrogenous and fluorinated ionic liquids](#)  
Faraday Discussions **253**, 55-78 (2024)

Fabelo O., González-Platas J., Savvin S., Botella P., Errandonea D. [The effect of pressure in the crystal and magnetic structure of FeWO<sub>4</sub>](#)  
Journal of Applied Physics **136**, 175901-1-175901-10 (2024)

Facheris L., Nabi S.D., Povarov K.Y., Yan Z., Moshe A.G., Nagel U., Rõõm T., Podlesnyak A., Ressouche E., Beauvois K., Stewart J.R., Manuel P., Khalyavin D., Orlandi F., Zheludev A. [Magnetic field induced phases and spin Hamiltonian in Cs<sub>2</sub>CoBr<sub>4</sub>](#)  
Physical Review B **109**, 104433 -1-104433 -13 (2024)

Fallarini S., Papi F., Licciardi F., Natali F., Lombardi G., Maestrelli F., Nativi C. [Niosomes as biocompatible scaffolds for the multivalent presentation of tumor-associated antigens \(TACAs\) to the immune system](#)  
Bioconjugate Chemistry **34**, 181-192 (2023)

Fally M., Klepp J., Pruner C., Hadden E., Bianco A., Kohlbrecher J., Filter H., Jenke T., Tomita Y. [Photosensitive materials for neutron optics](#)  
Proceedings of SPIE **13015**, 130150O-1-130150O-12 (2024)

Fameau A.L., Cousin F., Dobryden I., Dutot C., Le Coeur C., Douliez J.P., Prévost S., Binks B.P., Saint-Jalmes A. [12-hydroxystearic acid-mediated \*in-situ\* surfactant generation: A novel approach for organohydrogel emulsions](#)  
Journal of Colloid and Interface Science **672**, 133-141 (2024)

- Farrando-Perez J., Missyul A., Martín-Calvo A., Abreu-Jauregui C., Ramírez-Cerezo V., Daemen L., Cheng Y.Q., Ramirez-Cuesta A.J., Calero S., Carrillo-Carrión C., Silvestre-Albero J. [Molecular recognition-induced structural flexibility in ZIF-71](#)  
Journal of Materials Chemistry A **12**, 28975-28984 (2024)
- Fauquignon M., Solberg A., Porcar L., Chapel J.P., Christensen B.E., Schätz C. [Micellar nanogels from alginate-based diblock copolysaccharides](#)  
Biomacromolecules **25**, 6555-6569 (2024)
- Favaretto C., Grundler P.V., Talip Z., Köster U., Johnston K., Busslinger S.D., Sprung P., Hillhouse C.C., Eichler R., Schibli R., Müller C., van der Meulen N.P. [Terbium-149 production: A focus on yield and quality improvement towards preclinical application](#)  
Scientific Reports **14**, 3284-1-3284-12 (2024)
- Felicetti R., Yarmohammadian R., Dal Pont S., Tengattini A. [Fast vapour migration next to a depressurizing interface: A possible driving mechanism of explosive spalling revealed by neutron imaging](#)  
Cement and Concrete Research **180**, 107508-1-107508-12 (2024)
- Ferreira de Souza N., Picard C., Franco L.F.M., Coasne B. [Thermal conductivity of a fluid-filled nanoporous material: Underlying molecular mechanisms and the rattle effect](#)  
Journal of Physical Chemistry B **128**, 2516-2527 (2024)
- Fischer H., Käding C., Lemmel H., Sponar S., Pitschmann M. [Search for dark energy with neutron interferometry](#)  
Progress of Theoretical and Experimental Physics **2024**, 023E02-1-023E02-17 (2024)
- Fischer H., Käding C., Sedmik R.I.P., Abele H., Brax P., Pitschmann M. [Search for environment-dependent dilatons](#)  
Physics of the Dark Universe **43**, 101419-1-101419-8 (2024)
- Fischer J., Porcar L., Cabral J.T., Sottmann T. [Using an amphiphilic diblock copolymer to understand the shear-induced structural transformation of bicontinuous microemulsions](#)  
Journal of Colloid and Interface Science **671**, 124-133 (2024)
- Fogh E., Gariat G., Zayed M.E., Piovano A., Boehm M., Steffens P., Safiulina I., Hansen U.B., Klotz S., Soh J.R., Pomjakushina E., Mila F., Normand B., Rønnow H.M. [Spin waves and three dimensionality in the high-pressure antiferromagnetic phase of SrCu<sub>2</sub>\(BO<sub>3</sub>\)<sub>2</sub>](#)  
Physical Review Letters **133**, 246702-1-246702-7 (2024)
- Frandsen B.A., Fischer H.E. [A new spin on material properties: Local magnetic structure in functional and quantum materials](#)  
Chemistry of Materials **36**, 9089-9106 (2024)
- Gainza J., López C.A., Serrano-Sánchez F., Rodrigues J.E.F.S., Rosa A.D., Sobrados M.I., Nemes N.M., Biskup N., Fernández-Díaz M.T., Martínez J.L., Alonso J.A. [Evidence of hydrogen content and monovalent Ni oxidation state in non-superconducting bulk anchored infinite-layer nickelates](#)  
Cell Reports Physical Science **4**, 101724-1-101724-15 (2023)

Galvagnion C., Barclay A., Makasewicz K., Marlet F.R., Moulin M., Devos J.M., Linse S., Martel A., Porcar L., Sparr E., Pedersen M.C., Roosen-Runge F., Arleth L., Buell A.K. [Structural characterisation of  \$\alpha\$ -synuclein–membrane interactions and the resulting aggregation using small angle scattering](#)  
Physical Chemistry Chemical Physics **26**, 10998-11013 (2024)

Gammond L.V.D., Zeidler A., Youngman R.E., Fischer H.E., Bull C.L., Salmon P.S. [Transformations to the aluminum coordination environment and network polymerization in amorphous aluminosilicates under pressure](#)  
Journal of Chemical Physics **161**, 074503-1-074503-21 (2024)

García-Muñoz J.L., Zhang X., Subías G., Blasco J. [Symmetry, magnetic transitions and multiferroic properties of B-site-ordered  \$A\_2MnB'O\_6\$  perovskites \( \$B' = \[Co, Ni\]\$ \)](#)  
Acta Crystallographica B **80**, 665-675 (2024)

Gatta G.D., Cannaò E., Comboni D., Battiston T., Fabelo O. [A neutron diffraction study of the hydrous borate inderborite,  \$CaMg\[B\_3O\_3\(OH\)\_5\]\_2\(H\_2O\)\_4 \cdot 2H\_2O\$](#)   
American Mineralogist **109**, 1258-1265 (2024)

Geers M., Fabelo O., Cliffe M.J., Cañadillas-Delgado L. [Tuning structural modulation and magnetic properties in metal-organic coordination polymers  \$\[CH\_3NH\_3\]Co\_xNi\_{1-x}\(HCOO\)\_3\$](#)   
IUCrJ **11**, 910-920 (2024)

Geers M., Gill T.B., Burnett A.D., Bassey E.N., Fabelo O., Cañadillas-Delgado L., Cliffe M.J. [Magnetic structure and properties of the honeycomb antiferromagnet  \$\[Na\(OH\_2\)\_3\]Mn\(NCS\)\_3\$](#)   
Physical Chemistry Chemical Physics **26**, 15844-15849 (2024)

Gerelli Y., Camerin F., Bochenek S., Schmidt M.M., Maestro A., Richtering W., Zaccarelli E., Scotti A. [Softness matters: effects of compression on the behavior of adsorbed microgels at interfaces](#)  
Soft Matter **20**, 3653-3665 (2024)

Gilbert J., Ermilova I., Fornasier M., Skoda M., Fragneto G., Swenson J., Nylander T. [On the interactions between RNA and titrateable lipid layers: Implications for RNA delivery with lipid nanoparticles](#)  
Nanoscale **16**, 777-794 (2024)

Ginot L., Ben Ghazi-Bouvrande J., Prévost S., Pellet-Rostaing S., Dourdain S. [Lead extraction in a functionalized and permeable silica-based porous liquid](#)  
Journal of Physical Chemistry B **128**, 2550-2558 (2024)

Giri S., Dey S., Suard E., Clarke S.J.  [\$Sr\_2MnO\_2Na\_{1.6}Se\_2\$ : A metamagnetic layered oxychalcogenide synthesized by reductive Na intercalation to break  \$\[Se\_2\]^{2-}\$  perselenide dimer units](#)  
Chemistry of Materials **36**, 5730-5740 (2024)

Golosovsky I.V., Mukhin A.A., Skumryev V., Ressouche E., Ivanov V.Y., Gudim I.A. [Hidden magnetic instability in the substituted multiferroics  \$\(Nd,Tb\)Fe\_3\(BO\_3\)\_4\$](#)   
Physical Review B **109**, 014421-1-014421-7 (2024)

- Gomez-Guzman J.M., Opel M., Veres T., Link P., Bottyán L. [Structural, electrical and magnetic properties of reactively DC sputtered Cu and Ti thin films. Application to Cu/Ti neutron supermirrors for low spin-flip applications](#)  
Nuclear Instruments and Methods in Physics Research A **1059**, 169005-1-169005-11 (2024)
- Gommes C.J., Dubey P.S., Stadler A.M., Wu B., Czakkel O., Porcar L., Jaksch S., Frielinghaus H., Holderer O. [Gaussian model of fluctuating membrane and its scattering properties](#)  
Physical Review E **110**, 034608-1-034608-15 (2024)
- Granek R., Hoffmann I., Kelley E.G., Nagao M., Vlahovska P.M., Zilman A. [Dynamic structure factor of undulating vesicles: finite-size and spherical geometry effects with application to neutron spin echo experiments](#)  
European Physical Journal E **47**, 12-1-12-14 (2024)
- Grillo I., Prévost S., Zemb T. [Insertion of anionic synthetic clay in lamellar surfactant phases](#)  
European Physical Journal E **47**, 55-1-55-14 (2024)
- Guan T., Sägesser C., Villiger R., Zychowski L., Kohlbrecher J., Dimpler J., Mathys A., Rühls P., Fischer P., Matsarskaia O. [In situ studies of plant-based meat analog texturization](#)  
Food Hydrocolloids **155**, 110215-1-110215-11 (2024)
- Guarín J.R., Frontera C., Oró-Solé J., Colombel B., Ritter C., Fauth F., Fontcuberta J., Fuentès A. [Anionic and magnetic ordering in rare earth tantalum oxynitrides with an  \$n = 1\$  Ruddlesden-Popper structure](#)  
Chemistry of Materials **36**, 5160-5171 (2024)
- Gubina A.S., Zhitomirsky M.E. [Metamagnetism and tricriticality in the heavy-fermion ferromagnet URhGe](#)  
Physical Review B **110**, 155159-1-155159-11 (2024)
- Guchhait S., Painganoor A., Islam S.S., Sichelschmidt J., Le M.D., Christensen N.B., Nath R. [Magnetic and crystal electric field studies of the rare earth based square lattice antiferromagnet NdKNaNbO<sub>5</sub>](#)  
Physical Review B **110**, 144434-1-144434-13 (2024)
- Guenet J.M. [Contribution of neutron diffraction to the study of crystallo-solvates \(molecular compounds\) from polymers and from supramolecular polymers](#)  
Polymer **293**, 126638-1-126638-7 (2024)
- Gulati A., Douglas J.F., Matsarskaia O., Lopez C.G. [Influence of counterion type on the scattering of a semiflexible polyelectrolyte](#)  
Soft Matter **20**, 8610-8620 (2024)
- Gupta G., Bhalerao S., Bodek K., De Keukeleere L., Hegde P., Łojek K., Przygodzka Z., Ries D., Rozpędzik D., Severijns N., Soldner T., Young A.R., Zejma J. [Development of electron detectors for the BRAND experiment](#)  
Nuclear Instruments and Methods in Physics Research A **1069**, 169907-1-169907-2 (2024)

Gustschin A., Han Y., Losko A., Wolfertz A., Hussey D.S., Szentmiklósi L., Kis Z., Trtik P., Boillat P., Kaestner A., Strobl M., Tengattini A., Helfen L., Schulz M. [Event-based high-resolution neutron image formation analysis using intensified CMOS cameras](#)  
Scientific Reports **14**, 26941-1-26941-11 (2024)

Gutiérrez-Martin D., Varela A., Hernando M., Torres-Pardo A., Matesanz E., Gómez-Recio I., González-Calbet J.M., Fernández-Díaz M.T., Calvino J.J., Cauqui M.A., Yeste M.P., Parras M. [Exploring reversible redox behavior in the 6H-BaFeO<sub>3-δ</sub> \(0 < δ < 0.4\) system: Impact of Fe<sup>3+</sup>/Fe<sup>4+</sup> ratio on CO oxidation](#)  
Inorganic Chemistry **63**, 8908-8918 (2024)

Hack J., Ziesche R., Fransson M., Suter T., Helfen L., Couture C., Kardjilov N., Tengattini A., Shearing P., Brett D. [Understanding water dynamics in operating fuel cells by operando neutron tomography: investigation of different flow field designs](#)  
Journal of Physics: Energy **6**, 025021-1-025021-15 (2024)

Hadden E., Fally M., Iso Y., Jenke T., Klepp J., Kume A., Umemoto K., Tomita Y. [Holographic nanodiamond–polymer composite grating with unprecedented slow-neutron refractive index modulation amplitude](#)  
Applied Physics Letters **124**, 071901-1-071901-6 (2024)

Hajizadeh M., Golub M., Moldenhauer M., Matsarskaia O., Martel A., Porcar L., Maksimov E., Friedrich T., Pieper J. [Solution structures of two different FRP-OCP complexes as revealed via SEC-SANS](#)  
International Journal of Molecular Sciences **25**, 2781-1-2781-17 (2024)

Hall T., Reynolds E. [Characterisation of the FiFi detector and analysis of ILL data](#)  
Master Project (2024)

Hamze L., Suard E., Joubert O., Quarez E. [Synthesis and temperature dependence of the crystal structure of proton conductor BaZr<sub>0.1</sub>Ce<sub>0.7</sub>Y<sub>0.1</sub>Yb<sub>0.1</sub>O<sub>3-δ</sub> \(BZCYYb1711\) by combined neutron and X-ray diffraction](#)  
Solid State Ionics **417**, 116682-1-116682-10 (2024)

Hanna A.R.N., Islam A.T.M.N., Ritter C., Luther S., Feyerherm R., Lake B. [Growth of Ba<sub>2</sub>CoWO<sub>6</sub> single crystals and their magnetic, thermodynamic and electronic properties](#)  
Journal of Physics: Condensed Matter **36**, 505801-1-505801-9 (2024)

Hansen M.F., Layek S., Vaney J.B., Chaix L., Suchomel M.R., Mikolasek M., Garbarino G., Chumakov A., Ruffer R., Nassif V., Hansen T., Elkaïm E., Pelletier T., Mayaffre H., Bernardini F., Sulpice A., Núñez-Regueiro M., Rodière P., Cano A., Tencé S., Toulemonde P., Julien M.H., D'Astuto M. [Magnetic and structural properties of the iron silicide superconductor LaFeSiH](#)  
Physical Review B **109**, 174523-1-174523-14 (2024)

Happl B., Balber T., Heffeter P., Denk C., Welch J.M., Köster U., Alliot C., Bonraisin A.C., Brandt M., Haddad F., Sterba J.H., Kandioller W., Mitterhauser M., Hacker M., Keppler B.K., Mindt T.L. [Synthesis and preclinical evaluation of BOLD-100 radiolabeled with ruthenium-97 and ruthenium-103](#)  
Dalton Transactions **53**, 6031-6040 (2024)

