

Publications, Communications, etc. for Henry E. Fischer

As of 4 Jan 2024: H-index = 42 (WoS), 52 (Google), total citations > 6200

REFEREED PUBLICATIONS

[213] Kristina Brown Nuttall, Christiana Zaugg Suggs, Henry E. Fischer, Mitchell M. Bordelon, Stephen D. Wilson and Benjamin A. Frandsen, “**Quantitative investigation of the short-range magnetic correlations in the candidate quantum spin liquid NaYbO_2 ,**” *Phys. Rev. B Letters* **108**, L140411 (2023).

[212] J.W.E Drewitt, A.C. Barnes, S. Jahn, R.A. Brooker, L. Hennes, D.R. Neuville and H.E. Fischer, “**Iron coordination in liquid FeAl_2O_4 ,**” *Phil. Trans. A* **381**, 20220351-1–13 (2023).

[211] Rita Mendes Da Silva, Anita Zeidler, Henrik Bradtmüller, Hellmut Eckert, Henry E. Fischer, Chris J. Benmore and Philip S. Salmon, “**Structure of amorphous materials in the NASICON system $\text{Na}_{1+x}\text{Ti}_2\text{Si}_x\text{P}_{3-x}\text{O}_{12}$,**” *J. Phys. Condens. Matter* **35**, 274002 (2023).

[210] Oliver Osswald, Marc O. Loeh, Felix M. Badaczewski, Torben Pfaff, Henry E. Fischer, Alexandra Franz, Jens-Uwe Hoffmann, Manfred Reehuis, Peter J. Klar and Bernd M. Smarsly, “**On the highly ordered graphene structure of Non-Graphitic Carbons (NGCs) - a Wide-Angle Neutron Scattering (WANS) study,**” *C (Carbon)* **9**, 27 (2023).

[209] Igor V. Plokhikh, Alexander A. Tsirlin, Dmitry D. Khalyavin, Henry E. Fischer, Andrei V. Shevelkov and Arno Pfitzner, “**Effect of antiferromagnetic layer on the magnetic order in Eu-based 1111 compounds, EuTAsF ($T = \text{Zn, Mn, and Fe}$),**” *Phys. Chem. Chem. Phys.* **25**, 4862 (2023).

[208] Lionel Desgranges, Gianguido Baldinozzi, Henry E. Fischer and Gerard H. Lander, “**Temperature dependent anisotropy in the bond lengths of UO_2 as a result of phonon-induced atomic correlations,**” *J. Phys. Condens. Matter* **35**, 10LT01 (2023), (as a Letter).

[207] N. Qureshi, H.E. Fischer, S.X.M. Riberolles, T.C. Hansen, M. Ciomaga Hatnean and O.A. Petrenko, “**Magnetic short-range order in polycrystalline SrGd_2O_4 and SrNd_2O_4 studied by reverse Monte Carlo simulations and magnetic pair-distribution function analysis,**” *Phys. Rev. B* **106**, 224426 (2022).

[206] Lawrence V.D. Gammond, Rita Mendes Da Silva, Anita Zeidler, Hesameddin Mohammadi, Randall E. Youngman, Bruce G. Aitken, Pierre Florian, Daniel R. Neuville, Louis Hennes, Henry E. Fischer, Alex C. Hannon, Chris J. Benmore and Philip S. Salmon, “**Structure and related properties of amorphous magnesium aluminosilicates,**” *Phys. Rev. Materials* **6**, 125603 (2022).

[205] Jean-Louis Hoslauer, Nicolas Zapp, Henry E. Fischer, Daniel Rudolph, Holger Kohlmann and Thomas Schleid, “**Synthesis and Crystal-Structure Analysis of the K_2NiF_4 -Type Hydride Oxides $\text{LiLnEuH}_{2-x}\text{O}_2$ ($\text{Ln} = \text{La, Ce, Pr, Nd, Sm}$)**

and $\text{LiEu}_2\text{H}_3\text{O}$ by Neutron and X-Ray Diffraction,” *Zeitschrift für anorganische und allgemeine Chemie* **648**, e202200266 (2022).

[204] Hesameddin Mohammadi, Rita Mendes Da Silva, Anita Zeidler, Lawrence Gammond, Florian Gehlhaar, Marcos de Oliveira Jr., Hugo Damasceno, Hellmut Eckert, Randall E. Youngman, Bruce G. Aitken, Henry E. Fischer, Holger Kohlmann, Laurent Cormier, Chris J. Benmore and Philip S. Salmon, “**Structure of diopside, enstatite and magnesium aluminosilicate glasses: A joint approach using neutron and x-ray diffraction and solid-state NMR,**” *J. Chem. Phys.* **157**, 214503 (2022).

[203] Shinya Hosokawa, Jean-François Bélar, Nathalie Boudet, Wolf-Christian Pilgrim, László Pusztai, Satoshi Hiroi, Shinji Kohara, Hidemi Kato, Henry E. Fischer and Anita Zeidler, “**Relationship between atomic structure and excellent glass forming ability in $\text{Pd}_{42.5}\text{Ni}_{7.5}\text{Cu}_{30}\text{P}_{20}$ metallic glass,**” *J. Non-Cryst. Solids* **596**, 121868 (2022).

[202] Anita Zeidler, Philip S. Salmon, Takeshi Usuki, Shinji Kohara, Henry E. Fischer and Mark Wilson, “**Structure of molten NaCl and the decay of the pair-correlations,**” *J. Chem. Phys.* **157**, 094504 (2022).

[201] Zhanar Zhakiyeva, Gabriel J. Cuello, Henry E. Fischer, Daniel T. Bowron, Catherine Dejoie, Valerie Magnin, Sylvain Campillo, Sarah Bureau, Agnieszka Poulain, Rogier Besselink, Stephane Gaboreau, Sylvain Grangeon, Francis Claret, Ian C. Bourg, Alexander E.S. Van Driessche, Alejandro Fernandez-Martinez, “**Structure of water adsorbed on nanocrystalline calcium silicate hydrate determined from neutron scattering and molecular dynamics simulations,**” *J. Phys. Chem. C* **126**, 12820 (2022).

[200] Maksim S. Plekhanov, Sabrina L.J. Thomä, Mirijam Zobel, Gabriel J. Cuello, Henry E. Fischer, Anton A. Raskovalov and Anton V. Kuzmin, “**Correlating proton diffusion in orthorhombic perovskite triple conducting oxides with local and defect structure,**” *Chemistry of Materials* **34**, 4785 (2022).

[199] S. Majumder, M. Tripathi, H.E. Fischer, D.O. de Souza, L. Olivi, A.K. Sinha, R.J. Choudhary, D.M. Phase, “**Microscopic insights of magnetism in $\text{Sm}_2\text{NiMnO}_6$ double perovskite,**” *Phys. Rev. B* **105**, 094425 (2022).

[198] Nicolas Zapp, Henry E. Fischer and Holger Kohlmann, “**From SmOF to $\text{SmH}_{0.78}\text{OF}_{0.22}$: H/F substitution in oxide fluorides as synthesis route to new heteroanionic compounds,**” *Inorganic Chemistry* **60**, 17775 (2021).

[197] Annalisa Polidori, Ruth F. Rowlands, Anita Zeidler, Mathieu Salanne, Henry E. Fischer, Burkhard Annighöfer, Stefan Klotz and Philip S. Salmon, “**Structure and dynamics of aqueous NaCl solutions at high temperatures and pressures,**” *J. Chem. Phys.* **155**, 194506 (2021).

[196] Frederico G. Alabarse, Benoît Baptiste, Mónica Jiménez Ruiz, Benoît Coasne, Julien Haines, Jean-Blaise Brubach, Pascale Roy, Henry E. Fischer, Stefan Klotz and Livia E. Bove, “**Different Water Networks Confined in Unidirectional Hydrophilic Nanopores and Transitions with Temperature,**” *J. Phys. Chem. C* **125**, 14378 (2021).

- [195] Aljosa Hafner, Philipp Gutfreund, Andrew Jones, Johann Da Silva, Andrew Wildes, Henry E. Fischer, Mark Geoghegan and Michele Sferrazza, “**Combined Off-specular and Specular reflectometry: Elucidating Complex Structure of Soft Buried Interfaces,**” *J. Appl. Cryst.* **54**, 924 (2021).
- [194] Joseph A.M. Paddison, Georg Ehlers, Andrew B. Cairns, Jason S. Gardner, Oleg A. Petrenko, Nicholas P. Butch, Dmitry D. Khalyavin, Pascal Manuel, Henry E. Fischer, Haidong Zhou, Andrew L. Goodwin and J. Ross Stewart, “**Suppressed-moment 2-k order in the canonical frustrated antiferromagnet $Gd_2Ti_2O_7$,**” *npj Quantum Materials* **6**, Article number: 99 (2021). (Ref: NPJQUANTMATS-00858R1).
- [193] Zhiling Dun, Marcus Daum, Raju Baral, Henry E. Fischer, Huibo Cao, Yaohua Liu, Matthew B. Stone, Jose A. Rodriguez-Rivera, Eun Sang Choi, Qing Huang, Haidong Zhou, Martin Mourigal and Benjamin Frandsen, “**Neutron scattering investigation of proposed Kosterlitz-Thouless transitions in the triangular-lattice Ising antiferromagnet $TmMgGaO_4$,**” *Phys. Rev. B* **103**, 064424 (2021).
- [192] Shinya Hosokawa, Jean-François Bérrar, Nathalie Boudet, Wolf-Christian Pilgrim, László Pusztai, Satoshi Hiroi, Shinji Kohara, Hidemi Kato, Henry E. Fischer and Anita Zeidler, “**Detailed structural analysis of amorphous $Pd_{40}Cu_{40}P_{20}$: comparison with the metallic glass $Pd_{40}Ni_{40}P_{20}$ from the viewpoint of glass-forming ability,**” *J. Non-Cryst. Solids* **555**, 120536 (2021).
- [191] Yohei Onodera, Shinji Kohara, Philip S. Salmon, Akihiko Hirata, Norimasa Nishiyama, Suguru Kitani, Anita Zeidler, Motoki Shiga, Atsunobu Masuno, Hiroyuki Inoue, Shuta Tahara, Annalisa Polidori, Henry E. Fischer, Tatsuya Mori, Seiji Kojima, Hitoshi Kawaji, Alexander I. Kolesnikov, Matthew B. Stone, Matthew G. Tucker, Marshall T. McDonnell, Alex C. Hannon, Yasuaki Hiraoka, Ipeei Obayashi, Takenobu Nakamura, Jaakko Akola, Yasuhiro Fujii, Koji Ohara, Takashi Taniguchi and Osami Sakata, “**Structure and properties of densified silica glass: Characterizing the order within disorder,**” *NPG Asia Materials* **12**, 85 (2020).
- [190] Mauro Coduri, Andrea Bernasconi, Henry E. Fischer and Lorenzo Malavasi, “**The $Ba_3Mo_{1-x}W_xNbO_{8.5}$ ion conductor: Insights on local Coordination from X-ray and Neutron Total Scattering,**” *J. Mat. Chem. A* **8**, 21227 (2020).
- [189] Evgeny G. Gerasimov, Pavel B. Terentev, Andrey F. Gubkin, Henry E. Fischer, Denis Gorbunov and Nikolay V. Mushnikov, “**Easy-plane magnetic anisotropy in layered $GdMn_2Si_2$ compound with easy-axis magnetocrystalline anisotropy,**” *Journal of Alloys and Compounds* **818**, 152902 (2020).
- [188] Philip E. Mason, Letizia Tavagnacco, Marie-Louise Saboungi, Thomas Hansen, Henry E. Fischer, George W. Neilson, Toshiko Ichiye, and John W. Brady, “**Molecular dynamics and neutron scattering studies of potassium chloride in aqueous solution,**” *J. Phys. Chem. B* **123**, 10807 (2019).
- [187] Chiara Cavallari, Stéphane Rols, Henry E. Fischer, Michela Brunelli, Mattia Gaboardi, Giacomo Magnani, Mauro Riccò and Daniele Pontiroli, “**Neutron scattering study of nickel decorated thermally exfoliated graphite oxide,**” *International Journal of Hydrogen Energy* **44**, 30999 (2019).
- [186] Philip S. Salmon, Gregory S. Moody, Yoshiki Ishii, Keiron J. Pizzey, Annalisa Polidori, Mathieu Salanne, Anita Zeidler, Michela Buscemi, Henry E. Fischer, Craig L. Bull,

Stefan Klotz, Richard Weber, Chris J. Benmore and Simon G. MacLeod, “**Pressure induced structural transformations in amorphous MgSiO_3 and CaSiO_3 ,**” *J. Non-Cryst. Solids X* **3**, 100024 (2019).

[185] Jinyu Hu, Kun Lin, Yili Cao, Rongjin Huang, Takeshi Matsukawa, Toru Ishigaki, Henry E. Fischer, Kenichi Kato, Takashi Honda, Kazutaka Ikeda, Toshiya Otomo, Kenji Ohoyama, Jinxia Deng, Jun Chen and Xianran Xing, “**A case of multifunctional intermetallic compounds: negative thermal expansion coupling with magnetocaloric effect in $(\text{Gd,Ho})(\text{Co,Fe})_2$,**” *Inorg. Chem. Front.* **6**, 3146 (2019).

[184] Shinya Hosokawa, Jean-François Bérar, Nathalie Boudet, Wolf-Christian Pilgrim, László Pusztai, Satoshi Hiroi, Kenji Maruyama, Shinji Kohara, Hidemi Kato, Henry E. Fischer and Anita Zeidler, “**A partial structure investigation on the traditional bulk metallic glass $\text{Pd}_{40}\text{Ni}_{40}\text{P}_{20}$,**” *Phys. Rev. B* **100**, 054204 (2019).