- Hardt M., Honnigfort C., Carrascosa-Tejedor J., Braun M.G., Winnall S., Glikman D., Gutfreund P., Campbell R.A., Braunschweig B. [Photoresponsive arylazopyrazole surfactant/PDADMAC mixtures: reversible control of bulk and interfacial properties](#) *Nanoscale* **16**, 9975-9984 (2024)
- Harvey L., Schweins R., Morfin I., Chahine G., Brotons G., Bouteiller L., Nicol E., Colombani O. [Photo-responsive supramolecular polymer bottle-brushes: The key role of the solvent on self-assembly and responsiveness](#) *Journal of Colloid and Interface Science* **670**, 409-416 (2024)
- Hattingh D.G., James M.N., Schwim F.K., Opperman R., Bernard D., Wedderburn I. [Innovative rotary friction welding of heat exchanger tube nozzles on high pressure headers](#) *International Journal of Pressure Vessels and Piping* **210**, 105263-1-105263-10 (2024)
- Hektor J., Engqvist J., Hall S.A. [evoSegment: 4D image segmentation of microstructural evolution using joint histograms](#) *Tomography of Materials and Structures* **4**, 100023-1-100023-10 (2024)
- Henry K., Colin M., Chambéry G., Vigolo B., Cahen S., Hérold C., Nesvizhevsky V., Le Floch S., Pischedda V., Chen S., Dubois M. [Flexible fluorinated graphite foils with high contents of the  \$\(C\_2F\)\_n\$  phase for slow neutron reflectors](#) *Dalton Transactions* **53**, 9473-9481 (2024)
- Higgins A.M., Gutfreund P., Italia V., Nelson A., Cabral J.T., Hynes E.L. [Hysteresis in phase volumes, compositions and interfacial roughness in model OPV-small-molecule/polymer thin-films](#) *Soft Matter* **20**, 2532-2546 (2024)
- Himanshu H., Rebolini E., Beauvois K., Grenier S., Mercey B., Domenges B., Ouladdiaf B., Lepetit M.B., Simon C. [Nuclear and magnetic structure of an epitaxial  \$La\_{0.67}Sr\_{0.33}MnO\_3\$  film using diffraction methods](#) *Thin Solid Films* **800**, 140411-1-140411-10 (2024)
- Hindié E., Köster U., Champion C., Zanotti-Fregonara P., Morgat C. [Comparative analysis of positron emitters for theranostic applications based on small bioconjugates highlighting  \$^{43}Sc\$ ,  \$^{61}Cu\$  and  \$^{45}Ti\$](#)  *EJNMMI Physics* **11**, 98-1-98-15 (2024)
- Hjalte J., Diehl C., Leung A.E., Poon J.F., Porcar L., Dalglish R., Sjögren H., Wahlgren M., Sanchez-Fernandez A. [Modulating protein unfolding and refolding via the synergistic association of an anionic and a nonionic surfactant](#) *Journal of Colloid and Interface Science* **672**, 244-255 (2024)
- Holm-Dahlin S., Larsen J., Jacobsen H., Rømer A.T., ȚuȚueanu A.E., Ahmad M., Grivel J.C., Scheuermann R., Zimmermann M.V., Boehm M., Steffens P., Niedermayer C., Pedersen K.S., Christensen N.B., Wells B.O., Lefmann K., Udby L. [Field-induced electronic phase separation in the high-temperature superconductor  \$La\_{1.94}Sr\_{0.06}CuO\_{4+y}\$](#)  *Physical Review B* **109**, 174517-1-174517-13 (2024)

Holm-Janás S., Akaki M., Fogh E., Kihara T., Le M.D., Forino P.C., Nikitin S.E., Fennell T., Painganóor A., Vaknin D., Watanabe M., Christensen N.B., Nojiri H., Toft-Petersen R. [Magnetic structure and magnetoelectric properties of the spin-flop phase in LiFePO<sub>4</sub>](#)  
Physical Review B **109**, 174413-1-174413-11 (2024)

Hotton C., Sakhawoth Y., Rollet A.L., Sirieix-Plénet J., Tea L., Combet S., Sharp M., Hoffmann I., Nallet F., Malikova N. [Ion-specific effects in polyelectrolyte solutions: chain-chain interactions, chain rigidity and dynamics](#)  
Comptes Rendus. Chimie **27**, 1-13 (2024)

Houchati M.I., Ferjani H., Smida Y.B., Oueslati A., Chniba-Boudjada N., Fabelo O., Bardeau J.F., Paulus W., Ceretti M., Hamzaoui A.H. [Green luminescence in zero-dimensional lead bromide hybrid material \(C<sub>5</sub>H<sub>9</sub>N<sub>3</sub>\)<sub>2</sub>PbBr<sub>6</sub>: Experimental and theoretical studies](#)  
Journal of Molecular Structure **1295**, 136687-1-136687-10 (2024)

Hoyos Giraldo L., Blandón-Naranjo L., Fouquet P., Mesa Cadavid M. [Controllable synthesis of porous N-doped carbons using aniline and Pluronic F127 micellar system for hydrogen storage and electrochemical applications](#)  
Journal of Porous Materials **31**, 1063-1076 (2024)

Hua L., Shomali A., Zhang C., Coasne B., Derome D., Carmeliet J. [Anisotropic deformation in a polymer slab subjected to fluid adsorption](#)  
Langmuir **40**, 4382-4391 (2024)

Huang G.R., Wang Y., Shinohara Y., Porcar L., Do C., Heller W.T., Chen W.R. [Unbiased particle conformation extraction from scattering spectra using orthonormal basis expansions](#)  
Journal of Applied Crystallography **57**, 140-150 (2024)

Ichikawa Y., Shinohara Y., Go S., Nishibata H., Andó S., Asahi K., Baba H., Fukuda N., Georgiev G., Gradkov A., Imamura K., Kishimoto K., Lozeva R., Mukai M., Niikura M., Nor N.M., Odahara A., Shimizu Y., Si M., Stoychev K., Suzuki H., Tajima M., Takamine A., Takeda H., Takeshige S., Tanaka M., Togano Y., Ueno H., Wakasa T., Yamashita W., Yamazaki H., Yoshimoto M., Daugas J.M. [Nuclear-moment measurement using highly spin-aligned RI beams: Recent activities at RIBF](#)  
Hyperfine Interactions **245**, 26-1-26-6 (2024)

Isha, Bera A.K., Kaur G., Stock C., Chakraborty K., Puphal P., Isobe M., Küster K., Skourski Y., Bhaskaran L., Zvyagin S.A., Luther S., Gronemann J., Kühne H., Salazar Mejia C., Pregelj M., Hansen T.C., Kaushik S.D., Voneshen D., Kulkarni R., Lalla N.P., Yusuf S.M., Thamizhavel A., Yogi A.K. [Sharp quantum phase transition in the frustrated spin-1/2 Ising chain antiferromagnet CaCoV<sub>2</sub>O<sub>7</sub>](#)  
Physical Review Research **6**, L032010-1-L032010-7 (2024)

Islam M., d'Ambrumenil N., Khalyavin D.D., Manuel P., Orlandi F., Ollivier J., Ciomaga Hatnean M., Balakrishnan G., Petrenko O.A. [Magnetic structure, excitations, and field-induced transitions in the honeycomb lattice compound Er<sub>2</sub>Si<sub>2</sub>O<sub>7</sub>](#)  
Physical Review B **109**, 094420-1-094420-11 (2024)

Jacobsen H., Barthkowiak M., Weber T., Stuhr U., Roessli B., Niedermayer C., Staub U. [Phonon dispersion of quantum paraelectric SrTiO<sub>3</sub> in electric fields](#)

Physical Review B **110**, 054302-1-054302-8 (2024)

Jacquet Q., Mozhzhukhina N., Gillespie P.N.O., Wittmann G., Perez Ramirez L., Capone F.G., Rueff J.P., Belin S., Dedryvère R., Stievano L., Matic A., Suard E., Brooks N.B., Longo A., Prezzi D., Lyonnard S., Iadecola A. [A fundamental correlative spectroscopic study on  \$\text{Li}\_{1-x}\text{NiO}\_2\$  and  \$\text{NaNiO}\_2\$](#)

Advanced Energy Materials **14**, 2401413-1-2401413-12 (2024)

Ji Y., Blach T., Radlinski A.P., Vu P., Roshan H., Regenauer-Lieb K. [Environmental cell for USANS/SANS studies with aggressive fluids at high pressures and temperatures](#)

Measurement **235**, 114997-1-114997-14 (2024)

Jimenez J.A.M., Egan J., Randle R.I., Rezig A.O., Orimolade B.O., Ginesi R.E., Schweins R., Riehle M.O., Draper E.R. [Tuning conductivity while maintaining mechanical properties in perylene bisimide hydrogels at physiological pH](#)

Chemical Communications **60**, 3027-3030 (2024)

Jiménez-Ruiz M., Lemishko T., Rey F., Sastre G. [Carbonylation of dimethyl ether in mordenite using Inelastic Neutron Scattering](#)

Microporous and Mesoporous Materials **364**, 112850-1-112850-5 (2024)

Jungclaus A., Górska M., Mikołajczuk M., Acosta J., Taprogge J., Nishimura S., Doornenbal P., Lorusso G., Simpson G.S., Söderström P.A., Sumikama T., Xu Z., Kumar P., Martínez-Pinedo G., Nowacki F., Van Isacker P., Baba H., Browne F., Fukuda N., Gernhäuser R., Gey G., Inabe N., Isobe T., Jung H.S., Kameda D., Kim G.D., Kim Y.K., Kojouharov I., Kubo T., Kurz N., Kwon Y.K., Li Z., Sakurai H., Schaffner H., Shimizu Y., Steiger K., Suzuki H., Takeda H., Vajta Z., Watanabe H., Wu J., Yagi A., Yoshinaga K., Benzoni G., Bönig S., Chae K.Y., Daugas J.M., Drouet F., Gadea A., Ilieva S., Kondev F.G., Kröll T., Lane G.J., Montaner-Pizá A., Moschner K., Naqvi F., Niikura M., Nishibata H., Odahara A., Orlandi R., Patel Z., Podolyák Z., Wendt A. [Excited-state half-lives in  \$^{130}\text{Cd}\$  and the isospin dependence of effective charges](#)

Physical Review Letters **132**, 222501-1-222501-7 (2024)

Karlsson M., Johansson L.G., Mazzei L., Froitzheim J., Wolff M. [Neutron reflectivity in corrosion research on metals](#)

ACS Materials Au **4**, 346-353 (2024)

Kataria A., Kumar R., Adroja D.T., Ritter C., Anand V.K., Hillier A.D., Huddart B.M., Lancaster T., Rols S., Koza M.M., Langridge S., Sundaresan A. [Magnetic structure and crystal-field states of antiferromagnetic  \$\text{CeNiGe}\_3\$ : Neutron scattering and  \$\mu\text{SR}\$  investigations](#)

Physical Review B **110**, 184412-1-184412-12 (2024)

Kellouai W., Barrat J.L., Judeinstein P., Plazanet M., Coasne B. [On De Gennes narrowing of fluids confined at the molecular scale in nanoporous materials](#)

Journal of Chemical Physics **160**, 024113-1-024113-14 (2024)

Khalyavin D.D., Brunt D., Qureshi N., Wildes A.R., Ouladdiaf B., Johnson R.D., Balakrishnan G., Petrenko O.A. [Magnetic ground state of  \$\text{NdB}\_4\$ : Interplay between anisotropic exchange interactions and hidden order on a Shastry-Sutherland lattice](#)

Physical Review B **109**, L220411-1-L220411-7 (2024)

Khoder H., Siboulet B., Ollivier J., Baus-Lagarde B., Rébiscoul D. [How cation-silica surface interactions affect water dynamics in nanoconfined electrolyte solutions](#)  
Journal of Physical Chemistry C **128**, 12558-12565 (2024)

Klicpera M., Michal O., Hovančík D., Carva K., Fabelo Rosa O.R., Orlita M., Sechovský V., Pospíšil J. [Unique magnetic structure of the vdW antiferromagnet VBr<sub>3</sub>](#)  
Journal of Alloys and Compounds **1008**, 176544-1-176544-7 (2024)

Klicpera M., Staško D. [Crystallographic parameters and their systematics within the CeCuAl<sub>3</sub>-related family of intermetallics](#)  
Solid State Sciences **151**, 107529-1-107529-5 (2024)

Klotz S., Amand L., Lelièvre-Berna E., Khasanov R., Elender M., Annighöfer B., Delbes L., Maurice J., Payre C., Doisneau B. [Strong resistance to hydrogen embrittlement of high-performance superalloy MP35N under 200 MPa \(≈30,000 psi\) H<sub>2</sub> gas pressure](#)  
High Pressure Research **44**, 116-126 (2024)

Knafla J.L.L. [Improving and developing analysis methods and investigation of the prolate-to-oblate shape phase transition in <sup>193</sup>Os](#)  
PhD Thesis (2023)

Knafla L., Nomura K., Esmaylzadeh A., Harter A., Jolie J., Karayonchev V., Kim Y.H., Köster U., Ley M., Michelagnoli C., Pfeil A., Régis J.M., von Spee F. [Investigating the prolate-to-oblate shape phase transition: Lifetime measurements and  \$\gamma\$  spectroscopy of the low-lying negative parity structure in <sup>193</sup>Os](#)  
Physical Review C **109**, 014313-1-014313-15 (2024)

Kong X., Hurst M., Helfen L., Gaslain F., Baumbach T., Suhonen H., Morgeneyer T.F. [Ductile shear damage micromechanisms studied by correlative multiscale nanotomography and SEM/EBSD for a recrystallized aluminum alloy 2198 T8](#)  
Journal of Materials Science **59**, 13690-13708 (2024)

Koynarev V.R., Borgos K.K.A., Kohlbrecher J., Porcar L., Nielsen J.E., Lund R. [Antimicrobial peptides increase line tension in raft-forming lipid membranes](#)  
Journal of the American Chemical Society **146**, 20891-20903 (2024)

Král P. [Pressure-driven structural and magnetic transformations in 221 intermetallics](#)  
PhD Thesis (2024)

Král P., Havela L., Staško D., Daisenberger D., Klicpera M., Diviš M., Puente-Orench I., Proschek P., Kaštil J., Dopita M., Prchal J. [Kondo volume collapse in frustrated antiferromagnet: The case of Ce<sub>2</sub>Pd<sub>2</sub>In](#)  
Physical Review Materials **8**, 014401-1-014401-6 (2024)

Kremer R.K., Schnelle W., Eger R., Simon A., Brown P.J., Ouladdiaf B., Neumann K.U. [Antiferromagnetic ordering in the frustrated rare-earth chain systems M<sub>2</sub>Cl<sub>3</sub> \(M = Gd, Tb\)](#)  
Chemistry of Materials **36**, 7036-7045 (2024)

- Kreuzer L.P., Yang F., Evenson Z., Holland-Moritz D., Bernasconi A., Hansen T.C., Blankenburg M., Meyer A., Petry W. [Dynamical and structural properties of undercooled Cu-Ti melts investigated by neutron and x-ray diffraction](#)  
Physical Review B **109**, 174108-1-174108-9 (2024)
- Kreuzgruber E., Wagner R., Geerits N., Lemmel H., Sponar S. [Violation of a Leggett-Garg inequality using ideal negative measurements in neutron interferometry](#)  
Physical Review Letters **132**, 260201-1-260201-6 (2024)
- Kruteva M., Allgaier J., Monkenbusch M., Valiullin R., Hoffmann I., Richter D. [Cooperative dynamics of highly entangled linear polymers within the entanglement tube](#)  
ACS Macro Letters **13**, 335-340 (2024)
- Kuhrts L., Prévost S., Scoppola E., Hirt A.M., Faivre D. [Biomimetic approach for sustainable magnetite nanoparticle synthesis using polycations](#)  
Advanced Functional Materials **34**, 2311856-1-2311856-9 (2024)
- Kulin G.V., Frank A.I., Rebrova N.V., Zakharov M.A., Gutfreund P., Khaydukov Y.N., Ortega L., Roshchupkin D.V., Goray L.I. [New experiment on non-stationary neutron diffraction by a traveling surface acoustic wave](#)  
European Physical Journal B **97**, 194-1-194-7 (2024)
- Kumar D., Pál A., Basak S., Bhattacharjee T., Alam S.S., Gerhard L., Knafla L., Esmaylzadeh A., Ley M., Dunkel F., Schomaker K., Régis J.M., Jolie J., Kim Y.H., Köster U. [Lifetime measurement for the  \$15/2\_1^-\$  and  \$13/2\_1^-\$  levels in  \$^{129}\text{S}\$](#)   
Physical Review C **109**, 024304-1-024304-6 (2024)
- Kuzovnikov M.A., Hansen T., Ivanov A.S., Kolesnikov A.I., Kulakov V.I., Savvin S., Tkacz M. [High-pressure synthesis and neutron scattering study of tantalum hydride  \$\text{TaH}\_{1.23\(5\)}\$  and a tantalum polymorph with A15-type structure](#)  
Physical Review B **110**, 184113-1-184113-10 (2024)
- Lang F., Schmitt J.C., Cabeza S., Pirling T., Fiebig J., Vassen R., Gibmeier J. [IN718 Cold gas repair spray of large cavities - Microstructure and residual stresses](#)  
In “Proceedings of the 10th International Symposium on Superalloy 718 and Derivatives. TMS 2023. The Minerals, Metals & Materials Series” (Springer, 2023) pp.739-753
- Lanovsky R., Bushinsky M., Tereshko N., Savvin S., Efimov V., Sikolenko V., Mantyt'skaya O., Nikitin A. [Interplay between crystal structure, magnetic and electrotransport properties in anion-deficient  \$\text{La}\_{1-x}\text{Sr}\_x\text{Co}\_{1-y}\text{Ni}\_y\text{O}\_{3-\gamma}\$  perovskites](#)  
Physical Review Materials **8**, 114422-1-114422-13 (2024)
- László K., Czakkel O., Domján A., Sáfrán G., Sebestyén Z., Bulátkó A., Villar-Rodil S., Tascón J.M.D., Geissler E. [Water adsorbed in a commercial carbon: Role of nanostructure and surface chemistry](#)  
Carbon **229**, 119465-1-119465-14 (2024)
- Laurell P., Scheie A., Mukherjee C.J., Koza M.M., Enderle M., Tylczynski Z., Okamoto S., Coldea R., Tennant D.A., Alvarez G. [Erratum: Quantifying and controlling entanglement in the quantum magnet  \$\text{Cs}\_2\text{CoCl}\_4\$  \[Phys. Rev. Lett. 127, 037201 \(2021\)\]](#)

Physical Review Letters **130**, 129902(E)-1-129902(E)-2 (2023)

Le Mardelé F., El Mendili A., Zhitomirsky M.E., Mohelsky I., Jana D., Plutnarova I., Sofer Z., Faugeras C., Potemski M., Orlita M. [Transverse and longitudinal magnons in the strongly anisotropic antiferromagnet FePSe<sub>3</sub>](#)

Physical Review B **109**, 134410-1-134410-9 (2024)

Le Thanh D., Guiet A., Suard E., Berthelot R. [Downsizing FeNb<sub>11</sub>O<sub>29</sub> anode material through ultrafast solid-state microwave-assisted synthesis for enhanced electrochemical performance](#)

Journal of Solid State Chemistry **330**, 124444-1-124444-8 (2024)

Leconte P., Belverge D., Bernard D., Chebboubi A., Kessedjian G., Foligno D., Geslot B., Sardet A., Casoli P., Kooyman T., Pèpino A., Domergue C., Doré D., Ledoux X., Mathieu L., Méplan O., Billebaud A., Cheymol B., Marie N., Lecolley F.R., Lecouey J.L., Köster U., Soldner T., Mutti P. [Accurate measurements of delayed neutron yield and group parameters - Methodology and application to <sup>235</sup>U<sub>\(n<sub>th</sub>,f\)</sub>](#)

European Physical Journal A **60**, 197-1-197-29 (2024)

Léger M., Vayer F., Hatnean M.C., Damay F., Decorse C., Berardan D., Fåk B., Zanotti J.M., Berrod Q., Ollivier J., Embs J.P., Fennell T., Sheptyakov D., Petit S., Lhotel E. [Impact of disorder in Nd-based pyrochlore magnets](#)

Physical Review B **109**, 224416-1-224416-17 (2024)

Legrand G., Baeza G.P., Peyla M., Porcar L., Fernández-de-Alba C., Manneville S., Divoux T. [Acid-induced gelation of carboxymethylcellulose solutions](#)

ACS Macro Letters **13**, 234-239 (2024)

Lei L., Patil N., Arnoux A., Le Coeur C., de Rancourt de Mimérand Y., Grande D., Le Droumaguet B., Feng X., Gnanou Y., Couturaud B. [Transition from steric to electrostatic stabilization in shell-degradable waterborne particles obtained by photopolymerization-induced self-assembly](#)

Macromolecules **57**, 10513-10521 (2024)

Lepêtre-Mouelhi S., Gobeaux F., da Silva A., Prades L., Feng J., Wien F., Couvreur P., Testard F. [Leu-enkephalin lipid prodrug nanoparticles: Relationship between nanoparticles' structure, interaction with bovine serum albumin, and analgesic activity](#)

Chemistry of Materials **36**, 694-707 (2024)

Lévêque J., Rebolini E., Lepetit M.B., Saúl A. [Why the pyrochlore-like antiferromagnet NaCu<sub>3</sub>F<sub>7</sub> is magnetically non-frustrated](#)

Journal of Physics Condensed Matter **36**, 415803-1-415803-7 (2024)

Lévêque J., Rebolini E., Saúl A., Lepetit M.B. [Magnetic structure of a multiferroic compound: Cu<sub>2</sub>OCl<sub>2</sub>](#)

Faraday Discussions **254**, 612-627 (2024)

Li S. [Electro-interfacial composition control by ionic liquid technology nanostructure, self-assembly, and friction](#)

PhD Thesis (2024)

- Li S., Hammond O.S., Nelson A., De Campo L., Moir M., Recsei C., Shimpi M.R., Glavatskih S., Pilkington G.A., Mudring A.V., Rutland M.W. [Anion architecture controls structure and electroresponsivity of anhalogenous ionic liquids in a sustainable fluid](#)  
Journal of Physical Chemistry B **128**, 4231-4242 (2024)
- Li Y., Li N., Harder C., Yin S., Bulut Y., Vagias A., Schneider P.M., Chen W., Roth S.V., Bandarenka A.S., Müller-Buschbaum P. [Factors shaping the morphology in sol-gel derived mesoporous zinc titanate films: Unveiling the role of precursor competition and concentration](#)  
Advanced Materials Interfaces **11**, 2400215-1-2400215-13 (2024)
- Liao M., Gong H., Liu H., Shen K., Ge T., King S., Schweins R., McBain A.J., Hu X., Lu J.R. [Combination of a pH-responsive peptide amphiphile and a conventional antibiotic in treating Gram-negative bacteria](#)  
Journal of Colloid and Interface Science **659**, 397-412 (2024)
- Liao M., Gong H., Shen K., Wang Z., Li R., Campana M., Hu X., Lu J.R. [Unlocking roles of cationic and aromatic residues in peptide amphiphiles in treating drug-resistant gram-positive pathogens](#)  
Journal of Colloid and Interface Science **672**, 209-223 (2024)
- Liège W., Xie Y., Bounoua D., Sidis Y., Bourdarot F., Li Y., Wang Z., Yin J.X., Dai P., Bourges P. [Search for orbital magnetism in the kagome superconductor CsV<sub>3</sub>Sb<sub>5</sub> using neutron diffraction](#)  
Physical Review B **110**, 195109-1-195109-18 (2024)
- Lin J., Schaller M., Cherkashinin G., Indris S., Du J., Ritter C., Kondrakov A., Janek J., Brezesinski T., Strauss F. [Synthetic tailoring of ionic conductivity in multicationic substituted, high-entropy lithium argyrodite solid electrolytes](#)  
Small **20**, 2306832-1-2306832-12 (2024)
- Lindblom D., Halilović A.E., Woracek R., Tengattini A., Helfen L., Dahlberg C.F.O. [In-situ neutron imaging of delayed crack propagation in high strength martensitic steel](#)  
Materials Science and Engineering A **895**, 146215-1-146215-14 (2024)
- Link L., Wang H., Hansen T.C., Baran V., Niewa R. [Elpasolite-type superstructures in inverse perovskite nitrides](#)  
Progress in Solid State Chemistry **74**, 100444-1-100444-9 (2024)
- Liu M., Kouadri-David A., Ma G. [Residual stress relaxation in the laser welded structure after low-cycle fatigue and fatigue life: Numerical analysis and neutron diffraction experiment](#)  
Coatings **14**, 281-1-281-19 (2024)
- Liu M., Kouadri-Henni A., Malard B. [Numerical analysis of low-cycle fatigue using the direct cyclic method considering laser welding residual stress](#)  
Coatings **13**, 553-1-553-23 (2023)
- Llanos-Exposito M., Fraile L.M., Benito J., Acosta J., Algora A., Andel B., Andreyev A.N., Antalic S., Bark R.A., Bernerd C., Bernier N., Bhengu B., Bittner D., Borge M.J.G., Briz J.A., Chrysalidis K., Cocolios T.E., Costache C., Cubiss J.G., De Witte H., Encina N., Esmaylzadeh A., Favier Z., Fernández D., Ferrera C., Fynbo H.O.U., García-Távora V.,

Georgiev G., Górska M., Heinke R., Herraiz J.L., Illana A., Jones P., Judson D.S., Jungclaus A., Karny M., Korgul A., Köster U., Kröll T., Labiche M., Lalkovski S., Lesch B., Ley M., Lică R., Madurga M., Mărginean N., Marsh B.A., Miernik K., Mihai C., Mikołajczuk M., Mišt J., Murias J.R., Náchér E., Neacșu C., Nouvilas V.M., Ntshangase S., Olaizola B., Orce J.N., Page C., Pakarinen J., Papadakis P., Perea A., Piersa-Siłkowska M., Podolyák Z., Rog J., Rothe S., Rozwoda B., Sánchez-Tembleque V., Solak K., Stegemann S., Stepaniuk M., Stoica A., Stryczyk M., Tengblad O., Turturică A., Turturică G., Udías J.M., Ujeniuc S., Van Duppen P., von Tresckow M., Vasilev I.B., Warr N., Yue Z., Zajda S. [Fast-timing investigation of  \$A=128\$  isobars populated in the  \$\beta\$ -decay of  \$^{128}\text{Cd}\$](#)   
*Acta Physica Polonica B* **17**, 3-A7-1-3-A7-9 (2024)

Lohr J., Tobia D., Torres T.E., Rodriguez L., Puente Orench I., Cuello G.J., Aguirre M.H., Campo J., Aurelio G., Lima E. [Structure of  \$\text{Zn}\_x\text{Fe}\_{3-x}\text{O}\_4\$  nanoparticles studied by neutron diffraction and its relation with their response in magnetic hyperthermia experiments](#)  
*Journal of Applied Physics* **136**, 043905-1-043905-11 (2024)

López C.A., Abia C., Gainza J., Rodrigues J.E., Martinelli B., Serrano-Sánchez F., Silva R.S., Ferrer M.M., Durá O.J., Martínez J.L., Fernández-Díaz M.T., Alonso J.A. [Unveiling the structural properties, optical behavior, and thermoelectric performance of 2D  \$\text{CsSn}\_2\text{Br}\_5\$  halide obtained by mechanochemistry](#)  
*Inorganic Chemistry* **63**, 12641-12650 (2024)

López-García J., Khanna D.L.R., Sánchez Llamazares J.L., Álvarez-Alonso P., La Roca P., Recarte V., Sánchez-Alarcos V., Pérez-Landazábal J.I., Rodríguez-Velamazán J.A. [Magnetic structure analysis of the  \$L2\_1\$ -type austenite in Ni-Mn-In alloys](#)  
*Intermetallics* **168**, 108242-1-108242-9 (2024)

López-Paz S.A., Sari D.P., Sánchez-Marcos J., Liborio L., Sturniolo S., Ritter C., Hillier A.D., Alario-Franco M.Á. [Triple magnetic stacking in an iron-containing cuprate with Cu-Fe-Cu magnetic blocks](#)  
*Chemistry of Materials* **36**, 8199-8207 (2024)

Lu H., Barlow M.J., Basler D., Gutfreund P., Holderer O., Ioffe A., Pasini S., Pistel P., Salhi Z., Zhernenkov K., Goodson B.M., Snow W.M., Babcock E. [First measurement of neutron birefringence in polarized  \$^{129}\text{Xe}\$  and  \$^{131}\text{Xe}\$  nuclei](#)  
*Physical Review C* **109**, L011001-1-L011001-7 (2024)

Lübke E., Helfen L., Cook P., Mirolo M., Vinci V., Korjus O., Fuchsbichler B., Koller S., Brunner R., Drnec J., Lyonard S. [The origins of critical deformations in cylindrical silicon based Li-ion batteries](#)  
*Energy & Environmental Science* **17**, 5048-5059 (2024)

Luchini A., Gerelli Y., Gutfreund P., Fragneto G., Paduano L., Vitiello G. [Mimicking the inner mitochondrial membrane with curved supported lipid bilayers: A neutron reflectometry study](#)  
*Journal of Molecular Liquids* **396**, 123973-1-123973-8 (2024)

Lukić B., Rack A., Helfen L., Foster D.J., Ershov A., Welss R., Francois S., Rochet X. [Indirect detector for ultra-high-speed X-ray micro-imaging with increased sensitivity to near-ultraviolet scintillator emission](#)

Journal of Synchrotron Radiation **31**, 1224-1233 (2024)

Lychagin E., Dubois M., Nesvizhevsky V. [Powders of diamond nanoparticles as a promising material for reflectors of very cold and cold neutrons](#)  
Nanomaterials **14**, 387-1-387-38 (2024)

Ma M., Bourges P., Sidis Y., Sun J., Wang G., Iida K., Kamazawa K., Park J.T., Bourdarot F., Ren Z., Li Y. [Ferromagnetic interlayer coupling in FeSe<sub>1-x</sub>S<sub>x</sub> superconductors revealed by inelastic neutron scattering](#)  
Physical Review B **110**, 174503-1-174503-7 (2024)

Magerl A., Lemmel H., Appel M., Weisser M., Kretzer U., Zobel M. [The promise of GaAs 200 in small-angle neutron scattering for higher resolution](#)  
Journal of Applied Crystallography **57**, 1282-1287 (2024)

Managutti P.B., Wen Y., Hansen T.C., Dorcet V., Paofai S., Briois P., Huang K., Bahout M. [Ce- and Ni-codoped double PrBaMn<sub>2</sub>O<sub>5</sub> perovskite as a ceramic SOFC anode](#)  
ACS Applied Energy Materials **7**, 3831-3840 (2024)

Manokaran R., Farrusseng D., Coasne B. [Molecular simulation of cyclohexane in nanoporous materials: Adsorption of conformers and coadsorption with water and carbon dioxide](#)  
Langmuir **40**, 22027-22036 (2024)

Manvell A.S., Pflieger R., Bonde N.A., Briganti M., Mattei C.A., Nannestad T.B., Weihe H., Powell A.K., Ollivier J., Bendix J., Perfetti M. [LnDOTA puppeteering: Removing the water molecule and imposing tetragonal symmetry](#)  
Chemical Science **15**, 113-123 (2024)

Mao Y., Alonso J.A., Fernández-Díaz M.T., Sun C. [Nitrogen-doped carbon coated Na<sub>3</sub>V<sub>2</sub>O<sub>2</sub>\(PO<sub>4</sub>\)<sub>2</sub>F as a cathode for high-performance sodium-ion batteries](#)  
Journal of Electroanalytical Chemistry **975**, 118763-1-118763-9 (2024)

Markeviciute V., Puthia M., Arvidsson L., Liu Y., Törnquist E., Tengattini A., Huang J., Bai Y., Vater C., Petrolis R., Zwingenberger S., Krisciukaitis A., Smailys A., Lukosevicius S., Stravinskas M., Isaksson H., Tarasevicius S., Lidgren L., Tagil M., Raina D.B. [Systemically administered zoledronic acid activates locally implanted synthetic hydroxyapatite particles enhancing peri-implant bone formation: A regenerative medicine approach to improve fracture fixation](#)  
Acta Biomaterialia **179**, 354-370 (2024)

Marry V., le Crom S., Ferrage E., Michot L., Farago B., Delville A., Dubois E. [Role of cationic organization on water dynamics in saponite clays](#)  
Journal of Physical Chemistry C **18**, 4233-4244 (2024)

Martell J., Alwmark C., Woracek R., Alwmark S., Hall S., Ferriere L., Daly L., Koch C.B., Hektor J., Johansson S., Helfen L., Tengattini A., Mannes D. [Combined neutron and X-ray tomography - A versatile and non-destructive tool in planetary geosciences](#)  
Journal of Geophysical Research: Planets **129**, e2023JE008222-1-e2023JE008222-15 (2024)