[183] Ruth F. Rowlands, Anita Zeidler, Henry E. Fischer and Philip S. Salmon, “**Structure of the intermediate phase glasses GeSe_3 and GeSe_4 : The deployment of neutron diffraction with isotope substitution,**” *Frontiers in Materials* **6**, 133 (2019).

[182] P. Zalden, F. Quirin, M. Schumacher, R. Mazzarello, J. Siegel, S. Wei, A. Koc, M. Nicoul, M. Trigo, P. Andreasson, H. Enquist, M. Shu, T. Pardini, M. Chollet, D. Zhu, H. Lemke, I. Ronneberger, J. Larsson, A.M. Lindenberg, H.E. Fischer, S. Hau-Riege, D.A. Reis, M. Wuttig and K. Sokolowski-Tinten, “**Femtosecond X-ray diffraction reveals a liquid-liquid phase transition in phase-change materials,**” *Science* **364**, 1062–1067 (2019).

[181] Jinyu Hu, Kun Lin, Yili Cao, Chengyi Yu, Wenjie Li, Rongjin Huang, Henry E. Fischer, Kenichi Kato, Yuzhu Song, Jun Chen, Hongjie Zhang and Xianran Xing, “**Adjustable magnetic phase transition inducing unusual zero thermal expansion in cubic RCO_2 -based intermetallic compounds ($\text{R} = \text{rare earth}$),**” *Inorganic Chemistry* **58**, 5401 (2019).

[180] C. Cavallari, M. Brunelli, S. Radescu, M. Dubois, N. Batische, G.B.M Vaughan, H.E. Fischer and V. Pischedda, “**Structural and electronic changes in graphite fluorides as a function of fluorination rate: an XRS, PDF and DFT study,**” *Carbon* **147**, 1–8 (2019).

[179] M. Paściak, P. Ondrejčokovic, P. Vanek, J. Dražokoupil, G. Steciuk, L. Palatinus, T.R. Welberry, J. Kulda, H.E. Fischer, J. Hlinka and E. Buixaderas, “**Local structure of relaxor ferroelectric $\text{Sr}_x\text{Ba}_{1-x}\text{Nb}_2\text{O}_6$ from pair distribution function analysis,**” *Phys. Rev. B* **99**, 104102 (2019).

[178] M. Tripathi, T. Chatterji, H.E. Fischer, R. Raghunathan, S. Majumder, R.J. Choudhary and D.M. Phase, “**Role of local short-scale correlations in the mechanism of negative magnetization,**” *Phys. Rev. B* **99**, 014422 (2019).

[177] E. Lefrançois, L. Mangin-Thro, E. Lhotel, J. Robert, S. Petit, V. Cathelin, H.E. Fischer, C.V. Colin, F. Damay, J. Ollivier, P. Lejay, L.C. Chapon, V. Simonet and R. Ballou, “**Spin decoupling under a staggered field in the $\text{Gd}_2\text{Ir}_2\text{O}_7$ pyrochlore,**” *Phys. Rev. B* **99**, 060401(R) (2019).

- [176] Pierre Florian, Alexey Novikov, James W.E. Drewitt, Louis Hennes, Vincent Sarou-Kanian, Dominique Massiot, Henry E. Fischer and Daniel R. Neuville, **“Structure and Dynamics of High-Temperature Strontium Aluminosilicate Melts,”** *Phys. Chem. Chem. Phys.* **20**, 27865–27877 (2018).
- [175] T. Charpentier, K. Okhotnikov, A.N. Novikov, L. Hennes, H.E. Fischer, D.R. Neuville and P. Florian, **“Structure of Strontium Aluminosilicate Glasses from Molecular Dynamics Simulations, Neutron Diffraction and Nuclear Magnetic Resonance Studies,”** *J. Phys. Chem. B* **122**, 9567–9583 (2018).
- [174] Yue Ma, Philippe Garcia, Jacques L echelle, Audrey Miard, Lionel Desgranges, Gianguido Baldinozzi, David Simeone and Henry Fischer, **“Characterization of oxygen defect clusters in UO_{2+x} using neutron scattering and PDF analysis,”** *Inorganic Chemistry* **57**, 7064–7076 (2018).
- [173] M. Diaz-Lopez, M. Freire, Y. Joly, C.V. Colin, H.E. Fischer, N. Blanc, V. Pralong and P. Bordet, **“Local structure and lithium diffusion pathways in $\text{Li}_4\text{Mn}_2\text{O}_5$ high capacity cathode probed by total scattering and XANES,”** *Chemistry of Materials* **30**, 3060 (2018).
- [172] L. Desgranges, Yue Ma, Ph. Garcia, G. Baldinozzi, D. Sim eone and H.E. Fischer, **“Understanding local structure versus long-range structure: the case of UO_2 ,”** *Chemistry – A European Journal* **24**, 2085 (2018).
- [171] Tom aš Martinek, Elise Dubou e-Dijon, Št ep an Timr, Philip E. Mason, Katarina Baxov a, Henry E. Fischer, Burkhard Schmidt, Eva Pluhařov a and Pavel Jungwirth, **“Calcium ions in aqueous solutions: Accurate force field description aided by ab initio molecular dynamics and neutron scattering,”** *J. Chem. Phys.* **148**, 222813 (2018).
- [170] Anita Zeidler, Philip S. Salmon, Dean A.J. Whittaker, Andrea Piarristeguy, Annie Pradel, Henry E. Fischer, Chris J. Benmore and Ozgur Gulbiten, **“Structure of semiconducting versus fast-ion conducting glasses in the Ag-Ge-Se system,”** *R. Soc. open sci.* **5**, 171401 (2018).
- [169] Elise Dubou e-Dijon, Philip E. Mason, Henry E. Fischer and Pavel Jungwirth, **“Hydration and ion pairing in aqueous Mg^{2+} and Zn^{2+} solutions: Force field description aided by neutron scattering experiments and ab initio molecular dynamics simulations,”** *J. Phys. Chem. B* **122**, 3296 (2018).
- [168] M. Tripathi, R.J. Choudhary, D.M. Phase, T. Chatterji and H.E. Fischer, **“Evolution of magnetic phases in SmCrO_3 : A neutron diffraction and magnetometric study,”** *Phys. Rev. B* **96**, 174421 (2017).
- [167] Burkhard Annigh ofer, Annalisa Polidori, Anita Zeidler, Henry E. Fischer and Philip S. Salmon, **“High-pressure neutron diffraction apparatus for investigating the structure of liquids under hydrothermal conditions,”** *High Pressure Research* **37**, 529 (2017).
- [166] Elise Dubou e-Dijon, Philip E. Mason, Henry E. Fischer and Pavel Jungwirth, **“Changes in the hydration structure of imidazole upon protonation: Neutron scattering and molecular simulations,”** *J. Chem. Phys.* **146**, 185102 (2017).

- [165] N. Woźnica, L. Hawelek, S. Duber, H.E. Fischer, V. Honkimäki, M. Pawlyta, A. Bulou and A. Burian, **“The atomic scale structure of saccharose-based carbons,”** *Philosophical Magazine* **97**, 1675 (2017).
- [164] James W.E. Drewitt, Adrian C. Barnes, Sandro Jahn, Simon C. Kohn, Michael J. Walter, Alexey N. Novikov, Daniel R. Neuville, Henry E. Fischer and Louis Hennet, **“Structure of liquid tri-calcium aluminate,”** *Phys. Rev. B* **95**, 064203 (2017).
- [163] L. Hawelek, M. Schiavon, J. Szade, P. Włodarczyk, K. Jurkiewicz, H.E. Fischer, A. Kolano-Burian and A. Burian, **“The atomic scale structure of dahlia-like single wall carbon nanohorns produced by direct vaporization of graphite,”** *Diamond and Related Materials* **72**, 26–31 (2017).
- [162] L. Desgranges, Yue Ma, Ph. Garcia, G. Baldinozzi, D. Siméone and H.E. Fischer, **“What is the actual local crystalline structure of uranium dioxide, UO_2 ? A new perspective for the most used nuclear fuel,”** *Inorganic Chemistry* **56**, 321–326 (2017).
- [161] K. Jurkiewicz, S. Duber, H.E. Fischer and A. Burian, **“Modeling of glass-like carbon structure and its experimental verification by neutron and x-ray diffraction,”** *J. Appl. Cryst.* **50**, 36–48 (2017).
- [160] Johannes Wagner, Volker Haigis, Marlène Leydier, Aleksei Bytchkov, Viviana Cristiglio, Henry E. Fischer, Najim Sadiki, Didier Zanghi, Louis Hennet and Sandro Jahn, **“The structure of Y- and La-bearing aluminosilicate glasses and melts: a combined molecular dynamics and diffraction study,”** *Chemical Geology* **461**, 23–33 (2017).
- [159] Louis Hennet, James W.E. Drewitt, Daniel R. Neuville, Viviana Cristiglio, Jad Kozaily, Séverine Brassamin, Didier Zanghi and Henry E. Fischer, **“Neutron diffraction of calcium aluminosilicate glasses and melts,”** *J. Non-Cryst. Solids* **451**, 89–93 (2016).
- [158] P.S. Salmon, A. Zeidler and H.E. Fischer, **“Optimising the counting times for sample-in-container scattering experiments,”** *J. Appl. Cryst.* **49**, 2249 (2016).
- [157] L. Hawelek, P. Włodarczyk, A. Hudecki, M. Lis, P. Zackiewicz, K. Jurkiewicz, J. Szade, J. Kubacki, K. Balin, H.E. Fischer, A. Kolano-Burian and A. Burian, **“The atomic scale structure of glass-like carbon obtained from fullerene extract via spark plasma sintering,”** *Carbon* **80**, 172–179 (2016).
- [156] L. Desgranges, G. Baldinozzi, D. Siméone and H.E. Fischer, **“Structural changes in the local environment of uranium atoms in the three phases of U_4O_9 ,”** *Inorganic Chemistry* **55**, 7485–7491 (2016).
- [155] Assil Bouzid, Keiron J. Pizzey, Anita Zeidler, Guido Ori, Mauro Boero, Carlo Masobrio, Stefan Klotz, Henry E. Fischer, Craig L. Bull and Philip S. Salmon, **“Pressure-induced structural changes in the network-forming isostatic glass GeSe_4 : An investigation by neutron diffraction and first-principles molecular dynamics,”** *Phys. Rev. B* **93**, 014202 (2016).
- [154] Maoyuan Liu, Aurélie Jacob, Clemens Schmetterer, Patrick J. Masset, Louis Hennet, Henry E. Fischer, Jad Kozaily, Sandro Jahn and Angus Gray-Weale, **“From**

atomic structure to excess entropy: A neutron diffraction and density functional theory study of CaO-Al₂O₃-SiO₂ melts,” *J. Phys. Condens. Matter* **28**, 135102 (2016).

[153] Anita Zeidler, Philip Stephen Salmon, Andrea Piarristeguy, Annie Pradel, Henry Edward Fischer, “**Structure of glassy Ag-Ge-Se by neutron diffraction with isotope substitution,**” *Zeitschrift für physikalische Chemie* **230**, 417–432 (2016).

[152] Natalia Woznica, Lukasz Hawelek, Henry E. Fischer, Ivan Bobrinetskiy and Andrzej Burian, “**The atomic scale structure of graphene powder studied by neutron and X-ray diffraction,**” *J. Appl. Cryst.* **48**, 1429–1436 (2015).

[151] Jana Hladílková, Henry E. Fischer, Pavel Jungwirth and Philip E. Mason, “**Hydration of hydroxyl and amino groups examined by molecular dynamics and neutron scattering,**” *J. Phys. Chem. B* **119**, 6357–6365 (2015).

[150] Adrian C. Wright, Roger N. Sinclair, Cora E. Stone, Joanna L. Shaw, Steven A. Feller, Richard B. Williams and Henry E. Fischer, “**A neutron diffraction study of six M₂O·M'₂O·5B₂O₃ mixed-modifier di-pentaborate glasses,**” *Phys. Chem. Glasses: Eur. J. Glass Sci. Technol. B* **56**, 85–97 (2015).

[149] Anita Zeidler, Prae Chirawatkul, Philip S. Salmon, Takeshi Usuki, Shinji Kohara, Henry E. Fischer and W. Spencer Howells, “**Structure of the network glass-former ZnCl₂: From the boiling point to the glass,**” *J. Non-Cryst. Solids* **405**, 235–245 (2015).

[148] Pinit Kidkhunthod, Lawrie B. Skinner, Adrian C. Barnes, Wantana Klysubun and Henry E. Fischer, “**The structure of Ba-Ti-Al-O glasses produced by aerodynamic levitation and laser heating,**” *Phys. Rev. B* **90**, 094206 (2014).

[147] Anita Zeidler, Kamil Wezka, Ruth F. Rowlands, Dean A.J. Whittaker, Philip S. Salmon, Annalisa Polidori, James W.E. Drewitt, Stefan Klotz, Henry E. Fischer, Martin C. Wilding, Craig L. Bull, Matthew G. Tucker and Mark Wilson, “**High-Pressure Transformation of SiO₂ Glass from a Tetrahedral to an Octahedral Network: A Joint Approach Using Neutron Diffraction and Molecular Dynamics,**” *Phys. Rev. Lett.* **113**, 135501 (2014).

[146] Adrian C. Wright, Stuart J. Clarke, Christopher K. Howard, Paul A. Bingham, Susan D. Forder, Diane Holland, David Martlew and Henry E. Fischer, “**The environment of Fe²⁺/Fe³⁺ cations in a soda-lime-silica glass,**” *Phys. Chem. Glasses: Eur. J. Glass Sci. Technol. B* **55**, 243–252 (2014).