- Martinelli A., Ryan D.H., Sereni J.G., Ritter C., Čurlík I., Giovannini M. [Incommensurate magnetic cycloidal order in noncentrosymmetric  \$\text{Eu}\_2\text{Pd}\_2\text{Sn}\$](#)   
Physical Review B **109**, 104424-1-104424-7 (2024)
- Martínez de Irujo Labalde X., Lee M.Y., Grievson H., Mortimer J.M., Booth S.G., Suard E., Cussen S.A., Hayward M.A. [Influence of cation substitution on cycling stability and Fe-cation migration in  \$\text{Li}\_3\text{Fe}\_{3-x}\text{M}\_x\text{Te}\_2\text{O}\_{12}\$  \(M = Al, In\) cathode materials](#)  
Inorganic Chemistry **63**, 1395-1403 (2024)
- Martínez de Irujo-Labalde X., Zhao T., Samanta B., Bernges T., Faka V., Sobolev A.N., Maus O., Appel M., Kraft M.A., Hansen M.R., Zeier W.G. [How crystal structure and microstructure can influence the sodium-ion conductivity in halide perovskites](#)  
Journal of Materials Chemistry A **12**, 33707-33722 (2024)
- Mason P.E., Martinek T., Fábíán B., Vazdar M., Jungwirth P., Tichacek O., Duboué-Dijon E., Martinez-Seara H. [Hydration of biologically relevant tetramethylammonium cation by neutron scattering and molecular dynamics](#)  
Physical Chemistry Chemical Physics **26**, 3208-3218 (2024)
- Mat'usová A., Moody G., Dowding P.J., Eastoe J., Camp P.J. [Experimental and simulation study of reverse micelles formed by aerosol-OT and water in non-polar solvents](#)  
Physical Chemistry Chemical Physics **26**, 27772-27782 (2024)
- Matsarskaia O., Prévost S., Ryan E., Schweins R. [50 Years of D11: A History of SANS at the ILL](#)  
Neutron News **34**, 10-12 (2023)
- Mayer S.F., Mirolo M., Iles Velez A.A., Korjus O., Suard E., Lecarme L., Ducros J.B., Villevieille C. [Exploring the temperature-dependent structural evolution of mechanically synthesized  \$\text{Na}\_3\text{PS}\_4\$  solid electrolyte through in situ X-ray diffraction](#)  
Small Structures **5**, 2400225-1-2400225-11 (2024)
- Menold P., Strey R., Roitsch S., Preisig N., Stubenrauch C. [Transition from a sponge-like to an onion-like nanostructure in the  \$L\_3\$  phase – Part I](#)  
Journal of Colloid and Interface Science **653**, 1743-1752 (2024)
- Mentré O., Minaud C., Wolber J., Duffort V., Pautrat A., Stolyarov V.S., Arévalo-López Á.M. [Giant coercive-field \( \$H\_c @ 2 \text{ K} > 17 \text{ T}\$ \) by freezing of magnetic domains in  \$\text{BaFe}\_2\(\text{PO}\_4\)\_2\$](#)   
Solid State Sciences **153**, 107577-1-107577-7 (2024)
- Mercadier B., Legein C., Body M., Famprikis T., Morcrette M., Suard E., Masquelier C., Dambournet D. [Insights into the micro-structure-transport relationships of the fluoride-ion conductor  \$t\text{-BaSnF}\_4\$  synthesized by spark plasma sintering](#)  
Chemistry of Materials **36**, 8076-8087 (2024)
- Merchán M.D., Pawar N., Santamaria A., Sánchez-Fernández R., Konovalov O., Maestro A., Velázquez M.M. [Structure of graphene oxide-phospholipid monolayers: A grazing incidence X-ray diffraction and neutron and X-ray reflectivity study](#)  
Journal of Colloid and Interface Science **655**, 664-675 (2024)

Meyer G. [Caractérisation de systèmes biphasiques aqueux pour le recyclage des métaux](#)  
PhD Thesis (2023)

Mohammadi H., Zeidler A., Youngman R.E., Fischer H.E., Salmon P.S. [Pressure dependent structure of amorphous magnesium aluminosilicates: The effect of replacing magnesia by alumina at the enstatite composition](#)

Journal of Chemical Physics **160**, 064501-1-064501-18 (2024)

Montes P., Chopra T., Konefał R., Hájovská P., Lacík I., Raus V., Šlouf M., Uchman M., Štěpánek M. [Interpolyelectrolyte complexes of a biguanide cationic polyelectrolyte: Formation of core/corona nanoparticles with double-hydrophilic diblock polyanion](#)  
Soft Matter **20**, 9475-9482 (2024)

Moody G. [Reverse cylindrical micelles: Potential lubricants for CO<sub>2</sub> emission reduction](#)  
PhD Thesis (2023)

Moreira M.H., Dal Pont S., Tengattini A., Pandolfelli V.C. [Neutron tomography analysis of permeability-enhancing additives in refractory castables](#)

Journal of the American Ceramic Society **107**, 7072-7085 (2024)

Morozova T.I., García N.A., Barrat J.L. [Sequence length controls coil-to-globule transition in elastin-like polypeptides](#)

Journal of Physical Chemistry Letters **15**, 10757-10762 (2024)

Mosca I., Beck C., Jalarvo N.H., Matsarskaia O., Roosen-Runge F., Schreiber F., Seydel T. [Continuity of short-time dynamics crossing the liquid-liquid phase separation in charge-tuned protein solutions](#)

Journal of Physical Chemistry Letters **15**, 12051-12059 (2024)

Mouhand A., Nakatani K., Kono F., Hippo Y., Matsuo T., Barthe P., Peters J., Suenaga Y., Tamada T., Roumestand C. [<sup>1</sup>H, <sup>13</sup>C and <sup>15</sup>N backbone and side-chain resonance assignments of the human oncogenic protein NCYM](#)

Biomolecular NMR assignments **18**, 65-70 (2024)

Mpanga E.M., Wernert R., Fauth F., Suard E., Avdeev M., Fraisse B., Camacho P.S., Carlier D., Lebedev O., Cassidy S.J., Rouse G., Berthelot R. [Solid-state chemistry shuffling of alkali ions toward new layered oxide materials](#)

Chemistry of Materials **36**, 892-900 (2024)

Müller W., Sroka W., Schweins R., Nöcker B., Poon J.F., Huber K. [Impact of additive hydrophilicity on mixed dye-nonionic surfactant micelles: Micelle morphology and dye localization](#)

Langmuir **40**, 8872-8885 (2024)

Muñoz A., Gainza J., Zhou J.S., Martínez J.L., Céspedes E., Fernández-Díaz M.T., Alonso J.A. [New insights into the magnetism and magnetic structure of LuCrO<sub>3</sub> perovskite](#)

Acta Crystallographica B **80**, 377-384 (2024)

- Munshi S., Walker G.S., Manickam K., Hansen T.C., Dornheim M., Grant D.M. [Understanding the reaction pathway of lithium borohydride-hydroxide-based multi-component system for enhanced hydrogen storage](#)  
Journal of Materials Chemistry A **12**, 28326-28336 (2024)
- Murphy G.L., Bazarkina E., Svitlyk V., Rossberg A., Potts S., Hennig C., Henkes M., Kvashnina K.O., Huittinen N. [Probing the long- and short-range structural chemistry in the C-type bixbyite oxides  \$\text{Th}\_{0.40}\text{Nd}\_{0.48}\text{Ce}\_{0.12}\text{O}\_{1.76}\$ ,  \$\text{Th}\_{0.47}\text{Nd}\_{0.43}\text{Ce}\_{0.10}\text{O}\_{1.785}\$ , and  \$\text{Th}\_{0.45}\text{Nd}\_{0.37}\text{Ce}\_{0.18}\text{O}\_{1.815}\$  via synchrotron X-ray diffraction and absorption spectroscopy](#)  
ACS Omega **9**, 27397-27406 (2024)
- Murshed M.M., Fischer M., Koza M.M., Gesing T.M. [Thermal behaviors during lithium diffusion in  \$\text{Li}\_{0.4}\text{WO}\_3\$  bronze studied by elastic and quasi-elastic neutron scattering](#)  
Physical Chemistry Chemical Physics **26**, 16191-16199 (2024)
- Mustonen O.H.J., Fogh E., Paddison J.A.M., Mangin-Thro L., Hansen T., Playford H.Y., Diaz-Lopez M., Babkevich P., Vasala S., Karppinen M., Cussen E.J., Rønnow H.M., Walker H.C. [Structure, spin correlations, and magnetism of the  \$S = 1/2\$  square-lattice antiferromagnet  \$\text{Sr}\_2\text{CuTe}\_{1-x}\text{W}\_x\text{O}\_6\$  \( \$0 \leq x \leq 1\$ \)](#)  
Chemistry of Materials **36**, 501-513 (2024)
- Muthwill M.S., Bina M., Paracini N., Coats J.P., Merget S., Avsar S.Y., Messmer D., Tiefenbacher K., Palivan C.G. [Planar polymer membranes accommodate functional self-assembly of inserted resorcinarene nanocapsules](#)  
ACS Applied Materials & Interfaces **16**, 13291-13304 (2024)
- Nädäban A., Gooris G.S., Beddoes C.M., Dalglish R.M., Malfois M., Demé B., Bouwstra J.A. [The molecular arrangement of ceramides in the unit cell of the long periodicity phase of stratum corneum models shows a high adaptability to different ceramide head group structures](#)  
Biochimica et Biophysica Acta (BBA) - Biomembranes **1866**, 184324-1-184324-11 (2024)
- Naumovska E., Orstadius J., Perrichon A., Lavén R., Koza M.M., Evenson Z., Karlsson M. [Localized proton motions in the proton-conducting perovskites  \$\text{BaZr}\_{1-x}\text{Sc}\_x\text{O}\_3\text{H}\_x\$  \( \$x = 0.10\$  and  \$0.50\$ \) investigated with quasielastic neutron scattering](#)  
Journal of Physical Chemistry C **127**, 24532-24541 (2023)
- Nell S., Yang F., Holland-Moritz D., Voigtmann T., Hu J., Hansen T.C., Buslaps T., Meyer A. [Structural and dynamical properties of densely packed glass-forming  \$\text{Ni}\_{66.7}\text{B}\_{33.3}\$](#)   
Physical Review B **110**, 014206-1-014206-7 (2024)
- Nemati A., Lukić B., Tengattini A., Briffaut M., Séchet P. [Towards \*in-situ\* water quantification via neutron imaging: insights from NeXT-Grenoble](#)  
Measurement Science and Technology **35**, 075405-1-075405-31 (2024)
- esvizhevsky V., Henry K., Dauga L., Clavier B., Le Floch S., Lychagin E., Muzychka A., Nezvanov A., Pishedda V., Teander C., Turlybekuly K., Radescu S., Vigolo B., Cahen S., Hérold C., Ghanbaja J., Zhernenkov K., Dubois M. [Poly\(dicarbon monofluoride\)  \$\(\text{C}\_2\text{F}\)\_n\$  bridges the neutron reflectivity gap](#)  
Carbon **227**, 119249-1-119249-11 (2024)

- Neulinger T. [Developments in neutron Fourier time-of-flight](#)  
Nuclear Instruments and Methods in Physics Research A **1065**, 169513-1-169513-1 (2024)
- Neulinger T., Bernert K., Fierlinger P., Filter H., Hino M., Jenke T., Lapeyre F., Zimmer O. [Demonstration with very-cold neutrons of developments in Fourier time-of-flight](#)  
Nuclear Instruments and Methods in Physics Research A **1066**, 169570-1-169570-12 (2024)
- Neulinger T., Filter H., Zimmer O. [Vertical time-of-flight spectroscopy of ultracold neutrons](#)  
Nuclear Instruments and Methods in Physics Research A **1059**, 168947-1-168947-14 (2024)
- Neville G.M., Dobre A.M., Smith G.J., Micciulla S., Brooks N.J., Arnold T., Welton T., Edler K.J. [Interactions of choline and geranate \(CAGE\) and choline octanoate \(CAOT\) deep eutectic solvents with lipid bilayers](#)  
Advanced Functional Materials **34**, 2306644-1-2306644-14 (2024)
- Nidriche A., Moulin M., Oger P., Stewart J.R., Mangin-Thro L., Schmidt W., Kneller G., Peters J. [Impact of isotopic exchange on hydrated protein dynamics revealed by polarized neutron scattering](#)  
PRX Life **2**, 013005-1-013005-12 (2024)
- Nimoh H., Arévalo-López Á.M., Meier Q.N., Minaud C., Huvé M., Capet F., Cano A., Glaum R., Mentré O. [Antipolar 2D metallicity with tunable valence  \$W\_x^+\$  \( \$5 \leq x \leq 5.6\$ \) in the layered monophosphate tungsten bronzes  \$\[\text{Ba}\(\text{PO}\_4\)\_2\]\text{W}\_m\text{O}\_{3m-3}\$](#)   
Journal of the American Chemical Society **146**, 23955-23962 (2024)
- Nimoh H., Mentré O., Hammer E.M., Jahnig M., Dittrich V., Minaud C., Colin C.V., Arevalo-Lopez A., Glaum R. [Layer-by-layer magnetic ordering via Idle spins and the optical signature of Jahn-Teller  \$\text{Cr}^{2+}\$  ions in  \$\text{Sr}\_2\text{Cr}\(\text{PO}\_4\)\_2\$](#)   
Inorganic Chemistry **63**, 21000-21011 (2024)
- Noguere G., Xu S., Filhol A., Ollivier J., Zanotti J.M., Berrod Q., Nassif V., Puente Orench I., Colin C., Hansen T.C., Bernard D. [Systematics of zircaloy-4 lattice parameters from 2 K to PWR irradiation conditions](#)  
European Physical Journal Plus **139**, 787-1-787-20 (2024)
- Noirat D.B., Frick B., Jakobsen B., Appel M., Niss K. [Density scaling and isodynes in glycerol-water mixtures](#)  
Physical Chemistry Chemical Physics **26**, 29003-29014 (2024)
- Nordenström A., Boulanger N., Vorobiev A., Amidani L., Bauters S., Galanzew J., Kvashnina K., Talyzin A. [Neutron reflectivity for testing graphene oxide films sorption of  \$\text{EuCl}\_3\$  in ethanol solution](#)  
Physica Status Solidi (b) **261**, 2400069-1-2400069-7 (2024)
- Ochsenbein P., Bonin M., Fadaei-Tirani F., Lemée M.H., Kieffer J., Görl D., El-Hajji M., Schenk-Joß K. [A score and nine years of irbesartan](#)  
CrystEngComm **26**, 4566-4578 (2024)

Oishi R., Ritter C., Koza M.M., Adroja D.T., Onimaru T., Shimura Y., Umeo K., Takabatake T. [Canted antiferromagnetic order in the centrosymmetric honeycomb-lattice compound NdPt<sub>6</sub>Al<sub>3</sub>](#)

Physical Review B **110**, 144411-1-144411-10 (2024)

Oji U.K., Tengattini A., Helfen L., Manke I., Cubitt R., Kardjilov N. [Polarized neutron imaging at NeXT \(neutron and x-ray tomograph\) at Institut Laue Langevin](#)

Review of Scientific Instruments **95**, 063703-1-063703-8 (2024)

Oji U.K., Backs A., Kockelmann W., Manke I., Hilger A., Kardjilov N., Cubitt R. [The importance of the adiabatic condition on polarized neutron imaging](#)

Nuclear Instruments and Methods in Physics Research A **1064**, 169450-1-169450-9 (2024)

Oji U.K., Fang H., Ludwig W., Lhuisser P., Samothrakitis S., Larsen C.B., Hilger A., Manke I., Tovar M., Cubitt R., Kardjilov N. [Investigating the flux pinning dependence on grain orientation in YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-δ</sub> using neutron tomography](#)

Materials Characterization **214**, 114082-1-114082-6 (2024)

Oji U.K., Hilger A., Manke I., Foerster C., Cubitt R., Kardjilov N. [Spatial 3D correlation of flux pinning with porosity distribution in YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-δ</sub> using tensorial neutron tomography](#)

Materials Today Communications **39**, 108579-1-108579-7 (2024)

Oney G., Serrano Sevillano J., Ben Yahia M., Olchowka J., Suard E., Weill F., Demortière A., Casas-Cabanas M., Croguennec L., Carlier D. [Identification of degree of ordering in spinel LiNi<sub>0.5</sub>Mn<sub>1.5</sub>O<sub>4</sub> through NMR and Raman spectroscopies supported by theoretical calculations](#)

Energy Storage Materials **70**, 103486-1-103486-10 (2024)

Oró-Solé J., Frontera C., Guarín J.R., Gàzquez J., Mundet B., Ritter C., Fontcuberta J., Fuertes A. [Nitride tuning of magnetic frustration in the double perovskite Ba<sub>2</sub>MnWO<sub>6</sub>](#)

Chemistry of Materials **36**, 10267-10275 (2024)

Ortiz B.R., Sarte P.M., Pokharel G., Knudtson M.J., Gomez Alvarado S.J., May A.F., Calder S., Mangin-Thro L., Wildes A.R., Zhou H., Sala G., Wiebe C.R., Wilson S.D., Paddison J.A.M., Aczel A.A. [Revisiting spin ice physics in the ferromagnetic Ising pyrochlore Pr<sub>2</sub>Sn<sub>2</sub>O<sub>7</sub>](#)

Physical Review B **109**, 134420-1-134420-15 (2024)

Ortner K., Andreoiu C., Petrache C.M., Qi C., Astier A., Bucher T.D., Colombi G., Dupont E., Garcia F.H., Garrett P.E., Guo S., Häfner G., Jigmeddorj B., Jolie J., Kandzia F., Karayonchev V., Kim Y.H., Knafla L., Lv B.F., Mărginean N., McGee E., Michelagnoli C., Mihai C., Mutti P., Porzio C., Raymond K., Régis J.M., Saed-Samii N., Spagnoletti P., Urban W., Valbuena S., Vanhoy J.R., Whitmore K., Wisniewski J., Yates S.W. [Low-spin states in <sup>118</sup>Sn populated by the radiative capture of thermal neutrons](#)

Physical Review C **109**, 054317-1-054317-19 (2024)

Padrón-Alemán K., Arreguín-Hernandez M.L., Cuello G.J., Álvarez-Alonso P., Sánchez Llamazares J.L. [Phase analysis of near equiatomic bulk FeRh alloys: X-ray versus neutron diffraction and magnetization measurements](#)

Materials Chemistry and Physics **327**, 129904-1-129904-6 (2024)

- Pajzderska A., González M.A., Jarek M., Ważicki J. [Monitoring of isothermal crystallization and time-temperature transformation of amorphous felodipine: The time-domain nuclear magnetic resonance method](#)  
AAPS PharmSciTech **25**, 219-1-219-12 (2024)
- Pannu S.P.S. [Searching for signatures of shape coexistence in  \$^{100}\text{Ru}\$](#)   
PhD Thesis (2023)
- Papadakis C.M., Niebuur B.J., Schulte A. [Thermoresponsive polymers under pressure with a focus on poly\(N-isopropylacrylamide\) \(PNIPAM\)](#)  
Langmuir **40**, 1-20 (2024)
- Pappas C., Lelièvre-Berna E. [Magnetic chirality probed by polarized neutrons and neutron spin echo spectroscopy](#)  
In “Handbook of Magnetic Materials” (Elsevier, 2024) pp.1-27
- Pardo-Sainz M., Moris S., Piquer C., Rodríguez-Velamazán J.A., López M.L., Alvarez-Serrano I., Galdamez A., Campo J. [Suppression of ferromagnetism and emergence of spin-glass-like behavior in the  \$\text{CuCr}\_{2-x}\text{Sn}\_x\text{S}\_2\text{Se}\_2\$  spinels](#)  
Physical Review B **110**, 064436-1-064436-11 (2024)
- Paul M., Köster U. [Comment on “Tests and calibrations of nuclear track detectors \(CR39\) for operation in high neutron flux”](#)  
Physical Review Research **6**, 028001-1-028001-2 (2024)
- Paul-Boncour V., Shtender V., Provost K., Phejar M., Cuevas F., Skourski Y., Isnard O. [Origin of the metamagnetic transitions in  \$\text{Y}\_{0.9}\text{Tb}\_{0.1}\text{Fe}\_2\text{D}\_{4.3}\$](#)   
Journal of Solid State Chemistry **338**, 124898-1-124898-9 (2024)
- Pawar N., Pena-Figueroa M., Verde-Sesto E., Maestro A., Alvarez-Fernandez A. [Exploring the interaction of lipid bilayers with curcumin-laponite nanoparticles: Implications for drug delivery and therapeutic applications](#)  
Small **20**, 2406885-1-2406885-10 (2024)
- Peck Y., Pickering D., Mobli M., Liddell M.J., Wilson D.T., Ruscher R., Ryan S., Buitrago G., McHugh C., Love N.C., Pinlac T., Haertlein M., Kron M.A., Loukas A., Daly N.L. [Solution structure of the N-terminal extension domain of a \*Schistosoma japonicum\* asparaginyl-tRNA synthetase](#)  
Journal of Biomolecular Structure and Dynamics **42**, 7934-7944 (2024)
- Peng W., Guo H., Schmidt W., Piovano A., Luetkens H., Chen C.T., Hu Z., Komarek A.C. [Hour-glass spectra due to oxygen doping in cobaltates](#)  
Communications Physics **7**, 399-1-399-9 (2024)
- Pensini E., Marangoni A.G., Bartokova B., Fameau A.L., Corradini M.G., Stobbs J.A., Arthur Z., Prévost S. [Sulfolane clustering in aqueous saline solutions](#)  
Physics of Fluids **36**, 037117-1-037117-12 (2024)
- Perez-Mato J.M., Campbell B.J., Garlea V.O., Damay F., Aurelio G., Avdeev M., Fernández-Díaz M.T., Henriques M.S., Khalyavin D., Lee S., Pomjakushin V., Terada N., Zaharko O.,

- Campo J., Fabelo O., Litvin D.B., Petříček V., Rayaprol S., Rodríguez-Carvajal J., Von Dreele R. [Guidelines for communicating commensurate magnetic structures. A report of the International Union of Crystallography Commission on Magnetic Structures](#)  
*Acta Crystallographica B* **80**, 219-234 (2024)
- Perrotta L., Vitale E., Arciero M., Roubin E., Tengattini A., Russo G., Viggiani G. [X-ray microstructural insight into the mechanical behaviour of light-weight cemented soils](#)  
*Géotechnique Letters* **14**, 1-7 (2024)
- Peters J., Kornmueller K., Dannaoui R., Sylva E., Pastore A. [Direct detection of bound water in hydrated powders of lysozyme by differential scanning calorimetry](#)  
*ACS Physical Chemistry Au* **4**, 593-597 (2024)
- Petrinin A.V., Höfken T., Schneider S., Mota-Santiago P., Houston J.E., Scotti A. [Phase behavior of binary mixtures of hollow and regular microgels](#)  
*Soft Matter* **20**, 8125-8135 (2024)
- Philippe J., Elson F., Casati N.P.M., Sanz S., Metzelaars M., Shliakhtun O., Forslund O.K., Lass J., Shiroka T., Linden A., Mazzone D.G., Ollivier J., Shin S., Medarde M., Lake B., Månsson M., Bartkowiak M., Normand B., Kögerler P., Sassa Y., Janoschek M., Simutis G. [\(C<sub>5</sub>H<sub>9</sub>NH<sub>3</sub>\)<sub>2</sub>CuBr<sub>4</sub>: A metal-organic two-ladder quantum magnet](#)  
*Physical Review B* **110**, 094101-1-094101-13 (2024)
- Piarristeguy A.A., Escalier R., Pradel A., Cristiglio V., Cuello G.J. [Exploring structural changes in Ge-Te amorphous films through small-angle neutron scattering](#)  
*Applied Sciences* **14**, 11713-1-11713-11 (2024)
- Piccinini A., Kohlbrecher J., Moussaoui D., Winter A., Prévost S. [Effect of cardiolipin on the lamellarity and elongation of liposomes hydrated in PBS](#)  
*Journal of Colloid and Interface Science* **669**, 844-855 (2024)
- Pillado B., Matykina E., Olivier M.G., Mohedano M., Arrabal R. [Functionalization of plasma electrolytic oxidation/sol-gel coatings on AZ31 with organic corrosion inhibitors](#)  
*Coatings* **14**, 84-1-84-23 (2024)
- Planes E., Peet J., Brubach J.B., Porcar L., De Moor G., Iojoiu C., Lyonard S. [In situ investigation of moisture sorption mechanism in fuel cell catalyst layers](#)  
*Energy Advances* **3**, 1594-1611 (2024)
- Porée V., Gawryluk D.J., Shang T., Rodríguez-Velamazán J.A., Casati N., Sheptyakov D., Torrelles X., Medarde M. [YBa<sub>1-x</sub>Sr<sub>x</sub>CuFeO<sub>5</sub> layered perovskites: An attempt to explore the magnetic order beyond the paramagnetic-collinear-spiral triple point](#)  
*Physical Review B* **110**, 235156-1-235156-15 (2024)
- Pour B.E., Stöcklin A., Busch C., Kaufmann S., Humphreys B., Vorobiev A., Nylander T., Dahint R., Tanaka M. [Structural and spectroscopic characterization of supported sarcoplasmic reticulum membranes on solid substrates](#)  
*Langmuir* **40**, 22168-22176 (2024)

Prause A. [Structural investigation of hydrophobically modified thermoresponsive polymers and their influence on the rheology of microemulsions](#)  
PhD Thesis (2023)

Pulvermacher S., Loebich F., Prahs A., Liu H., Cabeza S., Pirling T., Hofmann M., Gibmeier J. [Analysis of phase-specific strain pole figures for duplex steels under elasto-plastic uniaxial tension - Experiment vs. EPSC modelling](#)  
Crystals **14**, 206-1-206-23 (2024)

Querejeta M., Pety J., Schrubba A., Leroy A.K., Herrera C.N., Chiang I.D., Meidt S.E., Rosolowsky E., Schinnerer E., Schuster K., Sun J., Hermann K.A., Barnes A.T., Bešlić I., Bigiel F., Cao Y., Chevance M., Eibensteiner C., Emsellem E., Faesi C.M., Hughes A., Kim J., Klessen R.S., Kreckel K., Kruijssen J.M.D., Liu D., Neumayer N., Pan H.A., Saito T., Sandstrom K., Teng Y.H., Usero A., Williams T.G., Zakardjian A. [A sensitive, high-resolution, wide-field IRAM NOEMA CO\(1-0\) survey of the very nearby spiral galaxy IC 342](#)  
Astronomy & Astrophysics **680**, A4-1-A4-15 (2023)

Qureshi N., Morrow R., Eltoukhy S., Grinenko V., Buzanich A.G., Onykienko Y.A., Kulbakov A., Inosov D.S., Adler P., Valldor M. [Noncollinear magnetic structures in the chiral antiperovskite  \$\beta\$ -Fe<sub>2</sub>SeO](#)  
Inorganic Chemistry **63**, 22712-22720 (2024)

Radzina M., Saule L., Mamis E., Pajuste E., Koester U., Cocolios T.E., Proskurins J., Kalnina P., Zabolockis R.J., Palskis K., Talip Z., Jensen M., Duchemin C., Baatout S., Leufgen K., Stora T. [Novel radionuclides: demand, production and distribution for translational research in Europe](#)  
EJNMMI Radiopharmacy and Chemistry **9**, 85-1-85-16 (2024)

Ran K., Tan W., Sun X., Liu Y., Dalgliesh R.M., Steinke N.J., van der Laan G., Langridge S., Hesjedal T., Zhang S. [Bending skyrmion strings under two-dimensional thermal gradients](#)  
Nature Communications **15**, 4860-1-4860-8 (2024)

Ranieri U., del Rosso L., Bove L., Celli M., Colognesi D., Gaál R., Hansen T.C., Koza M.M., Ulivi L. [Large-cage occupation and quantum dynamics of hydrogen molecules in \*sII\* clathrate hydrates](#)  
Journal of Chemical Physics **160**, 164706-1-164706-14 (2024)

Ranieri U., Formisano F., Gorelli F.A., Santoro M., Koza M.M., De Francesco A., Bove L.E. [Crossover from gas-like to liquid-like molecular diffusion in a simple supercritical fluid](#)  
Nature Communications **15**, 4142-1-4142-10 (2024)

Rayaprol S., Isnard O., Knotko A.V., Yapaskurt V.O., Morozkin A.V. [Structural specific features of Mn<sub>5</sub>Si<sub>3</sub>-type quasibinary Gd-, Tb- and Dy-based compounds and magnetic structure of quasibinary Tb<sub>5</sub>Sb<sub>2</sub>Bi](#)  
Journal of Solid State Chemistry **332**, 124579-1-124579-7 (2024)

Raymond S., Lhotel E., Riordan E., Ressouche E., Beauvois K., Marin C., Zhitomirsky M.E. [Uncommon magnetic ordering in the quantum magnet Yb<sub>3</sub>Ga<sub>5</sub>O<sub>12</sub>](#)  
Physical Review Letters **133**, 236701-1-236701-6 (2024)

Reitano A., Kunz S., Xu M., Suard E., Bianchini M. [Phase stability and charge compensation in disordered rock salt compounds based on nickel and titanium](#)  
Journal of Materials Chemistry A **12**, 15731-15743 (2024)

Reitenbach J., Wang P., Huber L.F., Wegener S.A., Cubitt R., Schanzenbach D., Laschewsky A., Papadakis C.M., Müller-Buschbaum P. [Salt-mediated tuning of the cononsolvency response behavior of PNIPMAM thin films](#)  
Macromolecules **57**, 10635-10647 (2024)

Reynolds E., Hall T. [Characterising the performance of a fission fragment identification spectrometer](#)  
Master Project (2024)

Ricchebuono A., Vottero E., Bonavia D., Lazzarini P., Pellegrini R., Crocellà V., Porcaro N.G., Checchia S., Ferri D., Piovano A., Groppo E. [CO-induced dynamic behavior of Al<sub>2</sub>O<sub>3</sub>-supported Pd nanoparticles at room temperature](#)  
ACS Catalysis **14**, 13736-13746 (2024)

Ritter C., Provino A., Pecharsky V.K., Lamura G., Fauth F., Smetana V., Mudring A.V., Manfrinetti P. [Magnetic structures and properties of new 1:1 MoB-type RCo<sub>0.6</sub>Ni<sub>0.4</sub> and RCo<sub>0.5</sub>Ni<sub>0.5</sub> \(R = Tb, Dy, Ho\): Structural transition induced by magnetic ordering](#)  
Journal of Alloys and Compounds **972**, 172690-1-172690-11 (2024)

Ritter C., Ryan D.H., Provino A., Lamura G., Mudryk Y., Chouhan R.K., Singh P., Johnson D.D., Pecharsky V.K., Manfrinetti P. [Magnetic ordering in Eu<sub>2</sub>In and Eu<sub>2</sub>Sn](#)  
Journal of Alloys and Compounds **980**, 173573-1-173573-10 (2024)

Rizzi N., Folsom B., Akhyani M., Bertelsen M., Böni P., Beßler Y., Bryś T., Chambon A., Czamler V., Lauritzen B., Marquez Damian J.I., Nesvizhevsky V., Rataj B., Samothrakitis S., Santoro V., Shuai H., Strobl M., Strothmann M., Takibayev A., Wagner R., Zanini L., Zimmer O. [An intense source of very cold neutrons using solid deuterium and nanodiamonds for the European Spallation Source](#)  
Nuclear Instruments and Methods in Physics Research A **1062**, 169215-1-169215-15 (2024)

Rodríguez M., Basov S., Madarevic I., Saerbeck T., Ferroni M., Breckner P., Isaia D., Fulanović L., Jafari A., Sergueev I., Leupold O., Van Bael M.J., Vantomme A., Temst K. [Influence of the interface on the electric control of the magnetization direction in Fe/PMN-PT magnetoelectric heterostructures](#)  
ACS Applied Electronic Materials **6**, 2289-2300 (2024)

Rodríguez-Carvajal J., Perez-Mato J.M. [Magnetic space groups versus representation analysis in the investigation of magnetic structures: the happy end of a strained relationship](#)  
Acta Crystallographica B **80**, 370-376 (2024)