[145] Kamil Wezka, Assil Bouzid, Keiron J. Pizzey, Philip S. Salmon, Anita Zeidler, Stefan Klotz, Henry E. Fischer, Craig L. Bull, Matthew G. Tucker, Mauro Boero, Sébastien Le Roux, Christine Tugène and Carlo Massobrio, “**Density-driven defect-mediated network collapse of GeSe₂ glass,**” *Phys. Rev. B* **90**, 054206 (2014).

[144] B. Farbos, P. Weisbecker, H.E. Fischer, J-P. Da Costa, M. Lalanne, G. Chollon, C. Germain, G.L. Vignoles and J-M. Leyssale, “**Nanoscale structure and texture of highly anisotropic pyrocarbons revisited with transmission electron microscopy, image processing, neutron diffraction and atomistic modeling,**” *Carbon* **80**, 472–489 (2014).

- [143] Anita Zeidler, Kamil Wezka, Dean A.J. Whittaker, Philip S. Salmon, Axelle Baroni, Stefan Klotz, Henry E. Fischer, Martin C. Wilding, Craig L. Bull, Matthew G. Tucker, Mathieu Salanne, Guillaume Ferlat, and Matthieu Micoulaut, “**Density-driven structural transformations in B₂O₃ glass,**” *Phys. Rev. B* **90**, 024206 (2014).
- [142] P. Zalden, K.S. Siegert, S. Rols, H.E. Fischer, F. Schlich, T. Hu and M. Wuttig, “**Specific heat of (GeTe)_x(Sb₂Te₃)_{1-x} (GST) phase-change materials: The impact of disorder and anharmonicity,**” *Chemistry of Materials* **26**, 2307–2312 (2014).
- [141] Eva Pluhařová, Henry E. Fischer, Philip E. Mason and Pavel Jungwirth, “**Hydration of the chloride ion in concentrated aqueous solutions using neutron scattering and molecular dynamics,**” *Molec. Phys.* **112**, 1230 (2014).
- [140] Adrian C. Wright, Roger N. Sinclair, Cora E. Stone, Joanna L. Shaw, Steven A. Feller, Richard B. Williams, Henry E. Fischer and Natalia M. Vedishcheva, “**A neutron diffraction study of sodium, rubidium and caesium borate glasses,**” *Phys. Chem. Glasses: Eur. J. Glass Sci. Technol. B* **55**, 74–84 (2014).
- [139] Hiroshi Nozaki, Martin Månsson, Bertrand Roessli, Vladimir Pomjakushin, Kazuya Kamazawa, Yutaka Ikedo, Henry E. Fischer, Thomas C. Hansen, Hiroyuki Yoshida, Zenji Hiroi and Jun Sugiyama, “**Magnetic structure of the metallic triangular antiferromagnet Ag₂NiO₂,**” *J. Phys. Condens. Matter* **25**, 286005 (2013).
- [138] Camille Pallier, Jean-Marc Leyssale, Lionel A. Truffandier, Anh Thy Bui, Patrick Weisbecker, Christel Gervais, Henry E. Fischer, Fausto Sirotti, Francis Teyssandier and Georges Chollon, “**Structure of an amorphous boron carbide film: an experimental and computational approach,**” *Chem. Mater.* **25**, 2618 (2013).
- [137] Lawrie B. Skinner, Adrian C. Barnes, Philip S. Salmon, Louis Hennes, Henry E. Fischer, Chris J. Benmore, Shinji Kohara, J.K. Richard Weber, Alexei Bytchkov, Martin C. Wilding, John B. Parise, Thomas O. Farmer, Irina Pozdnyakova, Sonia K. Tumber and Koji Ohara, “**Joint diffraction and modeling approach to the structure of liquid alumina,**” *Phys. Rev. B* **87**, 024201 (2013).
- [136] James W.E. Drewitt, Louis Hennes, Anita Zeidler, Sandro Jahn, Philip S. Salmon, Daniel R. Neuville and Henry E. Fischer, “**Structural transformations on vitrification in the fragile glass-forming system CaAl₂O₄,**” *Phys. Rev. Lett.* **109**, 235501 (2012).
- [135] N. Jakse, M. Bouhadja, J. Kozaily, J.W.E. Drewitt, L. Hennes, D.R. Neuville, H.E. Fischer, V. Cristiglio and A. Pasturel, “**Interplay between non-bridging oxygen, triclusters, and fivefold Al coordination in low silica content calcium aluminosilicate melts,**” *Appl. Phys. Lett.* **101**, 201903 (2012).
- [134] Henry E. Fischer, J. Mike Simonson, Jörg C. Neufeind, Hartmut Lemmel, Helmut Rauch, Anita Zeidler and Philip S. Salmon, “**The bound coherent neutron scattering lengths of the oxygen isotopes,**” *J. Phys. Condens. Matter* **24**, 505105 (2012).
- [133] Kamil Wezka, Philip S. Salmon, Anita Zeidler, Dean A.J. Whittaker, James W.E. Drewitt, Stefan Klotz, Henry E. Fischer and Dario Marrocchelli, “**Mechanisms**

of network collapse in GeO_2 glass: high-pressure neutron diffraction with isotope substitution as arbitrator of competing models,” *J. Phys. Condens. Matter* **24**, 502101 (2012).

[132] Anita Zeidler, Philip S. Salmon, Henry E. Fischer, Jörg C. Neuefeind, J. Mike Simonson, Hartmut Lemmel, Helmut Rauch and Thomas E. Markland, “**Zeidler et al. Reply**,” *Phys. Rev. Lett.* **108**, 259604 (2012).

[131] Adrian C. Wright, Roger N. Sinclair, Cora E. Stone, Joanna L. Shaw, Steven A. Feller, T.J. Kiczinski, Richard B. Williams, Heidi A. Berger, Henry E. Fischer and Natalia M. Vedishcheva, “**A Neutron Diffraction Study of $2\text{M}_2\text{O}\cdot 5\text{B}_2\text{O}_3$ ($\text{M} = \text{Li, Na, K, Rb, Cs \& Ag}$) and $2\text{MO}\cdot 5\text{B}_2\text{O}_3$ ($\text{M} = \text{Ca \& Ba}$) Glasses**,” *Phys. Chem. Glasses: Eur. J. Glass Sci. Technol. B* **53**, 191–204 (2012).

[130] Anita Zeidler, Philip S. Salmon, Henry E. Fischer, Jörg C. Neuefeind, J. Mike Simonson and Thomas E. Markland, “**Isotope effects in water as investigated by neutron diffraction and path integral molecular dynamics**,” *J. Phys. Condens. Matter* **24**, 284126 (2012).

[129] Adrian C. Wright, Roger N. Sinclair, Joanna L. Shaw, Richard Haworth, G. Kanishka Marasinghe, Delbert E. Day, Paul A. Bingham, Susan D. Forder, Gabriel J. Cuello, Henry E. Fischer and Jon W. Taylor, “**The atomic and magnetic structure and dynamics of iron phosphate glasses**,” *Phys. Chem. Glasses: Eur. J. Glass Sci. Technol. B* **53**, 227–244 (2012).

[128] Lawrie B. Skinner, Adrian C. Barnes, Philip S. Salmon, Henry E. Fischer, James W.E. Drewitt and Veijo Honkimäki, “**Structure and triclustering in Ba-Al-O glass**,” *Phys. Rev. B* **85**, 064201 (2012).

[127] Mauro Coduri, Michela Brunelli, Marco Scavini, Mattia Allieta, Paolo Masala, Lucia Capogna, Henry E. Fischer and Claudio Ferrero, “**Rare Earth doped ceria: a combined x-ray and neutron pair distribution function study**,” *Z. Kristallogr.* **227**, 272–279 (2012).

[126] Patrick Weisbecker, Jean-Marc Leyssale, Henry E. Fischer, Veijo Honkimäki, Maëva Lalanne and Gérard L. Vignoles, “**Microstructure of pyrocarbons from pair distribution function analysis using neutron diffraction**,” *Carbon* **50**, 1563–1573 (2012).

[125] L. Hennes, I. Pozdnyakova, A. Bytchkov, J. Drewitt, J. Kozaily, M. Leydier, S. Brassamin, D. Zanghi, H.E. Fischer, G.N. Greaves and D.L. Price, “**Application of time resolved x-ray diffraction to study the solidification of glass-former melts**,” *High Temp. High Press.* **40**, 263–270 (2011).

[124] Anita Zeidler, Philip S. Salmon, Henry E. Fischer, Jörg C. Neuefeind, J. Mike Simonson, Hartmut Lemmel, Helmut Rauch and Thomas E. Markland, “**Oxygen as a site specific probe of the structure of water and oxide materials**,” *Phys. Rev. Lett.* **107**, 145501 (2011).

[123] L. Hennes, V. Cristiglio, J. Kozaily, I. Pozdnyakova, H.E. Fischer, A. Bytchkov, J.W.E. Drewitt, M. Leydier, D. Thiaudière, S. Gruner, S. Brassamin, D. Zanghi,

- G.J. Cuello, M. Koza, S. Magazù, G.N. Greaves and D.L. Price, “**Aerodynamic levitation and laser heating: Applications at synchrotron and neutron sources,**” *European Physical Journal: Special Topics* **196**, 151–165 (2011).
- [122] L. Desgranges, G. Baldinozzi, D. Siméone and H.E. Fischer, “**Refinement of the α - U_4O_9 crystalline structure: A new insight into the $\text{U}_4\text{O}_9 \rightarrow \text{U}_3\text{O}_8$ transformation,**” *Inorganic Chemistry* **50**, 6146–6151 (2011).
- [121] Kamil Wezka, Anita Zeidler, Philip S. Salmon, Pinit Kidkhunthod, Adrian C. Barnes and Henry E. Fischer, “**Structure of praseodymium and neodymium gallate glasses,**” *J. Non-Cryst. Solids* **357**, 2511–2515 (2011).
- [120] Jad Kozaily, Louis Hennet, Henry E. Fischer, Marek Koza, Séverine Brassamin, Salvatore Magazù and Florian Kargl, “**Time-Of-Flight neutron spectroscopy: a new application of aerodynamic sample levitation,**” *Phys. Status Solidi C* **8**, 3155–3158 (2011).
- [119] A.C. Barnes, L.B. Skinner, P.S. Salmon, A. Bytchkov, I. Pozdnyakova, T.O. Farmer and H.E. Fischer, “**Barnes et al. Reply,**” *Phys. Rev. Lett.* **106**, 119602 (2011).
- [118] James W.E. Drewitt, Sandro Jahn, Viviana Cristiglio, Aleksei Bytchkov, Marlène Leydier, Séverine Brassamin, Henry E. Fischer and Louis Hennet, “**The structure of liquid calcium aluminates as investigated by neutron and high-energy x-ray diffraction in combination with molecular dynamics simulation methods,**” *J. Phys. Condens. Matter* **23**, 155101 (2011).
- [117] Prae Chirawatkul, Anita Zeidler, Philip S. Salmon, Shin’ichi Takeda, Yukinobu Kawakita, Takeshi Usuki and Henry E. Fischer, “**Structure of eutectic liquids in the Au-Si, Au-Ge and Ag-Ge binary systems by neutron diffraction,**” *Phys. Rev. B* **83**, 014203 (2011).
- [116] V. Cristiglio, G.J. Cuello, L. Hennet, I. Pozdnyakova, M. Leydier, J. Kozaily, H.E. Fischer, M.R. Johnson and D.L. Price, “**Neutron diffraction study of molten calcium aluminates,**” *J. Non-Cryst. Solids* **356**, 2492–2496 (2010).
- [115] Philip E. Mason, Jan Heyda, Henry E. Fischer, Pavel Jungwirth, “**Specific interactions of ammonium functionalities in amino acids with aqueous fluoride and iodide,**” *J. Phys. Chem. B* **43**, 13853–13860 (2010).
- [114] Anita Zeidler, Philip S. Salmon, Richard A. Martin, Takeshi Usuki, Philip E. Mason, Gabriel J. Cuello, Shinji Kohara, and Henry E. Fischer, “**Structure of liquid and glassy ZnCl_2 ,**” *Phys. Rev. B* **82**, 104208 (2010).
- [113] James W.E. Drewitt, Philip S. Salmon, Adrian C. Barnes, Stefan Klotz, Henry E. Fischer and Wilson A. Crichton, “**Structure of GeO_2 glass at pressures up to 8.6 GPa,**” *Phys. Rev. B* **81**, 014202 (2010).
- [112] Adrian C. Barnes, Lawrie B. Skinner, Philip S. Salmon, Alexei Bytchkov, Irina Posdnyakova, Thomas O. Farmer and Henry E. Fischer, “**The liquid-liquid phase transition in supercooled yttria-alumina,**” *Phys. Rev. Lett.* **103**, 225702 (2009).
- [111] Anita Zeidler, James W.E. Drewitt, Philip S. Salmon, Adrian C. Barnes, Wilson A. Crichton, Stefan Klotz, Henry E. Fischer, Chris J. Benmore, Silvia Ramos and

Alex C. Hannon, “**Establishing the structure of GeS₂ at high pressures and temperatures: a combined approach using x-ray and neutron diffraction,**” *J. Phys. Condens. Matter* **21**, 474217 (2009).

[110] J. Neufeind, H.E. Fischer, J.M. Simonson, N. Idrissi, A. Schöps and V. Honkimäki, “**The structure of liquid carbon dioxide and carbon disulfide,**” *J. Chem. Phys.* **130**, 174503 (2009).