Rodríguez-Crespo B., Río-López N.A., Lázpita P., Ceballos S., Ríos M., Domenech D., Rodríguez-Velamazán J.A., López-García J., Chernenko V., Porro J.M., Salazar D. [Impact of magnetic, atomic and microstructural ordering on the magnetocaloric performance of powdered NiCoMnSn metamagnetic shape memory ribbons](#)  
Materials & Design **245**, 113279-1-113279-11 (2024)

- Rodríguez-Velamazán J.A., Fabelo O., Qureshi N. [Ferrotoroidicity in Cs<sub>2</sub>FeCl<sub>5</sub>·D<sub>2</sub>O](#)  
Scientific Reports **14**, 31204-1-31204-7 (2024)
- Rodzinka A.E., Fedrigo A., Scherillo A., Shortland A.J., Simpson J., Erb-Satullo N.L. [Neutron tomography reveals extensive modern modification in Iron Age Iranian swords](#)  
Journal of Archaeological Science **171**, 106018-1-106018-14 (2024)
- Roirand H., Saintier N., Hor A., Malard B. [Understanding of additively manufactured material cyclic behavior at the grain scale by neutron diffraction and crystal plasticity modeling](#)  
Materials Science and Engineering: A **918**, 147380-1-147380-15 (2024)
- Roll A., Balédent V., Robert J., Ollivier J., Decorse C., Guitteny S., Mirebeau I., Petit S. [Magnetic interactions in the cooperative paramagnet Tb<sub>2</sub>Ti<sub>2</sub>O<sub>7</sub>](#)  
Physical Review Research **6**, 043011-1-043011-6 (2024)
- Romaguera A., Fabelo O., Qureshi N., Rodríguez-Velamazán J.A., García-Muñoz J.L. [Evidence of high-temperature magnetic spiral in YBaCuFeO<sub>5</sub> single-crystal by spherical neutron polarimetry](#)  
Communications Materials **5**, 273-1-273-13 (2024)
- Romero F.D., Ji K., Colin C.V., Attfield J.P. [Doping-independent 120° magnetism in the quadruple perovskite CaMn<sub>3</sub>V<sub>4</sub>O<sub>12</sub>](#)  
Physical Review B **108**, 064422-1-064422-5 (2023)
- Rosas-Huerta J.L., Wolber J., Minaud C., Fabelo O., Ritter C., Mentré O., Arévalo-López Á.M. [2D to 3D magnetism in synthetic micas](#)  
Advanced Science **11**, 2408266-1-2408266-5 (2024)
- Rossi C., Tengattini A., Viggiani G. [A constitutive model for lightly cemented granular materials](#)  
Computers and Geotechnics **174**, 106550-1-106550-16 (2024)
- Ruiqi C. [Natural and synthetic oxide phases with f-elements: recrystallization, crystal chemistry and properties](#)  
PhD Thesis (2024)
- Russo D., Di Venere A., Wurm F.R., Moulin M., Härtlein M., Garvey C.J., Teixeira J. [Investigation of the structure of protein-polymer conjugates in solution reveals the impact of protein deuteration and the size of the polymer on its thermal stability](#)  
Protein Science **33**, e5032-1-e5032-12 (2024)
- Saadat S., Arlt T., Wilhelm F., Kardjilov N., Sans-Planell O., Hopfer L., Regnet F., Helfen L., Markötter H., Wilde F., Manke I., Scholta J., Holzle M. [Understanding the impact of gas diffusion layer degradation on water inventory in low temperature PEM fuel cells for heavy duty vehicles application: Operando X-ray and neutron imaging study](#)  
ECS Transactions **114**, 415-426 (2024)

Sanchez-Fernandez A., Poon J.F., Leung A.E., Prévost S.F., Dicko C. [Stabilization of non-native folds and programmable protein gelation in compositionally designed deep eutectic solvents](#)

ACS Nano **18**, 18314-18326 (2024)

Sanchez-Poncela M., Cabeza S., Martínez J.M., Cabrera A., Rementeria R. [Microstructural and neutron residual stress characterization of 316L laser-powder bed fusion simplified end-use part: A modelling benchmark](#)

Materials and Design **237**, 1125261-1-1125261-17 (2024)

Santoro M., Rouquette J., Fabbiani M., Di Renzo F., Coasne B., Dong W., Glazyrin K., Haines J. [Strong swelling and symmetrization in siliceous zeolites due to hydrogen insertion at high pressure](#)

Angewandte Chemie International Edition **63**, e202406425-1-e202406425-7 (2024)

Santoro V., Andersen K.H., Bentley P., Bernasconi M., Bertelsen M., Beßler Y., Bianchi A., Bryś T., Campi D., Chambon A., Czamler V., Di Julio D.D., Dian E., Dunne K., Ferreira M.J., Fierlinger P., Friman-Gayer U., Folsom B.T., Gaye A., Gorini G., Happe C., Holl M., Kamyshkov Y., Kittelmann T., Klinkby E.B., Kolevator R., Laporte S.I., Lauritzen B., Márquez Damian J.I., Meirose B., Mezei F., Milstead D., Muhrer G., Neshvizhevsky V., Rataj B., Rizzi N., Rosta L., Samothrakitis S., Schober H., Selknaes J.R., Silverstein S., Strobl M., Strothmann M., Takibayev A., Wagner R., Willendrup P., Xu S., Yiu S.C., Zanini L., Zimmer O. [The HighNESS project at the European Spallation Source: Current status and future perspectives](#)

Nuclear Science and Engineering **198**, 31-63 (2024)

Sapstead R.M., Dalglish R.M., Ferreira V.C., Beebee C., Watkins E., Hillman A.R., Ryder K.S., Smith E.L., Steinke N.J. [Time-resolved spatial distributions of individual components of electroactive films during potentiodynamic electrodeposition](#)

ACS Physical Chemistry Au **4**, 615-619 (2024)

Sartori T.K.S., Laurini L.H., Fourati H., Bastos R.P. [Effectiveness of attitude estimation processing approaches in tolerating radiation soft errors](#)

IEEE Transactions on Nuclear Science **70**, 1658-1665 (2023)

Schilberg J. [Characterization of silicon photomultipliers for the PERC experiment](#)

PhD Thesis (2024)

Schlaich A., Vandamme M., Plazanet M., Coasne B. [Bridging microscopic dynamics and hydraulic permeability in mechanically-deformed nanoporous materials](#)

ACS Nano **18**, 26011-26023 (2024)

Schumann D., Maugeri E., Dai Y., Dressler R., Köster U. [Towards a re-determination of the <sup>42</sup>Ar half-life](#)

Journal of Radioanalytical and Nuclear Chemistry **333**, 3615-3620 (2024)

Schwaighofer B., Appel M., González M.A., Evans I.R. [Oxide ion dynamics in hexagonal perovskite mixed conductor Ba<sub>7</sub>Nb<sub>4</sub>MoO<sub>20</sub>: a comprehensive \*ab initio\* molecular dynamics study](#)

Materials Advances **5**, 1676-1682 (2024)

Schwaighofer B., González M.A., Evans I.R. [Computational insights into Dion-Jacobson type oxide ion conductors](#)

Journal of Physical Chemistry C **128**, 8894-8899 (2024)

Schweiger C., Braß M., Debierre V., Door M., Dorrer H., Düllmann C.E., Enss C., Filianin P., Gastaldo L., Harman Z., Haverkort M.W., Herkenhoff J., Indelicato P., Keitel C.H., Kromer K., Lange D., Novikov Y.N., Renisch D., Rischka A., Schüssler R.X., Eliseev S., Blaum K. [Penning-trap measurement of the  \$Q\$  value of electron capture in  \$^{163}\text{Ho}\$  for the determination of the electron neutrino mass](#)

Nature Physics **20**, 921-927 (2024)

Sebold S.R., Neuwirth T., Tengattini A., Cubitt R., Gilch I., Mühlbauer S., Schulz M. [BNPLA: borated plastic for 3D-printing of thermal and cold neutron shielding](#)

Scientific Reports **14**, 19348-1-19348-16 (2024)

Seo D., Tengattini A., Viggiani G., Buscarnera G. [Experimental and analytical assessment of fracture criteria for non-spherical sand grains](#)

Granular Matter **26**, 1-17 (2024)

Seyffertitz M., Stock S., Rauscher M.V., Prehal C., Haas S., Porcar L., Paris O. [Are SAXS and SANS suitable to extract information on the role of water for electric double-layer formation at the carbon - aqueous electrolyte interface?](#)

Faraday Discussions **249**, 363-380 (2024)

Sharma S., Ritter C., Adroja D.T., Stenning G.B.G. [Unveiling the structural phase transition and magnetic structure of ternary boride  \$\text{PrIr}\_3\text{B}\_2\$](#)

Journal of Physics Condensed Matter **36**, 085802-1-085802-7 (2024)

Sharma V.K., Srinivasan H., Gupta J., Mitra S. [Lipid lateral diffusion: mechanisms and modulators](#)

Soft Matter **20**, 7763-7796 (2024)

Sheath B.C., Savvin S., Clarke S.J. [Contrasting magnetic structures in the quaternary sulfides  \$\text{Ba}\_2\text{FeMS}\_5\$  \( \$M = \text{Sb}, \text{Bi}\$ \)](#)

Inorganic Chemistry **63**, 23267-23275 (2024)

Skog A.E., Paracini N., Gerelli Y., Skepö M. [Translocation of antimicrobial peptides across model membranes: The role of peptide chain length](#)

Molecular Pharmaceutics **21**, 4082-4097 (2024)

Soh J.R., Sánchez-Ramírez I., Yang X., Sun J., Zivkovic I., Rodríguez-Velamazán J.A., Fabelo O., Stunault A., Bombardi A., Balz C., Le M.D., Walker H.C., Dil J.H., Prabhakaran D., Rønnow H.M., de Juan F., Vergniory M.G., Boothroyd A.T. [Weyl metallic state induced by helical magnetic order](#)

npj Quantum Materials **9**, 7-1-7-10 (2024)

Solana-Madruga E., Dos Santos-García A.J., Ritter C., Arévalo-López Á.M., Ávila-Brandé D., Urones-Garrote E., Saéz-Puche R. [Large magnetocaloric effect due to spin-glass behavior in the  \$\(\text{Mn}\_{1/3}\text{R}\_{2/3}\)\_2\(\text{Mn}\_{1/3}\text{Sb}\_{2/3}\)\_2\text{O}\_7\$  pyrochlore series](#)

Solid State Sciences **150**, 107499-1-107499-6 (2024)

Solana-Madruga E., Mentré O., Tsirlin A.A., Huvé M., Khalyavin D., Ritter C., Arévalo-López Á.M. [CoVO<sub>3</sub> High-pressure polymorphs: To order or not to order?](#)  
Advanced Science **11**, 2307766-1-2307766-5 (2024)

Sonaglioni D., Libera V., Tombari E., Peters J., Natali F., Petrillo C., Comez L., Capaccioli S., Paciaroni A. [Dynamic personality of proteins and effect of the molecular environment](#)  
Journal of Physical Chemistry Letters **15**, 5543-5548 (2024)

Sougoti M., Le Marrec F., Beaufils S., Ollivier J., Bourges P., Toudic B., Ecolivet C. [Phase diagram and deuteration contribution to the phonon analysis of the normal-to-incommensurate phase transition of 4-4' dichlorobiphenyl sulfone determined using Raman and neutron scattering](#)  
Physical Review B **110**, 024103-1-024103-11 (2024)

Spinozzi F., Moretti P., Perinelli D.R., Corucci G., Piergiovanni P., Amenitsch H., Sancini G.A., Franzese G., Blasi P. [Small-angle X-ray scattering unveils the internal structure of lipid nanoparticles](#)  
Journal of Colloid and Interface Science **662**, 446-459 (2024)

Sporer E., Deville C., Straathof N.J.W., Bruun L.M., Köster U., Jensen M., Andresen T.L., Kempen P.J., Henriksen J.R., Jensen A.I. [Optimized chelator and nanoparticle strategies for high-activity <sup>103</sup>Pd-loaded biodegradable brachytherapy seeds](#)  
EJNMMI Radiopharmacy and Chemistry **9**, 92-1-92-18 (2024)

Srivatsav A.T., Liang K., Jaworek M.W., Dong W., Matsuo T., Grélard A., Peters J., Winter R., Duan M., Kapoor S. [Residual membrane fluidity in mycobacterial cell envelope layers under extreme conditions underlines membrane-centric adaptation](#)  
Journal of Physical Chemistry B **128**, 6838-6852 (2024)

Stare J., Grdadolnik J., Mason S., Albinati A., Eckert J. [4-Methoxypicolinic acid N-oxide: One of the shortest hydrogen bonds known characterized by neutron diffraction, inelastic neutron scattering, infrared spectroscopy, and periodic DFT calculations](#)  
ACS Omega **9**, 38116-38125 (2024)

Staško D., Vlášková K., Vojtasová D., Hájek F., Král P., Colman R.H., Klicpera M. [The synthesis of the rare earth A<sub>2</sub>Zr<sub>2</sub>O<sub>7</sub> single crystals by simplified laser-heated floating hot zone and pedestal methods](#)  
Materials Today Chemistry **39**, 102153-1-102153-8 (2024)

Stefanescu I., Guérard B., Hall-Wilton R., Jackson A., Khaplanov A., Klein M., Lai C.C., Piscitelli F., Raspino D., Schmidt C.J., Schweika W., Svensson P.O. [<sup>10</sup>Boron-film-based gas detectors at ESS](#)  
Journal of Neutron Research **26**, 83-109 (2024)

Stekiel M., Čermák P., Franz C., Meven M., Legut D., Simeth W., Hansen U.B., Fåk B., Weber S., Schönmann R., Kumar V., Nemkovski K., Deng H., Bauer A., Pflaiderer C., Schneidewind A. [Long-range magnetic order in CePdAl<sub>3</sub> enabled by orthorhombic deformation](#)

Physical Review Research **6**, 023117-1-023117-11 (2024)

Stendahl S., Ghafoor N., Schwartzkopf M., Zubayer A., Birch J., Eriksson F. [Morphology of buried interfaces in ion-assisted magnetron sputter-deposited  \$^{11}\text{B}\_4\text{C}\$ -containing Ni/Ti multilayer neutron optics investigated by grazing-incidence small-angle scattering](#)  
ACS Applied Materials & Interfaces **16**, 22665-22675 (2024)

Stendahl S., Ghafoor N., Zubayer A., Lorentzon M., Vorobiev A., Birch J., Eriksson F. [Material design optimization for large-m  \$^{11}\text{B}\_4\text{C}\$ -based Ni/Ti supermirror neutron optics](#)  
Materials and Design **243**, 113061-1-113061-10 (2024)

Stevens M.C., Taylor N.M., Guo X., Hussain H., Mahmoudi N., Cattoz B.N., Leung A.H.M., Dowding P.J., Vincent B., Briscoe W.H. [Diblock bottlebrush polymer in a non-polar medium: Self-assembly, surface forces, and superlubricity](#)  
Journal of Colloid and Interface Science **658**, 639-647 (2024)

Stobbs J.A., Pensini E., Ghazani S.M., Leontowich A.F.G., Quirk A., Tu K., Prévost S., Mahmoudi N., Fameau A.L., Marangoni A.G. [Phospholipid self-assembly in cocoa butter provides a crystallizing surface for seeding the form V polymorph in chocolate](#)  
Crystal Growth & Design **24**, 2685-2699 (2024)

Stock S., Seyffertitz M., Kostoglou N., Rauscher M.V., Presser V., Demé B., Cristiglio V., Kratzer M., Rols S., Mitterer C., Paris O. [Hydrogen densification in carbon nanopore confinement: Insights from small-angle neutron scattering using a hierarchical contrast model](#)  
Carbon **221**, 118911-1-118911-13 (2024)

Streb A., Danaci D., Lively R., Llewellyn P., Matsumoto A., Mazzotti M., Pini R., Coasne B. [Towards carbon neutral scientific societies: a case study with the International Adsorption Society](#)  
Adsorption **30**, 1291-1301 (2024)

Susloparova A.E., Bolletta J.P., Kobzi B., Paecklar A.A., Jouen S., Fauth F., Nachbaur V., Nassif V., Suard E., Sedmidubsky D., Kurbakov A.I., Maignan A., Martin C. [Structural and magnetic properties of  \$\text{SmCrTiO}\_5\$](#)   
Physical Review B **110**, 224429-1-224429-12 (2024)