[109] V. Cristiglio, L. Hennet, G.J. Cuello, I. Pozdnyakova, M.R. Johnson, H.E. Fischer, D. Zanghi and D.L. Price, “**Local structure of liquid CaAl₂O₄ from ab-initio molecular dynamics simulations,**” *J. Non-Cryst. Solids* **354**, 5337–5339 (2008).

[108] H.E. Fischer, J. Neufeind, J.M. Simonson, R. Loidl and H. Rauch, “**New measurements of the coherent and incoherent neutron scattering lengths of ¹³C,**” *J. Phys. Condens. Matter* **20**, 045221 (2008).

[107] T.C. Hansen, P.F. Henry, H.E. Fischer, J. Torregrossa and P. Convert, “**The D20 instrument at the ILL: A versatile high-intensity 2-axis neutron diffractometer,**” *Meas. Sci. Technol.* **19**, 034001 (2008).

[106] V. Cristiglio, L. Hennet, G.J. Cuello, I. Pozdnyakova, M.R. Johnson, H.E. Fischer, D. Zanghi, Q. Vu Van, M.C. Wilding, G.N. Greaves and D.L. Price, “**Structure of molten yttrium aluminates: a neutron diffraction study,**” *J. Phys. Condens. Matter* **19**, 415105 (2007).

[105] H.E. Fischer, L. Hennet, V. Cristiglio, D. Zanghi, I. Pozdnyakova, R.P. May, D.L. Price and S. Wood “**Magnetic critical scattering in solid Co₈₀Pd₂₀,**” *J. Phys. Condens. Matter* **19**, 415106 (2007).

[104] L. Hennet, S. Krishnan, I. Pozdnyakova, V. Cristiglio, G.J. Cuello, H.E. Fischer, A. Bytchkov, F. Albergamo, D. Zanghi, J-F. Brun, S. Brassamin, M-L. Saboungi and D.L. Price, “**Structure and dynamics of levitated liquid materials,**” *Pure and Appl. Chem.* **79**, 1643–1652 (2007).

[103] Jacqueline M. Cole, Adrian C. Wright, Robert J. Newport, Roger N. Sinclair, Henry E. Fischer, Gabriel J. Cuello and Richard A. Martin, “**The structure of the rare-earth phosphate glass, (Sm₂O₃)_{0.205}(P₂O₅)_{0.795}, studied by anomalous dispersion neutron diffraction,**” *J. Phys. Condens. Matter* **19**, 056002 (2007).

[102] Adrian C. Wright, Jacqueline M. Cole, Robert J. Newport, Cora E. Fisher, Stuart J. Clarke, Roger N. Sinclair, Henry E. Fischer and Gabriel J. Cuello, “**The neutron diffraction anomalous dispersion technique and its application to vitreous Sm₂O₃ · 4P₂O₅,**” *Nucl. Instrum. Meth. Phys. Res. A* **571**, 622–635 (2007).

[101] V. Cristiglio, L. Hennet, G.J. Cuello, M.R. Johnson, A. Fernández-Martínez, H.E. Fischer, I. Pozdnyakova, D. Zanghi, S. Brassamin, J.F. Brun and D.L. Price, “**Ab-initio molecular dynamics simulations of the structure of liquid aluminates,**” *J. Non-Cryst. Solids* **353**, 1789–1792 (2007).

[100] L. Hennet, I. Pozdnyakova, V. Cristiglio, S. Krishnan, A. Bytchkov, F. Albergamo, G. Cuello, J-F. Brun, H.E. Fischer, D. Zanghi, S. Brassamin, M-L. Saboungi and D.L. Price, “**Structure and dynamics of levitated liquid aluminates,**” *J. Non-Cryst. Solids* **353**, 1705–1712 (2007).

- [99] V. Cristiglio, L. Hennet, G.J. Cuello, I. Pozdnyakova, A. Bytchkov, P. Palleau, H.E. Fischer, D. Zanghi, M-L. Saboungi and D.L. Price, **“Structural study of levitated liquid Y_2O_3 using neutron scattering,”** *J. Non-Cryst. Solids* **353**, 993–995 (2007).
- [98] Louis Hennet, Irina Pozdnyakova, Aleksei Bytchkov, Viviana Cristiglio, Pierre Palleau, Henry Fischer, Gabriel Cuello, Mark Johnson, Philippe Melin, Didier Zanghi, Séverine Brassamin, Jean-François Brun, David Price, Marie-Louise Saboungi, **“Levitation apparatus for neutron diffraction investigations on high-temperature liquids,”** *Rev. Sci. Instrum* **77**, 053903 (2006).
- [97] H.E. Fischer, A.C. Barnes and P.S. Salmon, **“Neutron and x-ray diffraction studies of liquids and glasses,”** *Rep. Prog. Phys.* **69**, 233–299 (2006). (review paper: 67 pages, ~400 refs.).
- [96] Richard A. Martin, Philip S. Salmon, Henry E. Fischer and Gabriel J. Cuello, **“Structure of rare-earth phosphate glasses by neutron diffraction,”** *J. Non-Cryst. Solids* **345&346**, 208–212 (2004).
- [95] Imre Bakó, G. Pálinkás, J.C. Dore, H. Fischer and P. Jóvári, **“Wide and low angle neutron scattering of water pyridine mixtures,”** *Chem. Phys. Lett.* **388**, 468–472 (2004).
- [94] Philip S. Salmon, Ingrid Petri, Paul H.K. de Jong, Peter Verkerk, Henry E. Fischer and W. Spencer Howells, **“Structure of liquid lithium,”** *J. Phys. Condens. Matter* **16**, 195–222 (2004).
- [93] Richard A. Martin, Philip S. Salmon, Henry E. Fischer and Gabriel J. Cuello, **“Structure of dysprosium and holmium phosphate glasses by the method of isomorphic substitution in neutron diffraction,”** *J. Phys. Condens. Matter* **15**, 8235–8252 (2003).
- [92] Till Pfeleiderer, Isabella Waldner, Helmut Bertagnolli, Klaus Tödheide and Henry E. Fischer, **“High temperature – high pressure apparatus for neutron diffraction on molten salts: Structure factors of molten zinc chloride,”** *Phys. Chem. Chem. Phys.* **5**, 5313–5318 (2003).
- [91] Richard A. Martin, Philip S. Salmon, Chris J. Benmore, Henry E. Fischer and Gabriel J. Cuello, **“Structure of lanthanum and cerium phosphate glasses by the method of isomorphic substitution in neutron diffraction,”** *Phys. Rev. B* **68**, 054203 (2003).
- [90] Richard A. Martin, Philip S. Salmon, Henry E. Fischer and Gabriel J. Cuello, **“Identification of the relative distribution of rare-earth ions in phosphate glasses,”** *Phys. Rev. Lett.* **90**, 185501 (2003).
- [89] M.M. Koza, H. Schober, H.E. Fischer, T. Hansen and F. Fujara, **“Kinetics of the high- to low-density amorphous water transition,”** *J. Phys. Condens. Matter* **15**, 321–332 (2003).
- [88] E. Guarini, F. Barocchi, M. Celli, H.E. Fischer, R. Magli and M. Zoppi, **“Neutron diffraction study of quantum effects on the pair correlation function of low-density 4He ,”** *Appl. Phys. A* **74**, S418–S420 (2002).

- [87] H.E. Fischer, G.J. Cuello, P. Palleau, D. Feltin, A.C. Barnes, Y.S. Badyal and J.M. Simonson, **“D4c: A very high precision diffractometer for disordered materials,”** *Appl. Phys. A* **74**, S160–S162 (2002).
- [86] M. Jiménez-Ruiz, A. Criado, F.J. Bermejo, G.J. Cuello, F.R. Trouw, R. Fernández-Perea, H. Löwen, C. Cabrillo and H.E. Fischer, **“Glassy dynamics of a kinetically constrained model: a direct comparison with experiment,”** *J. Phys. Condens. Matter* **14**, 1509 (2002).
- [85] A. de Bernabé, C. Prieto, D. Caceres, I. Vergara, A.G. Every and H.E. Fischer, **“Anomalous elastic properties of Si/Ge superlattices: The role of interfaces,”** *Physica Status Solidi A* **188**, 1023 (2001).
- [84] Cédric Pitteloud, D. Hugh Powell and H.E. Fischer, **“The hydration structure of the Ni²⁺ ion intercalated in montmorillonite clay: a neutron diffraction with isotopic substitution study,”** *Phys. Chem. Chem. Phys.* **3**, 5567–5574 (2001).
- [83] Till Pfeleiderer, Helmut Bertagnolli, Klaus Tödheide and Henry E. Fischer, **“The structure of a fluid mixture of deuterated ethane and deuterated methane by high pressure neutron diffraction experiments,”** *J. Chem. Phys.* **115**, 5561 (2001).
- [82] J.F. Clergeau, P. Convert, D. Feltin, H.E. Fischer, B. Guerard, T. Hansen, G. Manzin, A. Oed and P. Palleau, **“Operation of sealed microstrip gas chambers at the ILL,”** *Nucl. Instr. Methods A* **471**, 60 (2001).
- [81] D.M. Sullivan, G.W. Neilson and H.E. Fischer, **“Hydrophobic hydration of argon at high temperatures,”** *J. Chem. Phys.* **115**, 339 (2001).
- [80] P. Buchanan, A.C. Barnes, K.R. Whittle, M.A. Hamilton, A.N. Fitch and H.E. Fischer, **“A determination of the structure of liquid Ga₂Te₃ using combined X-ray diffraction and neutron diffraction with isotopic substitution,”** *Molec. Phys.* **99**, 767 (2001).
- [79] H. Kohlmann, H.E. Fischer and K. Yvon, **“Europium palladium hydrides,”** *Inorganic Chemistry* **40**, 2608 (2001).
- [78] P. Andonov, H.E. Fischer, P. Palleau and S. Kimura, **“Structural study of liquid lithium niobate by neutron diffraction: role of the Li atom in the clustering near solidification,”** *Z. Naturforsch. A* **56**, 395 (2001).
- [77] Goumin Mao, Marie-Louise Saboungi, David L. Price, Yaspal S. Badyal and Henry E. Fischer, **“Lithium environment in PEO-LiClO₄ polymer electrolyte,”** *Europhys. Lett.* **54**, 347 (2001).
- [76] M.A. Hamilton, A.C. Barnes, W.S. Howells and H.E. Fischer, **“Ag⁺ dynamics in the superionic and liquid phases of Ag₂Se and Ag₂Te by coherent quasi-elastic neutron scattering,”** *J. Phys. Condens. Matter* **13**, 2425 (2001).
- [75] A. Michel, V. Pierron-Bohnes, J.P. Jay, P. Panissod, S. Lefebvre, M. Bessière, H.E. Fischer and G. van Tendeloo, **“Stabilisation of fcc cobalt layers by 0.4 nm thick manganese layers in Co/Mn superlattices,”** *Eur. Phys. J. B* **19**, 225 (2001).
- [74] Alfredo Pasquarello, Ingrid Petri, Philip S. Salmon, Olivier Parisel, Roberto Car, Éva Tóth, D. Hugh Powell, Henry E. Fischer, Lothar Helm and André E. Merbach,

“First solvation shell of the Cu(II) aqua ion: evidence for five-fold coordination,” *Science* **291**, 856 (2001).

[73] Till Pfeleiderer, Isabella Waldner, Helmut Bertagnolli, Klaus Tödheide and Henry E. Fischer, **“The structure of liquid and supercritical deuterium fluoride from neutron scattering using high pressure techniques,”** *J. Chem. Phys.* **113**, 3690 (2000).

[72] J. Neufeind, H.E. Fischer and W. Schröer, **“The structure of fluid trifluoromethane and methylfluoride,”** *J. Phys. Condens. Matter* **12**, 8765 (2000).

[71] A.C. Barnes, M.A. Hamilton, U. Beck and H.E. Fischer, **“A determination of the structure of liquid Ag_2Te using neutron diffraction and isotopic substitution and its comparison to Ag_2Se ,”** *J. Phys. Condens. Matter* **12**, 7311 (2000).

[70] D.M. Sullivan, G.W. Neilson, H.E. Fischer and A.R. Rennie, **“Small angle neutron scattering from D_2O in the critical region,”** *J. Phys. Condens. Matter* **12**, 3531 (2000).

[69] M. Rotter, A. Lindbaum, E. Gratz, G. Hilscher, H. Sassik, H.E. Fischer, M.T. Fernandez-Diaz, R. Arons and Erwin Seidl, **“The magnetic structure of GdCu_2 ,”** *J. Magn. Magn. Mater.* **214**, 281 (2000).

[68] J. Neufeind, H.E. Fischer and W. Schröer, **“EPMC versus RMC modelling: the structure of supercritical HCF_3 ,”** *Physica B* **276–278**, 481 (2000).

[67] U. Bafle, F. Barocchi, F. Cilloco, K. Hochgesand, R. Winter and H.E. Fischer, **“The microscopic structure of liquid mercury from neutron and X-ray diffraction,”** *Physica B* **276–278**, 452 (2000).

[66] H.E. Fischer, P. Palleau and D. Feltin, **“The D4c neutron diffractometer for liquids and glasses,”** *Physica B* **276–278**, 93 (2000).

[65] A. Criado, M. Jiménez-Ruiz, C. Cabrillo, F.J. Bermejo, R. Fernández-Perea, H.E. Fischer and F.R. Trouw, **“Rotational dynamics in the plastic-crystal phase of ethanol: Relevance for understanding the dynamics during the structural glass transition,”** *Phys. Rev. B* **61**, 12082 (2000).

[64] Jonathan C. Wasse, Shusaku Hayama, Neal T. Skipper and Henry E. Fischer, **“Structure of a metallic solution of lithium in ammonia,”** *Phys. Rev. B* **61**, 11993 (2000).