Sviták D. [Study of spin-waves in the triangular lattice antiferromagnetic systems](#)  
PhD Thesis (2024)

Szymoniak P., Kolmangadi M.A., Böhning M., Frick B., Appel M., Mole R.A., de Souza N.R., Zorn R., Schönhals A. [Confined segmental diffusion in nanophase separated Janus polynorbomenes as investigated by quasielastic neutron scattering](#)  
Macromolecules **57**, 8562-8575 (2024)

Tamtögl A., Sacchi M., Schwab V., Koza M.M., Fouquet P. [Molecular motion of a nanoscopic moonlander via translations and rotations of triphenylphosphine on graphite](#)  
Communications Chemistry **7**, 78-1-78-9 (2024)

Tavagnacco L., Zanatta M., Buratti E., Bertoldo M., Chiessi E., Appel M., Natali F., Orecchini A., Zaccarelli E. [Water slowing down drives the occurrence of the low temperature dynamical transition in microgels](#)  
Chemical Science **15**, 9249-9257 (2024)

Tawse D.N., Fop S., Ritter C., Martinez-Felipe A., McLaughlin A.C. [A variable temperature neutron diffraction study of dual ion conducting  \$\text{Sr}\_3\text{V}\_2\text{O}\_8\$](#)   
Journal of Solid State Chemistry **331**, 124512-1-124512-6 (2024)

Tea L., Willner L., Waldorf C., Matsarskaia O., Schweins R., Förster S., Stellbrink J. [Surface charged polymeric micelles - A tunable model system studied by SANS](#)  
Macromolecules **57**, 5818-5830 (2024)

Teng X., Tam D.W., Chen L., Tan H., Xie Y., Gao B., Granroth G.E., Ivanov A., Bourges P., Yan B., Yi M., Dai P. [Spin-charge-lattice coupling across the charge density wave transition in a Kagome lattice antiferromagnet](#)  
Physical Review Letters **133**, 046502-1-046502-7 (2024)

Tertov I., Kwak H., Suard E., Cabelguen P.E., Kumakura S., Fauth F., Hansen T., Masquelier C., Croguennec L. [Impact of Mn/Ni and Li/\(Mn+Ni\) ratios on phase equilibrium and electrochemical performance of the high voltage spinel  \$\text{LiNi}\_{0.5}\text{Mn}\_{1.5}\text{O}\_4\$](#)   
Journal of Power Sources **623**, 235447-1-235447-13 (2024)

Thilakan K.K., Denoel F., Huang Y.C., Fabelo O., Mathieu R., Gómez C.P., Sahlberg M. [Single-crystal neutron diffraction study on the  \$\text{Ho}\_{13.6}\text{Au}\_{61.1}\text{Al}\_{25.3}\$  quasicrystal approximant](#)  
Journal of Alloys and Compounds **1002**, 175263-1-175263-6 (2024)

Thomas G.M., Wu Y., Leite W., Pingali S.V., Weiss K.L., Grant A.J., Diggs M.W., Schmidt-Krey I., Gutishvili G., Gumbart J.C., Urban V.S., Lieberman R.L. [SANS reveals lipid-dependent oligomerization of an intramembrane aspartyl protease from \*H. volcanii\*](#)  
Biophysical Journal **123**, 1846-1856 (2024)

Tidey J.P., Dey U., Sánchez A.M., Chen W.T., Chen B.H., Chuang Y.C., Fernández-Díaz M.T., Bristowe N.C., Beanland R., Senn M.S. [Structural origins of dielectric anomalies in the filled tetragonal tungsten bronze  \$\text{Sr}\_2\text{NaNb}\_5\text{O}\_{15}\$](#)   
Communications Materials **5**, 71-1-71-10 (2024)

Tikhanovskii A.Y., Ivanov V.Y., Kuzmenko A.M., Stunault A., Fabelo O., Ressouche E., Simonet V., Ballou R., Kibalin I.A., Pimenov A., Mukhin A.A., Constable E. [Resolving the local distortions of Ising-like moments in magnetoelectric Ho-doped langasite](#)  
Physical Review B **109**, 214433-1-214433-11 (2024)

Toomey R. [Computational and experimental advances in nuclear magnetic resonance for high resolution structures](#)  
PhD Thesis (2024)

Toomey R., Wang L., Heider E.C., Hartman J.D., Nichols A.J., Myles D.A.A., Gardberg A.S., McIntyre G.J., Zeller M., Mehta M.A., Harper J.K. [NMR-guided refinement of crystal structures using  \$^{15}\text{N}\$  chemical shift tensors](#)  
CrystEngComm **26**, 3289-3302 (2024)

- Tötzke C., Kozhuharova B., Kardjilov N., Lenoir N., Manke I., Oswald S.E. [Non-invasive 3D analysis of microplastic particles in sandy soil — Exploring feasible options and capabilities](#) *Science of the Total Environment* **907**, 167927-1-167927-12 (2024)
- Tracy M.E., Kasting B.J., Herrero C., Berthier L., Richert R., Guiseppi-Elie A., Ediger M.D. [Initial stages of rejuvenation of vapor-deposited glasses during isothermal annealing: Contrast between experiment and simulation](#) *Journal of Chemical Physics* **161**, 224504 -1-224504 -12 (2024)
- Tragheim B.R.M., Ritter C., Senn M.S. [Proximity to a state with orbital order and charge disorder in optimally doped  \$R\_{5/8}Ca\_{3/8}MnO\_3\$  perovskites](#) *Physical Review B* **110**, 235141-1-235141-10 (2024)
- Tripathi A., Pandey A., Alonso J.A., Erasmus R., Fernández-Díaz M.T., Tripathi S. [Origin of zero thermal expansion in an average cubic structure in Pb-free relaxor ferroelectrics](#) *Applied Physics Letters* **125**, 102901-1-102901-6 (2024)
- Tung C.H., Chen H.L., Huang G.R., Porcar L., Impéror M., Carrillo J.M.Y., Wang Y., Sumpter B.G., Shinohara Y., Taylor J., Do C., Chen W.R. [Identifying topological defects in lamellar phases through contour analysis of complex wave fields](#) *Macromolecules* **57**, 6979–6989 (2024)
- Tung C.H., Chen M.Z., Chen H.L., Huang G.R., Porcar L., Chang M.C., Carrillo J.M., Wang Y., Sumpter B.G., Shinohara Y., Do C., Chen W.R. [Inferring effective electrostatic interaction of charge-stabilized colloids from scattering using deep learning](#) *Journal of Applied Crystallography* **57**, 1047-1058 (2024)
- Tung C.H., Hsiao Y.J., Chen H.L., Huang G.R., Porcar L., Chang M.C., Carrillo J.M., Wang Y., Sumpter B.G., Shinohara Y., Taylor J., Do C., Chen W.R. [Unveiling mesoscopic structures in distorted lamellar phases through deep learning-based small angle neutron scattering analysis](#) *Journal of Colloid and Interface Science* **659**, 739-750 (2024)
- Ukleev V., Ajejas F., Devishvili A., Vorobiev A., Steinke N.J., Cubitt R., Luo C., Abrudan R.M., Radu F., Cros V., Reyren N., White J.S. [Observation by SANS and PNR of pure Néel-type domain wall profiles and skyrmion suppression below room temperature in magnetic  \$\[Pt/CoFeB/Ru\]\_{10}\$  multilayers](#) *Science and Technology of Advanced Materials* **25**, 2315015-1-2315015-13 (2024)
- Ukleev V., Khassanov A., Snigireva I., Konovalov O., Vorobiev A. [Mesoscale self-organization of polydisperse magnetic nanoparticles at the water surface](#) *Journal of Chemical Physics* **160**, 074703-1-074703-8 (2024)
- Ulbricht A., Dykas J., Chekhonin P., Altstadt E., Bergner F. [Small-angle neutron scattering study of neutron-irradiated and post-irradiation annealed VVER-1000 reactor pressure vessel weld material](#) *Frontiers in Nuclear Engineering* **2**, 1176288-1-1176288-12 (2023)

Unruh T., Götz K., Vogel C., Fröhlich E., Scheurer A., Porcar L., Steiniger F. [Mesoscopic structure of lipid nanoparticle formulations for mRNA drug delivery: Comirnaty and drug-free dispersions](#)

ACS Nano **18**, 9746-9764 (2024)

Vagias A., Manouras T., Büchner A., Gutfreund P., Porcar L., Jacques M., Chiappisi L., Kosbahn D.P., Wolf M., Guasco L., Dahint R., Vamvakaki M., Müller-Buschbaum P. [Grazing-incidence small-angle neutron scattering at high pressure \(HP-GISANS\): a soft matter feasibility study on grafted brush films](#)

Journal of Applied Crystallography **57**, 1978-1983 (2024)

Valverde A., Alkain E., Rio-López N.A., Lezama L., Fidalgo-Marijuan A., Laza J.M., Wuttke S., Porro J.M., Oyarzabal I., Jiménez-Ruiz M., García Sakai V., Arias P.L., Agirrezabal-Telleria I., Fernández de Luis R. [Enzyme-mimicking of copper-sites in metal-organic frameworks for oxidative degradation of phenolic compounds](#)

Journal of Materials Chemistry A **12**, 4555-4571 (2024)

Vaney J.B., Morin C., Carreaud J., Candolfi C., Piarristeguy A., Bigot M., Monnier J., Pradel A., Nassif V., Cuello G., Levinský P., Lenoir B., Cadars S., Bouzid A., Masson O., Laval J.P., Cornette J., Colas M., Alleno E., Delaizir G. [AsTe<sub>3</sub>: A novel crystalline semiconductor with ultralow thermal conductivity obtained by congruent crystallization from parent glass](#)

Journal of Alloys and Compounds **1004**, 175918-1-175918-12 (2024)

Vayer F., Petit S., Damay F., Embs J., Rols S., Colin C., Lhotel E., Bounoua D., Dragoë N., Bérardan D., Decorse C. [Entropy-stabilized materials as a platform to explore terbium-based pyrochlore frustrated magnets](#)

Communications Materials **5**, 162-1-162-10 (2024)

Venzmer J. [Interfacial properties of \(super\)spreading trisiloxane surfactants](#)

Current Opinion in Colloid & Interface Science **72**, 101807-1-101807-7 (2024)

Věrtát P., Klicpera M., Fabelo O., Heczko O., Straka L. [Anharmonic incommensurate structure modulation in Ni-Mn-Ga martensite exhibiting highly mobile twin boundaries](#)

Scripta Materialia **252**, 116251-1-116251-6 (2024)

Vieira Lima F., Hall S., Engqvist J., Tudisco E., Woracek R. [A novel testing system for hydromechanical investigation of rock materials in neutron and X-ray imaging instruments](#)

International Journal of Rock Mechanics and Mining Sciences **174**, 105647-1-105647-13 (2024)

Vitiello G., Luchini A., Di Napoli M., Gallucci N., Cavasso D., Koutsioubas A., Varcamonti M., Zanfardino A., Fragneto G., Paduano L. [The affinity towards the hydrophobic region of biomimicking bacterial membranes drives the antimicrobial activity of EFV12 peptide from \*Lactobacillus gasseri\* gut microbiota](#)

Journal of Molecular Liquids **414**, 126086-1-126086-9 (2024)

Vivod M.B., Jaglicic Z., King G., Hansen T.C., Lozinsek M., Dragomir M. [Mechanochemical synthesis and magnetic properties of the mixed-valent binary silver\(I,II\) fluorides, Ag<sup>I</sup><sub>2</sub>Ag<sup>II</sup>F<sub>4</sub> and Ag<sup>I</sup>Ag<sup>II</sup>F<sub>3</sub>](#)

Journal of the American Chemical Society **146**, 30510-30517 (2024)

Voronin V.V., Shapiro D.D., Semenikhin S.Y., Hansen T.C. [Search for a new internucleon interaction using neutron powder diffraction](#)

Journal of Experimental and Theoretical Physics **137**, 826-833 (2023)

Vottero E., Groppo E., Piovano A. [Supported metal nanoparticles-based catalysts and their interactions with H<sub>2</sub>: Insights from inelastic neutron scattering spectroscopy](#)

ChemCatChem **16**, e202301127-1-e202301127-17 (2024)

Vu P.N.H., Radlinski A.P., Blach T., Schweins R., Lemmel H., Daniels J., Regenauer-Lieb K. [Revealing nanoscale sorption mechanisms of gases in a highly porous silica aerogel](#)

Journal of Applied Crystallography **57**, 1311-1322 (2024)

Wang G., Bratrud G., Chang C.L., Chaplinsky L., Chen R., Cudmore E., Van De Pontseele W., Figueroa-Feliciano E., Formaggio J.A., Harrington P., Hertel S.A., Hong Z., Kennard K.T., Li M., Lisovenko M., Mateo L.O., Mayer D.W., Novati V., Patel P.K., Pinckney H.D., Raha N., Reyes F.C., Rodríguez A., Schmidt B., Stachurska J., Veihmeyer C., Winslow L., Yefremenko V.G., Zhang J. [Properties of Low T<sub>C</sub> AlMn TES](#)

Journal of Low Temperature Physics **215**, 209-216 (2024)

Wang X., Puzniak K., Schmalzl K., Balz C., Matsuda M., Okutani A., Hagiwara M., Ma J., Wu J., Lake B. [Spin dynamics of the E<sub>8</sub> particles](#)

Science Bulletin **69**, 2974-2977 (2024)

Wang Z., Többens D.M., Franz A., Savvin S., Breternitz J., Schorr S. [Uncovering cation disorder in ternary Zn<sub>1+x</sub>Ge<sub>1-x</sub>\(N<sub>1-x</sub>O<sub>x</sub>\)<sub>2</sub> and its effect on the optoelectronic properties](#)

Journal of Materials Chemistry C **12**, 1124-1131 (2024)

Warbinek J., Rickert E., Raeder S., Albrecht-Schönzart T., Andelic B., Auler J., Bally B., Bender M., Berndt S., Block M., Brizard A., Chauveau P., Cheal B., Chhetri P., Claessens A., de Roubin A., Devlin C., Dorrer H., Düllmann C.E., Ezold J., Ferrer R., Gadelshin V., Gaiser A., Giacoppo F., Goriely S., Gutiérrez M.J., Harvey A., Hasse R., Heinke R., Heßberger F.P., Hilaire S., Kaja M., Kaleja O., Kieck T., Kim E., Kneip N., Köster U., Kraemer S., Laatiaoui M., Lantis J., Lecesne N., Loria Basto A.T., Mistry A.K., Mokry C., Moore I., Murböck T., Münzberg D., Nazarewicz W., Niemeyer T., Nothhelfer S., Péru S., Raggio A., Reinhard P.G., Renisch D., Rey-Herme E., Romans J., Romero Romero E., Runke J., Ryssens W., Savajols H., Schneider F., Sperling J., Stemmler M., Studer D., Thörle-Pospiech P., Trautmann N., Urquiza-González M., van Beek K., Van Cleve S., Van Duppen P., Vandebrouck M., Verstraelen E., Walther T., Weber F., Wendt K. [Smooth trends in fermium charge radii and the impact of shell effects](#)

Nature **634**, 1075-1079 (2024)

Warzanskyj W., Özcan B., Luo J., Bordas R., Schenk T., Cormier J., Pirling T., Ocaña J.L., Cabeza S. [Mechanical and high-temperature characterization of additively manufactured Ni-superalloys at SALSA neutron strain diffractometer](#)

Nuclear Instruments and Methods in Physics Research A **1067**, 169709-1-169709-14 (2024)

Weidemann M., Werhahn D., Mayer C., Klager S., Ritter C., Manuel P., Attfield J.P., Kloß S.D. [High-pressure synthesis of Ruddlesden-Popper nitrides](#)

Nature Chemistry **16**, 1723-1731 (2024)

Weiler E. [Characterization of fission fragments identification spectrometer](#)  
PhD Thesis (2024)

Weis H., Kargl F., Yang F., Unruh T., Koza M.M., Meyer A. [Self-diffusion in Germanium-rich liquid Germanium-Nickel investigated by quasielastic neutron scattering](#)  
*Physica Scripta* **99**, 125927-1-125927-7 (2024)

Welsh T.A., Egan J.G., Dietrich B., Rafferty N., Ginesi R.E., Douth J., Schweins R., Draper E.R. [The effects of amino acid functionalisation on the optoelectronic properties and self-assembly of perylene bisimides](#)  
*Journal of Physics: Materials* **7**, 015004-1-015004-12 (2024)

Wen J., de Rango P., Allain N., Novelli M., Grosdidier T., Laversenne L. [In situ observation and kinetic modeling of the fundamental mechanisms underlying hydrogen sorption in forged Mg-Mg<sub>2</sub>Ni composites](#)  
*International Journal of Hydrogen Energy* **94**, 1160-1173 (2024)

Wieser J., Wardecki D., Fischer J.W.A., Newton M.A., Dejoie C., Knorpp A.J., Hansen T.C., Jeschke G., Rzepka P., van Bokhoven J.A. [Quantifying the hydration-dependent dynamics of Cu migration and activity in zeolite omega for the partial oxidation of methane](#)  
*Angewandte Chemie International Edition* **63**, e202407395-1-e202407395-9 (2024)

Wrammerfors E.T.B., Törnquist E., Pierantoni M., Sjögren A., Tengattini A., Kaestner A., in't Zandt R., Englund M., Isaksson H. [Exploratory neutron tomography of articular cartilage](#)  
*Osteoarthritis and Cartilage* **32**, 702-712 (2024)

Wright T., Smith A.G., Sosnin N.V., Bennett S.A., Davies P.J., Popescu A.V., Ryan J.A., Sekhar A., Warren S., Aberle O., Amaducci S., Andrzejewski J., Audouin L., Bacak M., Balibrea J., Barbagallo M., Bečvář F., Berthoumieux E., Billowes J., Bosnar D., Brown A., Caamaño M., Calviño F., Calviani M., Cano-Ott D., Cardella R., Casanovas A., Cerutti F., Chen Y.H., Chiaveri E., Colonna N., Cortés G., Cortés-Giraldo M.A., Cosentino L., Damone L.A., Diakaki M., Domingo-Pardo C., Dressler R., Dupont E., Dúran I., Fernández-Domínguez B., Ferrari A., Ferreira P., Finocchiaro P., Furman V., Göbel K., García A.R., Gawlik-Ramiega A., Gilardoni S., Glodariu T., Gonçalves I.F., González-Romero E., Griesmayer E., Guerrero C., Günsing F., Harada H., Heinitz S., Heyse J., Jenkins D.G., Jericha E., Käppeler F., Kadi Y., Kalamara A., Kavrigin P., Kimura A., Kivel N., Kokkoris M., Krtička M., Kurtulgil D., Leal-Cidoncha E., Lederer-Woods C., Leeb H., Leredegui-Marco J., Meo S.L., Lonsdale S.J., Macina D., Manna A., Marganec J., Martínez T., Masi A., Massimi C., Mastinu P., Mastromarco M., Maugeri E.A., Mazzone A., Mendoza E., Mengoni A., Milazzo P.M., Mingrone F., Musumarra A., Negret A., Nolte R., Oprea A., Patronis N., Pavlik A., Perkowski J., Porras I., Praena J., Quesada J.M., Radeck D., Rauscher T., Reifarh R., Rubbia C., Sabaté-Gilarte M., Saxena A., Schillebeeckx P., Schumann D., Sedyshev P., Stamatopoulos A., Tagliente G., Taín J.L., Tarifeño-Saldivia A., Tassan-Got L., Valenta S., Vannini G., Variale V., Vaz P., Ventura A., Vlachoudis V., Vlastou R., Wallner A., Weiss C., Woods P.J., Žugec P. [Measurement of the prompt fission  \$\gamma\$ -rays from slow neutron-induced fission of <sup>235</sup>U with STEFF](#)  
*European Physical Journal A* **60**, 70-1-70-11 (2024)

- Wu L.F., Mao L.F., Wang Z. [Effective entanglement and constraint release in deformed polymer melts](#)  
Macromolecules **57**, 3202-3211 (2024)
- Xiang J., Zhang C., Gao Y., Schmidt W., Schmalzl K., Wang C.W., Li B., Xi N., Liu X.Y., Jin H., Li G., Shen J., Chen Z., Qi Y., Wan Y., Jin W., Li W., Sun P., Su G. [Giant magnetocaloric effect in spin supersolid candidate Na<sub>2</sub>BaCo\(PO<sub>4</sub>\)<sub>2</sub>](#)  
Nature **625**, 270-275 (2024)
- Xu S., DiJulio D.D., Márquez Damian J.I., Kittelmann T., Bernasconi M., Campi D., Abou El Kheir O., Laporte S.I., Rataj B., Czamlar V., Zimmer O., Gorini G., Santoro V., Muhrer G. [Physical model of neutron scattering by clathrate hydrate and C<sub>60</sub> hosting paramagnetic oxygen molecules](#)  
Journal of Physics Condensed Matter **36**, 385904-1-385904-15 (2024)
- Yamaguchi T., Dukhin A., Ryu Y.J., Zhang D., Borodin O., González M.A., Yamamuro O., Price D.L., Saboungi M.L. [Non-Newtonian dynamics in water-in-salt electrolytes](#)  
Journal of Physical Chemistry Letters **15**, 76-80 (2024)
- Yanda P., Boudjada N., Rodríguez-Carvajal J., Sundaresan A. [Exploring magnetism and magnetoelectric properties in the green phase of R<sub>2</sub>BaCuO<sub>5</sub> \(R=Er, Eu, Y, Tm, and Lu\): The role of 4f-3d exchange coupling](#)  
Physical Review B **109**, 104411-1-104411-10 (2024)
- Yanda P., Sinha A., Waghmare U.V., Suard E., Rodríguez-Carvajal J., Athinarayanan S. [Origins of polar crystal structure and multiferroicity in the antiferromagnet TbFeWO<sub>6</sub>](#)  
Chemistry of Materials **36**, 8458-8465 (2024)
- Yang D., Rochat S., Krzystyniak M., Kulak A., Olivier J., Ting V.P., Tian M. [Investigation of the dynamic behaviour of H<sub>2</sub> and D<sub>2</sub> in a kinetic quantum sieving system](#)  
ACS Applied Materials & Interfaces **16**, 12467-12478 (2024)
- Yang H., Chen G., Ni J., Praetz S., Kober D., Cuello G., Dal Molin E., Gili A., Schlesiger C., Bekheet M.F., Hanaor D.A.H., Gurlo A. [Synthesis and electrochemical performance of high-entropy spinel-type oxides derived from multimetallic polymeric precursors](#)  
Advanced Energy and Sustainability Research **5**, 2400146-1-2400146-17 (2024)
- Yartys V.A., Akselrud L.G., Denys R.V., Vajeeston P., Ouladdiaf B., Dankelman R., Plomp J., Koldemir A., Schumacher L., Kremer R.K., Pöttgen R., Wragg D.S., Eggert B.G.F., Berezovets V. [Crystal, magnetic structures, and bonding interactions in the TiNiSi-type hydride CeMgSnH: Experimental and computational studies](#)  
Chemistry of Materials **36**, 6257-6268 (2024)
- Ye Q. [Étude des diagrammes de phases ternaires La<sub>2</sub>O<sub>3</sub> - \(Mo/W\)O<sub>3</sub> - CaO et exploration des propriétés de conduction ionique](#)  
PhD Thesis (2023)
- Yi C., Peshcherenko N., Zhou Y., Samanta K., Yang Q., Roychowdhury S., Yanda P., Borrmann H., Vergniory M.G., Zhang Y., Su Y., Shekhar C., Felser C. [Large topological Hall effect in a chiral antiferromagnet in hopping transport regime](#)

Physical Review Research **6**, 043295-1-043295-11 (2024)

Yuan Y., Yang M., Kloß S.D., Attfield J.P. [A new family of high oxidation state antiperovskite nitrides:  \$\text{La}\_3\text{MN}\_5\$  \(M=Cr, Mn and Mo\)](#)

Angewandte Chemie International Edition **63**, e202405498-1-e202405498-6 (2024)

Yue Z., Andreyev A.N., Barzakh A.E., Borzov I.N., Cubiss J.G., Algora A., Au M., Balogh M., Bara S., Bark R.A., Bernerd C., Borge M.J.G., Brugnara D., Chrysalidis K., Cocolios T.E., De Witte H., Favier Z., Fraile L.M., Fynbo H.O.U., Gottardo A., Grzywacz R., Heinke R., Illana A., Jones P.M., Judson D.S., Korgul A., Köster U., Labiche M., Le L., Lică R., Madurga M., Mărginean N., Marsh B., Mihai C., Năcher E., Neacșu C., Niță C., Olaizola B., Orce J.N., Page C.A.A., Page R.D., Pakarinen J., Papadakis P., Penyazkov G., Perea A., Piersa-Siłkowska M., Podolyák Z., Prosnjak S.D., Reis E., Rothe S., Sedlak M., Skripnikov L.V., Sotty C., Stegemann S., Tengblad O., Tolokonnikov S.V., Udías J.M., Van Duppen P., Warr N., Wojtaczka W. [Magnetic moments of thallium isotopes in the vicinity of magic  \$N=126\$](#)

Physics Letters B **849**, 138452-1-138452-7 (2024)

Yue Z., Barzakh A.E., Andreyev A.N., Borzov I.N., Cubiss J.G., Algora A., Au M., Balogh M., Bara S., Bark R.A., Bernerd C., Borge M.J.G., Brugnara D., Chrysalidis K., Cocolios T.E., De Witte H., Favier Z., Fraile L.M., Fynbo H.O.U., Gottardo A., Grzywacz R., Heinke R., Illana A., Jones P.M., Judson D.S., Korgul A., Köster U., Labiche M., Le L., Lică R., Madurga M., Mărginean N., Marsh B.A., Mihai C., Năcher E., Neacșu C., Niță C., Olaizola B., Orce J.N., Page C.A.A., Page R.D., Pakarinen J., Papadakis P., Perea A., Piersa-Siłkowska M., Podolyák Z., Reis E., Rothe S., Sedlak M., Sotty C., Stegemann S., Tengblad O., Tolokonnikov S.V., Udías J.M., Van Duppen P., Warr N., Wojtaczka W. [Charge radii of thallium isotopes near the  \$N=126\$  shell closure](#)

Physical Review C **110**, 034315-1-034315-9 (2024)

Zamponi M., Pyckhout-Hintzen W., Wischniewski A., Pipich V., Holderer O., Farago B., Coates G.W., Long B.K., Monkenbusch M., Richter D. [Dynamics of syndiotactic polypropylene](#)

Macromolecules **57**, 3098-3108 (2024)

Zanatta M., Orecchini A., Sacchetti F., Petrillo C. [Disclosing the nature of the collective THz dynamics in hydrogen bonded liquids](#)

Journal of Molecular Liquids **393**, 123550-1-123550-7 (2024)

Zanini L., Akhyani M., Bertelsen M., Bessler Y., Bryś T., Chambon A., Márquez Damian J.I., Folsom B., Nesvizhevsky V., Rataj B., Rizzi N., Santoro V., Shuai H., Strothmann M., Takibayev A., Wagner R., Zimmer O. [Moderator developments in HighNESS and feedback to compact sources design](#)

EPJ Web of Conferences **298**, 03001-1-03001-8 (2024)

Zanon I., Clément E., Goasduff A., Menéndez J., Miyagi T., Assié M., Ciemala M., Flavigny F., Lemasson A., Matta A., Ramos D., Rejmund M., Achouri L., Ackermann D., Barrientos D., Beaumel D., Benzoni G., Boston A.J., Boston H.C., Bottoni S., Bracco A., Brugnara D., de France G., de Sereville N., Delaunay F., Désesquelles P., Didierjean F., Domingo-Prato C., Dudouet J., Eberth J., Fernández D., Fougères C., Gadea A., Galtarossa F., Girard-Alcindor V., Gonzales V., Gottardo A., Hammache F., Harkness-Brennan L.J., Hess H., Judson D.S.,

Jungclauss A., Kaşkaş A., Kim Y.H., Kuşoğlu A., Labiche M., Leblond S., Lenain C., Lenzi S.M., Leoni S., Li H., Ljungvall J., Lois-Fuentes J., Lopez-Martens A., Maj A., Menegazzo R., Mengoni D., Michelagnoli C., Million B., Napoli D.R., Nyberg J., Pasqualato G., Podolyák Z., Pullia A., Quintana B., Recchia F., Regueira-Castro D., Reiter P., Rezyunkina K., Rojo J.S., Salsac M.D., Sanchis E., Şenyiğit M., Siciliano M., Sohler D., Stezowski O., Theisen C., Uteпов A., Valiente-Dobón J.J., Verney D., Zielinska M. [High-precision spectroscopy of  \$^{20}\text{O}\$  benchmarking \*ab initio\* calculations in light nuclei](#)  
Physical Review Letters **131**, 262501-1-262501-7 (2023)

Zbiri M., Guilbert A.A.Y. [Dynamics of polyalkylfluorene conjugated polymers: Insights from neutron spectroscopy and molecular dynamics simulations](#)  
Journal of Physical Chemistry B **128**, 6197-6206 (2024)

Zhakiyeva Z., Magnin V., Poulain A., Campillo S., Asta M.P., Besselink R., Gaboreau S., Claret F., Grangeon S., Rudic S., Rols S., Jiménez-Ruiz M., Bourg I.C., Van Driessche A.E.S., Cuello G.J., Fernández-Martínez A. [Water dynamics in calcium silicate hydrates probed by inelastic neutron scattering and molecular dynamics simulations](#)  
Cement and Concrete Research **184**, 107616-1-107616-15 (2024)

Zhang F., Feustel M.K., Skoda M.W.A., Jacobs R.M.J., Roosen-Runge F., Seydel T., Sztucki M., Schreiber F. [Effective interactions in protein solutions with and without clustering](#)  
Physica A **650**, 129995-1-129995-12 (2024)

Zhang W., Wei J., Zhou Y., Mao Y., Alonso J.A., López C.A., Fernández-Díaz M.T., Song Y., Ma X., Sun C. [Co-Ru bimetallic nanoparticles/oxygen deficient perovskite oxides as a highly efficient anode catalyst layer for direct-methane solid oxide fuel cells](#)  
Chemical Engineering Journal **498**, 155502-1-155502-13 (2024)

Zhang X., Romaguera A., Fabelo O., Fauth F., Herrero-Martín J., García-Muñoz J.L. [Pushing magnetic spirals beyond room temperature by reducing the uniaxial pyramidal elongation in layered Cu/Fe perovskites](#)  
Physical Review Research **6**, 033081-1-033081-10 (2024)

Zheng W.G., Balédent V., Oubaid Y., Auban-Senzier P., Colin C., Damay F., Pasquier C., Forget A., Colson D., Xu J.P., Yin W., Miao P., Foury-Leylekian P. [Study of the transport and magnetic properties of substituted  \$\text{Ba}\(\text{Fe}\_{1-x}\text{Ni}\_x\)\_2\(\text{Se}\_{1-y}\text{Te}\_y\)\_3\$](#)   
Physical Review B **109**, 184428-1-184428-7 (2024)

Zhou Y., Lee M.K., Hammouda S., Devi S., Yano S.I., Sibille R., Zaharko O., Schmidt W., Schmalzl K., Beauvois K., Ressouche E., Chang P.C., Huang C.H., Chang L.J., Brückel T., Su Y. [Ground-state magnetic structures of topological kagome metals  \$\text{RV}\_6\text{Sn}\_6\$  \( \$R=\text{Tb}, \text{Dy}, \text{Ho}, \text{Er}\$ \)](#)  
Physical Review Research **6**, 043291-1-043291-13 (2024)

Zhu Y., Porcar L., Ravula T., Batchu K.C., Lavoie T.L., Liu Y., Perez-Salas U. [Unexpected asymmetric distribution of cholesterol and phospholipids in equilibrium model membranes](#)  
Biophysical Journal **123**, 3923-3934 (2024)

Zika A., Agarwal M., Zika W., Guldi D.M., Schweins R., Gröhn F. [Photoacid-macroion assemblies: how photo-excitation switches the size of nano-objects](#)

Nanoscale **16**, 923-940 (2024)

Ziman T. [Memories of Vaughan from his student days and after](#)  
Journal of Knot Theory and Its Ramifications, 2340030-1-2340030-5 (2023)

Zitting A. [Investigating moisture behavior of wood nanostructure using experimental and simulated scattering](#)  
PhD Thesis (2024)