[63] Ingrid Petri, Philip S. Salmon and Henry E. Fischer, **“Defects in a disordered world: the structure of glassy GeSe_2 ,”** *Phys. Rev. Lett.* **84**, 2413 (2000).

[62] A. Criado, M. Jiménez-Ruiz, C. Cabrillo, F.J. Bermejo, M. Grimsditch, H.E. Fischer, S.M. Bennington and R.S. Eccleston, **“Role of low-frequency vibrations on sound propagation in glasses at intermediate temperature,”** *Phys. Rev. B* **61**, 8778 (2000).

[61] F.J. Bermejo, M. Jiménez-Ruiz, A. Criado, G.J. Cuello, C. Cabrillo, F.R. Trouw, R. Fernández-Perea, H. Löwen and H.E. Fischer, **“Rotational-freezing in plastic crystals: a model system for investigating the dynamics of the glass transition,”** *J. Phys. Condens. Matter* **12**, A391 (2000).

- [60] T. Weitkamp, J. Neufeind, H.E. Fischer and M.D. Zeidler, “**Hydrogen bonding in liquid methanol at ambient conditions and at high pressures,**” *Molec. Phys.* **98**, 125 (2000).
- [59] Ingrid Petri, Philip S. Salmon and Henry E. Fischer, “**Structure of the liquid semiconductor GeSe,**” *J. Phys. Condens. Matter* **11**, 7051 (1999).
- [58] M. Jiménez-Ruiz, A. Criado, F.J. Bermejo, G.J. Cuello, F.R. Trouw, R. Fernández-Perea, H. Löwen, C. Cabrillo and H.E. Fischer, “**Purely dynamical signature of the orientational glass transition,**” *Phys. Rev. Lett.* **83**, 2757 (1999).
- [57] Till Pfeleiderer, Isabella Waldner, Helmut Bertagnolli, Klaus Tödheide, Barbara Kirchner, Hanspeter Huber and Henry E. Fischer, “**The structure of fluid argon from high-pressure neutron diffraction and ab initio molecular dynamics simulations,**” *J. Chem. Phys.* **111**, 2641 (1999).
- [56] Andrzej Burian, John C. Dore, Henry E. Fischer, Jeremy Sloan and Aneta Szczygielska, “**Structural studies of carbon nanotubes by wide-angle neutron scattering,**” *SPIE (the International Society for Optical Engineering)* **3725**, 107 (1999).
- [55] H.E. Fischer, F.J. Bermejo, G.J. Cuello, M.T. Fernández-Díaz, J. Dawidowski, M. Jiménez-Ruiz and H. Schober, “**An experimental separation of anharmonic and disorder effects on glassy dynamics,**” *Europhys. Lett.* **46**, 643 (1999).
- [54] Imre Bakó, Gábor Pálinkás, John C. Dore and Henry E. Fischer, “**Structural studies of a water/dioxane mixture by neutron diffraction with hydrogen/deuterium substitution,**” *Chem. Phys. Lett.* **303**, 315 (1999).
- [53] Ingrid Petri, Philip S. Salmon and Henry E. Fischer, “**Structure of molten GeSe by neutron diffraction: the Ge coordination environment,**” *J. Non-Cryst. Solids.* **250-252**, 405 (1999).
- [52] G. Prigent, R. Bellissent, R. Céolin, H.E. Fischer and J.P. Gaspard, “**Local order and metal–non-metal transition in $\text{Cd}_x\text{Te}_{1-x}$: a neutron diffraction study,**” *J. Non-Cryst. Solids.* **250-252**, 297 (1999).
- [51] Ubaldo Bafle, Kai Hochgesand, Roland Winter, Fabrizio Barocchi, Pierre Convert, Thomas Hansen and Henry E. Fischer, “**Neutron diffraction on mercury: density dependence of the static structure factor,**” *J. Non-Cryst. Solids.* **250-252**, 35 (1999).
- [50] H.E. Fischer, F.J. Bermejo, G.J. Cuello, M.T. Fernández-Díaz, J. Dawidowski, M.A. González, H. Schober and M. Jiménez-Ruiz, “**Quantitative evaluation of anharmonic and disorder effects on glassy dynamics,**” *Phys. Rev. Lett.* **82**, 1193 (1999).
- [49] R. Schad, P. Beliën, G. Verbanck, K. Temst, H. Fischer, S. Lefebvre, M. Bessière, D. Bahr, J. Falta, J. Dekoster, G. Langouche, V.V. Moshchalkov and Y. Bruynseraede, “**Giant magnetoresistance in Fe/Cr superlattices with and without bulk scattering,**” *J. Magn. Magn. Mater.* **198-199**, 104 (1999).
- [48] A. Burian, J.C. Dore, H.E. Fischer and J. Sloan, “**Structural studies of multi-wall carbon nanotubes by neutron diffraction,**” *Phys. Rev. B* **59**, 1665 (1999).

- [47] R. Schad, P. Beliën, G. Verbanck, V.V. Moshchalkov, Y. Bruynseraede, H.E. Fischer, S. Lefebvre and M. Bessière, **“Giant magnetoresistance dependence on the lateral correlation length of the interface roughness in magnetic superlattices,”** *Phys. Rev. B* **59**, 1242 (1999).
- [46] J.A. Blanco, J.I. Espeso, J. García Soldevilla, J.C. Gómez-Sal, M.R. Ibarra, C. Marquina and H.E. Fischer, **“The magnetic structure of GdCu through the martensitic structural transformation: a neutron diffraction study,”** *Phys. Rev. B* **59**, 512 (1999).
- [45] A. de Bernabé, M.J. Capitán, H.E. Fischer, S. Lequien, F.J. Mompeán, C. Prieto, C. Quirós, J. Colino, S. Lefebvre, M. Bessière and J.M. Sanz, **“Oxidation study of Co/Cu multilayers by resonant X-ray reflectivity,”** *Vacuum* **52**, 109 (1999).
- [44] Imre Bakó, Gábor Pálinkás, John Dore and Henry Fischer, **“Investigation of liquid 1,4 dioxane: an x-ray and neutron diffraction study,”** *Molec. Phys.* **96**, 743 (1999).
- [43] A. de Bernabé, M.J. Capitán, H.E. Fischer, C. Quirós, C. Prieto, J. Colino, F. Mompeán and J.M. Sanz, **“Combination of specular and off-specular low-angle x-ray diffraction in the study of Co/Cu multilayers: mesoscopic structure and layer oxidation,”** *Surf. Interface Anal.* **27**, 1 (1999).
- [42] D. Hugh Powell, Henry E. Fischer and Neal T. Skipper, **“The structure of interlayer water in Li-montmorillonite studied by neutron diffraction with isotopic substitution,”** *J. Phys. Chem. B* **102**, 10899 (1998).
- [41] Milva Celli, Renato Magli, Henry Fischer, Lothar Frommhold and Fabrizio Barocchi, **“Quantum mechanical effects on the static structure factor of pairs of ortho-deuterium molecules,”** *Phys. Rev. Lett.* **81**, 5828 (1998).
- [40] A.C. Barnes, S.B. Lague, M.A. Hamilton, H.E. Fischer, A.N. Fitch and E. Doryhee, **“A determination of the partial structure factors of liquid TlSe using combined X-ray and neutron diffraction,”** *J. Phys. Condens. Matter.* **10**, L645 (1998).
- [39] A. de Bernabé, M.J. Capitán, H.E. Fischer, C. Quirós, C. Prieto, J. Colino, F. Mompeán and J.M. Sanz, **“Combination of specular and off-specular low-angle x-ray diffraction in the study of metallic multilayers,”** *Solid State Commun.* **108**, 769 (1998).
- [38] V. Simonet, F. Hippert, H. Klein, M. Audier, R. Bellissent, H. Fischer, A.P. Murani and D. Boursier, **“Local order and magnetism in liquid AlPdMn alloys,”** *Phys. Rev. B* **58**, 6273 (1998).
- [37] Philip S. Salmon, Shuqin Xin and Henry E. Fischer, **“Structure of the glassy fast-ion conductor AgPS₃ by neutron diffraction,”** *Phys. Rev. B* **58**, 6115 (1998).
- [36] A. de Bernabé, M.J. Capitán, H.E. Fischer and C. Prieto, **“Study of interfaces in Co/Cu multilayers by low-angle anomalous x-ray diffraction,”** *J. Appl. Phys.* **84**, 1881 (1998).
- [35] R. Schad, P. Beliën, G. Verbanck, K. Temst, V.V. Moshchalkov, Y. Bruynseraede, H. Fischer, S. Lefebvre, M. Bessière, D. Bahr, J. Falta, J. Dekoster and G. Langouche,

- “Quantitative interface roughness analysis of Fe-Cr superlattices,”** *Superlattices and Microstructures* **24**, 239 (1998).
- [34] C. Talón, M.A. Ramos, S. Vieira, G.J. Cuello, F.J. Bermejo, A. Criado, M.L. Senent, S.M. Bennington, H.E. Fischer and H. Schober, **“Low-temperature specific heat and glassy dynamics on a polymorphic molecular solid,”** *Phys. Rev. B* **58**, 745 (1998).
- [33] R. Schad, P. Beliën, G. Verbanck, C.D. Potter, H. Fischer, S. Lefebvre, M. Bessière, V.V. Moshchalkov and Y. Bruynseraede, **“A quantitative study of the interdependence of interface structure and giant magnetoresistance in polycrystalline Fe/Cr superlattices,”** *Phys. Rev. B* **57**, 13692 (1998).
- [32] S.A. van der Aart, P. Verkerk, A.C. Barnes, P.S. Salmon, R. Winter, H. Fischer, L.A. de Graaf and W. van der Lugt, **“Structure in liquid KTI investigated by means of neutron diffraction using ^{205}Tl isotope substitution,”** *Physica B* **241–243**, 961 (1998).
- [31] F.J. Bermejo, G.J. Cuello, J. Dawidowski, A. Criado, H.E. Fischer, H. Schober, M.A. González and S.M. Bennington, **“Disorder effects on glassy dynamics: separation of orientational and positional correlations,”** *Physica B* **241–243**, 883 (1998).
- [30] H. Bertagnolli, I. Waldner, K. Tödheide and H. Fischer, **“Neutron diffraction experiments on ethane under high pressure,”** *Molec. Phys.* **94**, 325 (1998).
- [29] G. Brandstätter, H.W. Weber, T. Chattopadhyay, R. Cubitt, H. Fischer, M. Wylie, G.A. Emel’chenko and A. Wiedenmann, **“Neutron diffraction by the flux line lattice in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ single crystals,”** *J. Appl. Cryst.* **30**, 571 (1997).
- [28] J.K. Walters, M. Kühn, C. Spaeth, H. Fischer, F. Richter and R.J. Newport, **“Neutron diffraction studies of amorphous CN_x materials,”** *Phys. Rev. B* **56**, 14315 (1997).
- [27] F.J. Bermejo, A. Criado, R. Fayos, R. Fernández-Perea, H.E. Fischer, E. Suard, A. Guelylah and J. Zúñiga, **“Structural correlations in disordered matter: an experimental separation of orientational and positional contributions,”** *Phys. Rev. B* **56**, 11536 (1997).
- [26] A.C. Barnes, S.B. Lague, P.S. Salmon and H.E. Fischer, **“A determination of the structure of liquid Ag_2Se using neutron diffraction and isotopic substitution,”** *J. Phys. Condens. Matter* **9**, 6159 (1997).
- [25] F.J. Bermejo, R. Fernández-Perea, M. Alvarez, B. Roessli, H.E. Fischer and J. Bossy, **“Collective, short-wavelength excitations in liquid gallium,”** *Phys. Rev. E* **56**, 3358 (1997).
- [24] G. Brandstätter, A. Vostner, H.W. Weber, T. Chattopadhyay, R. Cubitt, H. Fischer and G.A. Emel’chenko, **“Neutron diffraction by the flux line lattice in $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ single crystals,”** *Physica C* **282–287**, 2089 (1997).
- [23] M.A. Ramos, S. Vieira, F.J. Bermejo, J. Dawidowski, H.E. Fischer, H. Schober, M.A. González, C.K. Loong and D.L. Price, **“A quantitative assessment of the**

- effects of orientational and positional disorder on glassy dynamics in a poly-morphic molecular solid,” *Phys. Rev. Lett.* **78**, 82 (1997).
- [22] R. Fayos, F.J. Bermejo, J. Dawidowski, H.E. Fischer and M.A. González, “**The relationship between intermediate-range order in glasses and discernible features in the static structure factor,**” *Physica B* **234–236**, 448 (1997).
- [21] H.E. Fischer, F.J. Bermejo, R. Fayos, J. Dawidowski, M.A. Ramos, S. Vieira, H. Schober and M.A. González, “**Polymorphic ethyl alcohol as a model system for the quantitative study of glassy behavior,**” *Physica B* **234–236**, 433 (1997).
- [20] M. Celli, F. Barocchi, H. Fischer and R. Magli, “**The structure of low-density ortho-deuterium investigated through neutron diffraction,**” *Physica B* **234–236**, 331 (1997).
- [19] F.J. Bermejo, H.E. Fischer, M.A. Ramos, A. de Andrés, J. Dawidowski and R. Fayos, “**Microscopic dynamics in glasses in relation to that shown by other complex systems,**” *Complex Behaviour of Glassy Systems*, edited by M. Rubí and C. Pérez-Vicente (Springer, Berlin, 1997), Lecture Notes in Physics **492**, p. 44.
- [18] R. Fayos, F.J. Bermejo, J. Dawidowski, H.E. Fischer and M.A. González, “**Direct experimental evidence of the relationship between intermediate-range order in topologically disordered matter and discernible features in the static structure factor,**” *Phys. Rev. Lett.* **77**, 3823 (1996).
- [17] J.B.W. Webber, J.C. Dore, H. Fischer and L. Vuillard, “**Critical scattering by fluid cyclohexane in porous silica,**” *Chem. Phys. Lett.* **253**, 367 (1996).
- [16] R. Schad, J. Barnas, P. Beliën, G. Verbanck, C.D. Potter, H. Fischer, S. Lefebvre, M. Bessière, V.V. Moshchalkov and Y. Bruynseraede, “**Influence of different kinds of interface roughness on the giant magnetoresistance in Fe/Cr superlattices,**” *J. Magn. Magn. Mater.* **156**, 339 (1996).
- [15] A. Michel, V. Pierron-Bohnes, S. Lefebvre, M. Bessière and H. Fischer, “**Stabilization of the fcc Co structure in Co/Mn multilayers with very thin Mn layers,**” *J. Magn. Magn. Mater.* **156**, 23 (1996).
- [14] H.E. Fischer, H. Fischer, O. Durand, O. Pellegrino, S. Andrieu, M. Piecuch, S. Lefebvre and M. Bessière, “**Specular and off-specular anomalous x-ray scattering as quantitative structural probes of multilayers,**” *Nucl. Instr. Methods B* **97**, 402 (1995).
- [13] H.E. Fischer, F. Petroff, P. Beliën, S. Lequien, S. Lefebvre and M. Bessière, “**Interfacial structure and giant magnetoresistance in Fe/Cr superlattices,**” *J. Phys. IV France* **4**, C9-121 (1994).
- [12] H.E. Fischer, S. Brauer, A. Zaluska, M. Sutton, J.O. Ström-Olsen and G.B. Stephenson, “**Rapid crystallization of amorphous Co-Zr and Fe-B close to eutectic compositions,**” *Materials Science and Engineering A* **179/180**, 396 (1994).
- [11] P.A. Medwick, H.E. Fischer and R.O. Pohl, “**Thermal conductivity and specific heat of boron carbides,**” *Journal of Alloys and Compounds* **203**, 67 (1994).

- [10] S. Brauer, H.E. Fischer, J.O. Ström-Olsen, M. Sutton, A. Zaluska and G.B. Stephenson, “**In-situ x-ray scattering studies of polymorphic crystallization of metal-boron glasses,**” *Phys. Rev. B* **47**, 11757 (1993).
- [9] A. Sahnoune, J.O. Ström-Olsen and H.E. Fischer, “**Influence of spin-orbit scattering on the magnetoresistance due to enhanced electron-electron interactions,**” *Phys. Rev. B* **46**, 10035 (1992).
- [8] David G. Cahill, J.R. Olson, Henry E. Fischer, Susan K. Watson, R.B. Stephens, R.H. Tait, T. Ashworth and R.O. Pohl, “**Thermal conductivity and specific heat of glass-ceramics,**” *Phys. Rev. B* **44**, 12226 (1991).
- [7] Jeffrey R. Olson, Henry E. Fischer, Robert O. Pohl, “**Effect of crystallization on thermal conductivity and specific heat of two Corning glass-ceramics,**” *Journal of the American Ceramic Society* **74**, 564 (1991).
- [6] David G. Cahill, Henry E. Fischer, Susan K. Watson, R.O. Pohl and G.A. Slack, “**Thermal properties of boron and borides,**” *Phys. Rev. B* **40**, 3254 (1989).
- [5] David G. Cahill, Henry E. Fischer, Tom Klitsner, E.T. Swartz and R.O. Pohl, “**Thermal conductivity of thin films: measurements and understanding,**” *J. Vac. Sci. Technol. A* **7**, 1259 (1989).
- [4] Henry E. Fischer, David G. Cahill and Susan K. Watson, “**Specific heat, thermal conductivity and electrical resistivity of high temperature superconductors,**” *Comments Cond. Mat. Phys.* **14**, 65 (1988), (review paper: 63 pages, 139 refs.).
- [3] Tom Klitsner, J.E. VanCleve, Henry E. Fischer and R.O. Pohl, “**Phonon radiative heat transfer and surface scattering,**” *Phys. Rev. B* **38**, 7576 (1988).
- [2] N.A. Gershenfeld, J.E. VanCleve, W.W. Webb, H.E. Fischer, N.A. Fortune, J.S. Brooks and M.J. Graf, “**Percolating cermet thin-film thermistors between 50 mK – 300 K and 0–20 T,**” *J. Appl. Phys.* **64**, 4760 (1988).
- [1] H.E. Fischer, E.T. Swartz, R.O. Pohl, B.A. Jones, J.W. Wilkins and Z. Fisk, “**Crystal electric fields in heavy-electron metals: The specific heats of U_2Zn_{17} and $CeCu_6$ to 70 K,**” *Phys. Rev. B* **36**, 5330 (1987).

SUBMITTED PUBLICATIONS

- {1} K. Šulová, P. Jovári, Z. Molčanová, J. Ďurišin, J. Möllmer, B. Ballóková, Š. Michalik, N. Jasminská, M. Lazár, T. Brestovič, Z. Lukačová Bujňaková, M. Podobová, M. Šulíková, M. Fejerčák, H.E. Fischer, O. Ivashkok, R. Tang-Kong, L. Ward, A. Mehta and K. Saksl, “**Atomic structure devitrification and deuterium storage of Mg-Ni-Ce metallic glass,**” submitted to *Acta Materialia*.
- {2} Hesameddin Mohammadi, Anita Zeidler, Randall E. Youngman, Henry E. Fischer and Philip S. Salmon, “**Pressure dependent structure of amorphous magnesium aluminosilicates: The effect of replacing magnesia by alumina at the enstatite composition,**” submitted to *J. Chem. Phys.*

BOOK CHAPTERS, WORKS AS EDITOR

[[3]] H.E. Fischer and H. Schober (editors), “**Neutrons et Systèmes Désordonnés,**” (EDP Sciences, Les Ulis, 2003), *Proceedings de l'école thématique Structure et Dynamique des Systèmes Désordonnés* (Presqu'île de Giens, 26–29 May 2002), published as *J. Phys. IV France* **111**, 1–404 (2003).

[[2]] Henry Fischer (editor), “**College 6: Structure and dynamics of liquids and glasses,**” *ILL Annual Report 1995*, pp. 67–81.

[[1]] Henry E. Fischer, “**Magnetic cooling,**” *Experimental Techniques in Condensed Matter Physics at Low Temperatures*, edited by Robert C. Richardson and Eric N. Smith (Addison-Wesley Publishing Co., Redwood City, CA, 1988), *Frontiers in Physics* series **67**, p. 76.

CONFERENCE PROCEEDINGS

(28) Michela Brunelli, Gabriel Cuello, Brigitte Dubouloz, Henry Fischer and Gavin Vaughan, “**ADD2016 School and Conference on Analysis of Diffraction Data in Real-Space,**” *Meeting Report* (ILL, Grenoble, 26 Oct 2012), published as *Neutron News* **27:3**, 5–6 (2016).

(27) Camille Pallier, Georges Chollon, Patrick Weisbecker, Christel Gervais, Lionel Truflandier, Henry E. Fischer, Francis Teyssandier and Jean-Marc Leyssale, “**Structure locale du carbure de bore amorphe: caractérisation expérimentale et dynamique moléculaire ab initio,**” *Proceedings of Matériaux 2014* (Montpellier, 24–28 Nov 2014).

(26) Baptiste Farbos, Jean-Pierre Da Costa, Patrick Weisbecker, Christian Germain, Henry E. Fischer, Gérard L. Vignoles and Jean-Marc Leyssale, “**Modélisation atomistique de carbones graphéniques nanocristallins 2D et 3D: structure et propriétés élastiques,**” *Proceedings of Matériaux 2014* (Montpellier, 24–28 Nov 2014).

(25) Natalia Woznica, Lukasz Hawelek, Andrzej Burian, Stanislaw Duber, Mirosława Pawlyta, Henry E. Fischer and Stephane Rols, “**Graphene-like atomic structure of carbons obtained from saccharose,**” *Proceedings of Carbon 2014* (Jeju, Korea, 29 June–4 July 2014).

(24) Gérard L. Vignoles, Jean-Marc Leyssale, Jean-Pierre Da Costa, Marc Monthieux, Patrick Weisbecker, Pascal Puech, Henry E. Fischer, Stéphane Jouannigot, Philippe Mallet-Ladeira, Baptiste Farbos, Radu D. Urs, Maëva Lalanne, Antonio Gamboa and Georges Chollon, “**Nanotexture of Pyrolytic Carbon Matrices: a review of characterization and modeling studies,**” *Proceedings of Carbon 2014* (Jeju, Korea, 29 June–4 July 2014).

(23) Patrick Weisbecker, Baptiste Farbos, Jean-Marc Leyssale, Gérard Vignoles, Jean-Pierre Da-Costa and Henry E. Fischer, “**HRTEM and neutron diffraction: complementary tools for the production and validation of atomistic structural models of pyrocarbons,**” *Proceedings of Carbon 2013* (Rio de Janeiro, 14–19 July 2013).

- (22) Michela Brunelli, Brigitte Dubouloz and Henry Fischer, “**A Life of Refinement – 50 years of Neutron Scattering,**” *Proceedings of the Colloquium in honour of Alan Hewat* (ILL, Grenoble, 26 Oct 2012), published as *Neutron News* **24:2**, 10–11 (2013).
- (21) Camille Pallier, Georges Chollon, Patrick Weisbecker, Christel Gervais, Henry Fischer and Francis Teyssandier, “**Structural changes of CVD-Si-B-C coatings under thermal/thermomechanical treatment,**” *Proceedings of the 12th Conference of the European Ceramic Society – ECerS XII* (Stockholm, 19–23 June 2011).
- (20) Camille Pallier, Georges Chollon, Patrick Weisbecker, Christel Gervais, Henry Fischer and Francis Teyssandier, “**Evolution structurale des céramiques (Si)-(B)-C sous sollicitations thermomécaniques,**” *Proceedings des Journées Annuelles du GFC* (Limoges, 21–23 March 2011).
- (19) A.C. Barnes, H.E. Fischer and P.S. Salmon, “**La structure des systèmes désordonnés et sa mesure par diffraction,**” *Proceedings de l’école thématique Structure et Dynamique des Systèmes Désordonnés* (Presqu’île de Giens, 26–29 May 2002), in *Neutrons et Systèmes Désordonnés*, edited by H.E. Fischer and H. Schober (EDP Sciences, Les Ulis, 2003), published as *J. Phys. IV France* **111**, 59–96 (2003).
- (18) H.E. Fischer, P.S. Salmon and A.C. Barnes, “**La diffraction des neutrons et des rayons X pour l’étude structurale des liquides et des verres,**” *Proceedings de l’école thématique Neutrons et Matériaux* (Trégastel, 13–16 May 2001), in *Neutrons et Matériaux*, edited by W. Paulus and J. Meinel (EDP Sciences, Les Ulis, 2003), published as *J. Phys. IV France* **103**, 359–390 (2003).
- (17) J.F. Clergeau, P. Convert, D. Feltin, H.E. Fischer, B. Guerard, T. Hansen, G. Manzin, A. Oed and P. Palleau, “**Operation of sealed Microstrip Gas Chambers at the ILL,**” *IEEE proceedings of the Nuclear Science Symposium* (Lyon, 15–20 Oct 2000), published as *IEEE Transactions on Nuclear Science* **48**, Part 1, 1075 (2001).
- (16) H.E. Fischer, P.S. Salmon and A.C. Barnes, “**Combined neutron and x-ray diffraction for structural studies of liquids and glasses,**” *Proceedings of the ILL Millennium Symposium* (Grenoble, 6–7 Apr 2001), p. 103.
- (15) Ashok K. Adya, Haruaki Matsuura, Francis Hutchinson, Marcelle Gaune-Escard, Paul A. Madden, Adrian C. Barnes and Henry E. Fischer, “**Structural aspects of molten salts: Until millennium and beyond,**” *EUCHEM conference on molten salts 2000* (Karreboeksminde, Denmark, 20–25 Aug 2000).
- (14) G. Mao, A.G. Baboul, L.A. Curtis, D.L. Price, M.L. Saboungi, M.B. Armand, W.S. Howells and H.E. Fischer, “**Structure and dynamics of lithium polymer electrolytes,**” *Proceedings of the 12th International Symposium on Molten Salts* (Honolulu, 17–22 Oct 1999), published as *Molten Salts XII, Proceedings of the Electrochemical Society* **99**, Issue 41, 247–252 (2000).
- (13) A. Burian, J.C. Dore, H.E. Fischer, V. Honkimaki, J.B. Nagy, T. Kyotani, J. Sloan and A. Szczygielska, “**Neutron and high energy X-ray scattering studies of carbon nanotubes,**” *Proceedings of the 5th national symposium of synchrotron radiation users* (Warsaw, 1999), p. 7.

- (12) A. Szczygielska, A. Burian, J.C. Dore, S. Duber, H.E. Fischer and V. Honkimaki, **“Structural studies of graphitizing and non-graphitizing carbons by neutron and X-ray scattering,”** *Proceedings of the 5th national symposium of synchrotron radiation users* (Warsaw, 1999).
- (11) G.W. Neilson, D. Sullivan and H. Fischer, **“Neutron diffraction studies of aqueous solutions at elevated temperature and pressure,”** *Mineral Mag.* **62A**, 1068 (1998).
- (10) F. Leclercq, P. Damay, L. Ledoux, J.F. Jal, P. Lindner and H. Fischer, **“Facteur de structure du fluide moléculaire C₂D₆ dans la région critique de transition liquide-gaz,”** *Proceedings des 6èmes Journées de la Diffusion Neutronique (JDN6)* (Batz-sur-Mer, 14–16 May 1997), SYM3.
- (9) J.V. Davidovits, H. Fischer, W. Birch, P. Silberzan and M. Goldmann, **“Étude microscopique de la structure et de la formation de monocouches de silane sur silice en fonction de la température,”** *Proceedings SFP des 5èmes Journées de la Matière Condensée* (Orléans, 28–30 Aug 1996).
- (8) H.M. Fischer, H.E. Fischer, M. Bessière, J.-F. Bobo, O. Lenoble, S. Andrieu and M. Piecuch, **“Specular and off-specular x-ray scattering as quantitative structural probes of multilayers: application to Mn/Ir(111) superlattices,”** *Structure and Properties of Multilayered Thin Films*, edited by T.D. Nguyen, *et al.*, Materials Research Society Symposium Proceedings **382**, 339 (1995).
- (7) M. Gailhanou, T. Baumbach, H. Fischer, U. Marti, P.C. Silva, F.K. Reinhart and M. Ilegems, **“X-ray diffraction reciprocal-space mapping of III-V gratings,”** *Proceedings of the European Materials Research Society 1993 Spring Meeting* (Strasbourg, 4–7 May 1993).
- (6) S. Brauer, H.E. Fischer, J.O. Ström-Olsen, M. Sutton and G.B. Stephenson, **“Time-resolved x-ray scattering studies of rapid crystallization of amorphous metals,”** *Proceedings of the Third Annual Workshop on Subsecond Thermal Physics* (Vienna, Austria, Sept 1992), published as *Internat. J. Thermophysics* **14**, 541–553 (1993).
- (5) M. Sutton, S. Brauer, Y.S. Yang, H.E. Fischer, J.O. Ström-Olsen and G.B. Stephenson, **“Time-resolved x-ray scattering studies of crystallization in metallic glasses,”** *Proceedings of Accuracy in Powder Diffraction II* (Gaithersburg, MD, 26–29 May 1992), NIST Special Publication **846** 189-194.
- (4) Henry E. Fischer, S. Brauer, J.O. Ström-Olsen, M. Sutton, A. Zaluska, U. Köster and G.B. Stephenson, **“In-situ time-resolved x-ray studies of eutectic crystallization in amorphous Fe_{1-x}B_x and Co_{1-x}Zr_x,”** *Interface Dynamics and Growth*, edited by K.S. Liang, *et al.*, Materials Research Society Symposium Proceedings **237**, 159 (1992).
- (3) Y. Huai, R. W. Cochrane, Y. Shi, H.E. Fischer and M. Sutton, **“Structural properties of Co/Re superlattices,”** *Structure and Properties of Interfaces in Materials*, edited by W.A.T. Clark, *et al.*, Materials Research Society Symposium Proceedings **238**, 671 (1992).
- (2) David G. Cahill, Henry E. Fischer, Susan K. Watson, R.O. Pohl and G.A. Slack, **“Thermal properties of boron and borides,”** *Proceedings of the 9th International*

Conference on Boron, Borides and Related Compounds, edited by H. Werheit (Duisburg University Press, Allemagne, 1988), p. 113.

(1) H.E. Fischer, E.T. Swartz, P.R.H. Türkes and R.O. Pohl, “**Thermal properties of boron-rich borides,**” *Novel Refractory Semiconductors*, edited by D. Emin, T.L. Ase-lage and C. Wood, Materials Research Society Symposium Proceedings **97**, 69 (1987).

REFEREED REPORTS

<29> F.G. Alabarse, M. Jiménez Ruiz, H.E. Fischer, B. Coasne, J. Haines, J.B. Brubach, P. Roy, S. Klotz and L.E. Bove, “**About the formation of two distinct networks of water confined in hydrophilic zeolite nanopores at low temperatures,**” *ILL Annual Report 2021*, p. 34.

<28> P. Zalden, H.E. Fischer, K. Sokolowski-Tinten, “**How phase-change materials form a stable yet rapidly crystallisable glass in memory devices,**” *ILL Annual Report 2020*, p. 32.

<27> E. Lhotel, V. Simonet, L. Mangin-Thro, H. Fischer, “**Spin decoupling under a staggered field in the Gd₂Ir₂O₇ pyrochlore,**” *ILL Annual Report 2019*, p. 22.

<26> M. Diaz-Lopez, C.V. Colin, P. Bordet, V. Pralong and H.E. Fischer, “**Unraveling the lithium diffusion mechanisms in a highly disordered and nanostructured high-capacity cathode,**” *ILL Annual Report 2018*, p. 54.

<25> L. Desgranges, Yue Ma, Ph. Garcia, G. Baldinozzi, D. Siméone and H.E. Fischer, “**What is the actual local crystalline structure of uranium dioxide, UO₂? A new perspective for the most used nuclear fuel,**” *ILL Annual Report 2017*, p. 48.

<24> J.W.E. Drewitt, A.C. Barnes, S.C. Kohn, M.J. Walter, S. Jahn, A. Novikov, D.R. Neuville, H.E. Fischer and L. Hennet, “**Double-difference isotope substitution on liquid Ca₃Al₂O₆,**” *ILL Annual Report 2016*, p. 46.

<23> C. Cavallari, S. Rols, M. Jiménez-Ruiz, M.R. Johnson, H. Fischer, O. Meulien, A. Bertoni, D. Pontiroli, M. Riccò and S.F. Parker, “**Neutrons reveal ‘quantum tunneling’ on graphene,**” *ILL Annual Report 2016*, p. 26.

<22> A. Zeidler, K. Wezka, R.F. Rowlands, D.A.J. Whittaker, P.S. Salmon, A. Polidori, J.W.E Drewitt, S. Klotz, H.E. Fischer, M.C. Wilding, C.L. Bull, M.G. Tucker and M. Wilson, “**Networks under pressure,**” *ISIS Neutron and Muon Source Annual Review 2015*, p. 16.

<21> Lionel Desgranges and Henry Fischer, “**Disposing of spent nuclear fuel: The subtle oxidation mechanisms in uranium dioxide is uncovered by neutron experiments,**” *Highlights of ILL Research: Neutrons and Energy*, (2015) p. 19.

<20> A. Zeidler, P.S. Salmon, L.B. Skinner and H.E. Fischer, “**Packing and the structural transformations in liquid and amorphous oxides from ambient to extreme conditions,**” *ILL Annual Report 2014*, p. 26.

<19> J.W.E. Drewitt, L. Hennet, A. Zeidler, P.S. Salmon, S. Jahn, D.R. Neuville and H.E. Fischer, “**Fragile glass-formers reveal their structural secrets,**” *ILL Annual Report 2013*, p. 36.

- <18> Anita Zeidler, Philip S. Salmon, Henry E. Fischer, Jörg C. Neufeind, J. Mike Simonson, Hartmut Lemmel, Helmut Rauch and Thomas E. Markland, **“Oxygen as a site specific probe of the structure of water and oxide materials,”** *ILL Annual Report 2011*, p. 46.
- <17> A.C. Barnes, T.O. Farmer, H.E. Fischer, C.D. Dewhurst, J. Kozaily and P.S. Salmon, **“Turning up the heat on the liquid-liquid transition,”** *ILL Annual Report 2010*, p. 48.
- <16> A. Fernández-Martínez, L. Charlet, L. Murias-Fernández, G.J. Cuello, M.R. Johnson, Henry E. Fischer, L.J. Michot, M. Pelletier, O. Poncelet, J. Brendle, L. Vidal, I.C. Bourg and G. Sposito **“Water structure on the surface of imogolite, a natural nanotube found in volcanic soils,”** *ILL Annual Report 2009*, p. 38.
- <15> James W.E. Drewitt, Philip S. Salmon, Adrian C. Barnes, Stefan Klotz, Henry E. Fischer and Wilson A. Crichton, **“Structure of GeO₂ glass at pressures up to 8 GPa,”** *ILL Annual Report 2009*, p. 52.
- <14> J.M. Cole, S.J. Clarke, A.C. Wright, R.N. Sinclair, R.J. Newport, C.E. Fisher, R.A. Martin, G.J. Cuello and H.E. Fischer, **“Structure of rare-earth phosphate glass studied by anomalous dispersion neutron diffraction,”** *ILL Annual Report 2008*, p. 38.
- <13> L. Hennem, I. Pozdnyakova, S. Brassamin, D. Zanghi, D.L. Price, M.-L. Saboungi, V. Cristiglio, G.J. Cuello, P. Palleau and H.E. Fischer, **“Neutron diffraction on levitated liquids at the D4 diffractometer,”** *ILL Annual Report 2006*, p. 84.
- <12> R.A. Martin, P.S. Salmon, H.E. Fischer and G.J. Cuello, **“Relative distribution of rare-earth ions in phosphate glasses,”** *ILL Annual Report 2003*, p. 64.
- <11> J.C. Wasse, S. Hayama, N.T. Skipper, H.E. Fischer and P. Palleau, **“The solvation structure of lithium in ammonia,”** *ILL Annual Report 2001*, p. 58.
- <10> H.E. Fischer, G.J. Cuello, P. Palleau and D. Feltin, **“The D4c diffractometer for liquids and glasses,”** *ILL Annual Report 2000*, p. 93.
- <9> T. Pfeleiderer, I. Waldner, H. Bertagnolli, K. Tödheide and H.E. Fischer, **“Hydrogen fluoride: a model system for the understanding of the hydrogen bond,”** *ILL Annual Report 2000*, p. 34.
- <8> J. Dore, C. Haggmüller, P. Behrens and H. Fischer, **“Liquid water at $-45\text{ }^{\circ}\text{C}$, the effects of confinement,”** *ILL Annual Report 1999*, p. 28.
- <7> M. Jiménez-Ruiz, A. Criado, F.J. Bermejo, C. Cabrillo, G.J. Cuello, F.R. Trouw, R. Fernández-Perea, H. Löwen and H.E. Fischer, **“A purely dynamical signature of the orientational glass transition,”** *ILL Annual Report 1999*, p. 24.
- <6> D.H. Powell, H.E. Fischer and N.T. Skipper, **“Probing the water interactions in clay,”** *ILL Annual Report 1998*, p. 56.
- <5> A.K. Adya, O.N. Kalugin, H.E. Fischer and D. Sullivan, **“Microscopic structure of NiCl₂ in methanol,”** *ILL Annual Report 1998*, p. 54.
- <4> I. Petri, P.S. Salmon and H.E. Fischer, **“Structure of the binary network glass GeSe₂,”** *ILL Annual Report 1998*, p. 52.

<3> H. Fischer, “**Recent developments in the D4c diffractometer project,**” *ILL Annual Report 1997*, p. 85.

<2> A.C. Barnes, S.B. Lague, M. Hamilton, H. Fischer, W.S. Howells and P.S. Salmon, “**Structure and dynamics of liquid Ag₂Se,**” *ILL Annual Report 1997*, p. 32.

<1> H.E. Fischer, H. Schober, M.A. González, F.J. Bermejo, R. Fayos, J. Dawidowski, M.A. Ramos and S. Vieira, “**Polymorphic ethyl alcohol as a model system for the quantitative study of glassy behaviour,**” *ILL Annual Report 1996*, p. 18.

EXPERIMENTAL REPORTS (as principal proposer)

H.E. Fischer, M.A. Gonzalez and N. Martin, “**Orientalional and translational relaxation in low-temperature deuterated ethanol phases,**” *FRM-II experimental report for proposal 7813*, instrument RESEDA (26 Nov – 5 Dec 13).

H.E. Fischer, L. Hennem, M. Leydier, C. Dewhurst and P. Cross, “**Magnetic fluctuations in liquid alloys,**” *ILL experimental report 6-03-373*, instrument D22 (6–10 Nov 08).

H.E. Fischer, J. Neufeind, J.M. Simonson, E. Bychkov and H. Lemmel, “**Coherent scattering length measurements of O, S, Si and Nd isotopes,**” *ILL experimental report CRG-1394*, instrument S18 (24 Sept – 17 Oct 08).

H.E. Fischer, L. Hennem, V. Cristiglio, D. Zanghi, I. Pozdnyakova, R.P. May, D.L. Price and S. Wood, “**SANS studies of levitated liquids at very high temperature: Magnetic fluctuations and liquid-liquid phase separation,**” *ILL experimental report 6-03-342*, instrument D22 (19–22 Oct 06).

H.E. Fischer, L. Hennem, D. Zanghi, A. Bychkov, V. Cristiglio, D.L. Price, R. May, I. Pozdnyakova and M.L. Saboungi, “**Magnetic and structural order in levitated molten alloys studied by SANS,**” *ILL experimental report 6-03-330*, instrument D22 (15–16 June 05).

H.E. Fischer, L. Hennem, D.L. Price, A. Bychkov, G.J. Cuello, V. Cristiglio and P. Palteau, “**Magnetic ordering in a liquid alloy studied via neutron diffraction,**” *ILL experimental report 6-03-309*, instrument D4c (22–28 Apr 04).

H.E. Fischer, M.A. Gonzalez, J-L. Ragazzoni and B. Frick, “**Glassy two-level tunneling systems in the amorphous and orientational glass phases of hydrogenated ethanol,**” *ILL experimental report 6-05-368*, instrument IN16 (17–23 Mar 98).

H.E. Fischer, F.J. Bermejo, G. Cuello, M.T. Fernandez-Diaz and M.A. Gonzalez, “**Pressure dependence of the glassy & crystal phases of deuterated ethanol studied through neutron diffraction,**” *ILL experimental report 6-05-369*, instrument D1b (10–14 Feb 98).

H.E. Fischer, M.A. Gonzalez, J-L. Ragazzoni and B. Frick, “**Direct observation of glassy two-level tunneling systems in the amorphous & orientational glass phases of deuterated ethanol,**” *ILL experimental report 6-05-357*, instrument IN16 (11–15 Aug 97).

H.E. Fischer, F.J. Bermejo, J. Dawidowski, R. Fayos, M.A. Gonzalez, M.A. Ramos and H. Schober, “**Structural and orientational glass transitions in ethanol under pressure,**” *ILL experimental report 6-05-335*, instrument IN6 (11–17 Mar 97).

H.E. Fischer, R. Fayos, M.A. Gonzalez and E. Suard, “**Crystal, glass and glassy crystal phases of deuterated ethanol and hydrogenated ethanol,**” *ILL experimental report 6-05-320*, instruments D2b/D4 (2–4 July 96) / (14–17 Apr 96).

H.E. Fischer, R. Schäd, P. Beliën, M. Bessière and S. Lefebvre, “**Magnétorésistance géante et structure interfaciale dans des super-réseaux Fe/Cr subis aux récuits,**” *Rapport d’Activité LURE (1992–1996)*, p. 325.

Henry E. Fischer, S. Brauer, M. Sutton, J.O. Ström-Olsen and G.B. Stephenson, “**In-situ time-resolved x-ray studies of eutectic crystallization in amorphous $\text{Fe}_{1-x}\text{B}_x$ and $\text{Co}_{1-x}\text{Zr}_x$,**” *Annual Report (1991) of the National Synchrotron Light Source, Brookhaven National Laboratory*.

Henry E. Fischer, S. Brauer, J.O. Ström-Olsen, M. Sutton and G.B. Stephenson, “**Time resolved x-ray scattering studies of rapid crystallization in amorphous $\text{Fe}_{1-x}\text{B}_x$ near the eutectic,**” *Annual Report (1990) of the National Synchrotron Light Source, Brookhaven National Laboratory*, edited by S.L. Hulbert and N.M. Lazarz, p. 312.

OTHER REPORTS

Gabriel J. Cuello and Henry E. Fischer, “**Instrument Review D4,**” *Review of the D4 instrument by the ILL Scientific Council*, 23-24 Sept 2021, including an oral presentation.

Gabriel J. Cuello and Henry E. Fischer, “**Instrument Monitoring D4,**” *DIF Instrument Monitoring*, 3 May 2021, including an oral presentation.

Henry E. Fischer and Gabriel J. Cuello, “**D4: Liquids and Amorphous Diffractometer,**” *ILL Instrument Review 2011*, pp. 76–80, March 2011.

Henry Fischer, *et al.*, “**Rapport sur le ROC de D20,**” (14 pages, 3 refs.), 11 Oct 2006.

Henry Fischer and Alan Hewat, “**Le projet DRACULA sur H123: Cahier de Charges,**” (30 pages, 26 refs.), 1 Sept 2006.

H.E. Fischer, P. Palleau and D. Feltin, “**Results of the D4c prototype tests and review of the project,**” ILL report No. ILL98FI15T (99 pages, 71 refs.), 17 Nov 1998.

Henry E. Fischer, “**Mémoire présenté pour l’obtention d’une habilitation à diriger les recherches,**” mémoire DHDR (118 pages, 113 refs.), Université Joseph Fourier (Grenoble I), soutenue le 24 Oct 1997.

Henry Fischer, “**D4: diffractometer for liquids and amorphous materials,**” *ILL Yellow Book 1997*, p. 12.

H. Fischer, “**Specular and off-specular small-angle x-ray scattering in multilayers,**” *ILL Annual Report 1994*, p. 62.

H.E. Fischer, “**Giant magnetoresistance and interfacial structure in Fe/Cr superlattices,**” *ILL Annual Report 1994*, p. 56.

Henry Edward Fischer, “**Thermal transport in solids: diffusive and radiative regimes,**” thèse Ph.D. (505 pages, 252 refs.), Cornell University, Ithaca, NY, Jan 1990.

Henry E. Fischer, “**Tunneling systems in superconducting $\text{YBa}_2\text{Cu}_3\text{O}_7$,**” rapport de Master of Science (M.Sc.) (23 pages, 23 refs.), Cornell University, Ithaca, NY, 7 Sept 1987.

Henry E. Fischer, “**Phonons in superlattices,**” rapport de Master of Science (M.Sc.) (50 pages, 65 refs.), Cornell University, Ithaca, NY, 7 Sept 1987.

INVITED SEMINARS

“BIFA: A new application of Fourier techniques in diffraction,” Cookies & Science seminar (ILL Diffraction Group, Grenoble, 19 Jan 2024).

“PDF-analysis of local structure in disordered materials,” HERCULES lecture (Grenoble, 17 March 2023).

“Total-scattering methods as a probe of local structure and correlated disorder in materials,” Plenary Lecture at the Maier-Leibnitz Zentrum (MLZ) User Meeting (Munich, 9 Dec 2022).

“From Q-space to R-space: Introduction to atomic and magnetic PDF-analysis,” Structure Group of the Technische Universität München (TUM) and Forschungs-Neutronenquelle Heinz Maier-Leibnitz (MLZ, FRM-II), Munich (via zoom), 11 May 2022 (part 1) and 22 June 2022 (part 2).

“From Q-space to R-space: Introduction to PDF-analysis,” tutorial à l’école HERCULES (Grenoble, 28 March 2022).

“From Q-space to R-space: Introduction to PDF-analysis,” tutorial à l’école HERCULES (Grenoble, 11 March 2020).

“Magnetic PDF-analysis: a real-space probe of static and dynamic short-range spin-spin correlations,” ILL Public Talk of the 101st Scientific Council meeting (ILL, Grenoble, 8 November 2019).

“The PhD pedagogical programme of the ILL Graduate School (IGS),” 100th ILL Scientific Council meeting (Château des Comtes de Challes, Challes les Eaux, 12 April 2019).

“From Q-space to R-space: Introduction to PDF-analysis,” tutorial à l’école HERCULES (Grenoble, 28 March 2018).

“From Q-space to R-space: Introduction to PDF-analysis,” Cookies & Science seminar (ILL Diffraction Group, Grenoble, 4 and 6 Oct 2016).

“The ILL’s updated Data Policy document,” ILL Science Advisory Board (SAB) meeting (ILL, Grenoble, 27 September 2016).

“Neutron diffraction on disordered systems,” tutorial à l’école HERCULES (Grenoble, 27 and 28 March 2016).

“Neutron powder diffraction and PDF-analysis,” au School on Physics and Chemistry of the Actinides (JdA-2016) (ILL, Grenoble, 15 March 2016).

“Diffractometer for liquids/glasses and disordered materials,” D4 instrument monitoring (ILL, Grenoble, 14 March 2016).

“Techniques in Diffraction (X or N): S(q), PDF analysis, Deconvolution,” Laboratoire des Composites ThermoStructuraux (LCTS), Bordeaux, 14 June 2013, and Institute of Organic Chemistry and Biochemistry (IOCB), Academy of Sciences of the Czech Republic, Prague, 24 March 2014.

“Resolution effects and deconvolution of diffraction data,” SciSoft coffee seminar (ESRF, Grenoble, 19 April 2013).

“What S(q) can do for you,” Technische Universität München (TUM) and Forschungs-Neutronenquelle Heinz Maier-Leibnitz (FRM-II), Munich, 10 Dec 2012.

“Science@D4,” DIF Group Outdoor Meeting (Chateau de la Baume, Seyssins, 10 Feb 2012).

“The D4 diffractometer for liquids/glasses and disordered materials,” ILL Instrument Review 2011 (ILL, Grenoble, 23 March 2011).

“Neutron Diffraction Science: D4c, D22, S18,” DIF Group Outdoor Meeting (Chateau de la Baume, Seyssins, 21 June 2007).

“DIF Instrumentation Development: D20, D4c, DRACULA,” DIF Group Outdoor Meeting (Chateau de la Baume, Seyssins, 20 June 2007).

“The DRACULA project: Current status,” ILL Instrument Subcommittee Meeting (Grenoble, 2 Feb 2007).

“Disorder and glassy behavior in ethanol at low temperature,” Hahn-Meitner Institut (HMI), Berlin, 5 Dec 2006.

“New scientific perspectives with DRACULA,” 75th meeting of the ILL Scientific Council (Grenoble, 10 Nov 2006).

“Liquids and glasses diffraction,” student training seminar à l’Institut Laue-Langevin (ILL), Grenoble, 13 June 2006.

“Collaboration possibilities between ESA and the ILL,” Institut Laue-Langevin (ILL), Grenoble, 27 Apr 2005.

“Determination of liquid and glass structures by neutron and x-ray diffraction,” tutorial à l’école HERCULES (Grenoble, 21 Mar 2005).

“Structure des liquides, des verres et des polymères par diffraction de neutrons et de rayons X,” Ecole Polytechnique, Palaiseau, 9 Mar 2005.

“Neutron and x-ray diffraction for structural studies of liquids and glasses,” au Workshop on Local Structure in Materials and Disorder in Crystalline Materials (Oak Ridge, TN, 1 Nov 2004).

“La diffraction des neutrons et des rayons X pour l’étude structurale des verres et des liquides,” à l’école thématique Neutrons et Matériaux (JDN10) (Trégastel, 16 May 2001).

“Diffuse x-ray scattering from multilayer interfaces as related to the stray light problem in XUV lithography,” Carl Zeiss, Oberkochen, 19 Feb 2001.

“Le système universitaire américain et sa comparaison au système français,” Université Paris-Sud, Orsay, 6 Feb 2001, 29 Jan 2002, 29 Jan 2003.

“Results and interpretation of D4c tests,” Institut Laue-Langevin (ILL), Grenoble, 15 Sept 2000.

“Disorder and glassy behavior in ethanol,” Physics Department, University of Arizona, Tucson, 4 Apr 2000.

“Determination of liquid and glass structures by neutron and x-ray scattering,” tutorial à l’école HERCULES (Grenoble, 30 Mar 1999).

“Le comportement vitreux vu à travers les différentes phases de l’éthanol,” Laboratoire de Physique des Solides (LPS), Orsay, 16 Feb 1999.

“Applications du rayonnement synchrotron à l’étude de la structure et de la dynamique des systèmes désordonnés,” Laboratoire pour l’Utilisation du Rayonnement Électromagnétique (LURE), Orsay, 15 Feb 1999.

“La structure des multicouches vis-à-vis des propriétés de transport/magnétisme des super-réseaux métalliques,” laboratoire CRISMAT (ISMRA), Caen, 22 Jan 1999.

“Applications of x-ray anomalous diffraction and neutron diffraction with isotopic substitution to structural studies of ordered and disordered materials,” European Synchrotron Radiation Facility (ESRF), Grenoble, 2 Dec 1998.

“Topical discussions on disordered systems: I. Introduction,” Institut Laue-Langevin (ILL), Grenoble, 21 Oct 1998.

“Comportement vitreux des phases de l’éthanol,” Laboratoire des Verres, Université Montpellier II, 3 June 1998.

“Études par diffraction des rayons X de la structure interfaciale de multicouches et de son influence sur les propriétés de transport et de magnétisme dans les super-réseaux métalliques,” Laboratoire de Physique des Matériaux (LPM), Université Henri Poincaré, Nancy, 23 Apr 1998.

“Determination of liquid and glass structures by neutron scattering,” tutorial à l’école HERCULES (Grenoble, 23 Mar 1998).

“Comportement vitreux de phases de l’éthanol,” Centre de Recherche sur les Très Basses Températures (CRTBT/CNRS), Grenoble, 20 Feb 1998.

“Études de structure interfaciale de multicouches par diffraction spéculaire et hors-spéculaire des rayons X,” Centre d’Élaboration de Matériaux et d’Études Structurales (CEMES/CNRS), Toulouse, 21 Jan 1998.

“Mesures de la chaleur spécifique de systèmes fermions lourds et d’autres études à basse température et en diffusion des neutrons,” IRSAMC, Université Paul Sabatier, Toulouse, 19 Jan 1998.

“Partial structure factor determination in neutron diffraction,” tutorial à l’école HERCULES (Grenoble, 25 Mar 1997).

“D4c: a new microstrip detector system,” Institut Laue-Langevin (ILL), Grenoble, 6 Mar 1997.

“Partial structure factor determination in neutron diffraction,” tutorial à l’école HERCULES (Grenoble, 28 Mar 1996).

“Études de structures artificielles par diffraction X spéculaire et hors-spéculaire,” à l’École sur le Rayonnement Synchrotron et les Sciences de la Matière GALERNE (Nouan-le-Fuzelier, 17–22 Sept 1995).

“Determination of liquid structures by neutron scattering,” tutorial à l’école HERCULES (Grenoble, 31 Mar 1995).

“Études structurales de multicouches par diffraction X anormale spéculaire et hors-spéculaire,” CECM Vitry, Paris (26 Apr 1994), LURE, Orsay (2 May 1994), and CEA Grenoble (16 May 1994).

“Diffraction anormale spéculaire et hors-spéculaire des rayons X dans des multicouches,” Laboratoire de Cristallographie (CNRS), Grenoble, 7 Feb 1994.

“In-situ time-resolved x-ray studies of eutectic crystallization in amorphous alloys,” University of Missouri, Columbia (Jan 1992), NIST, Gaithersburg (13 Feb 1992), and Advanced Photon Source, Chicago (spring 1992).

“Phonon blackbody radiation,” McGill University, Montréal (autumn 1989) and University of California at Berkeley (summer 1989).

“Low temperature physics in high temperature superconductors,” Low Temperature Group, Cornell University, Ithaca, 7 Apr 1988.

“Mischievous f electrons, or: What have they done to my heat capacity?,” séminaire ‘Humbles’ au sein des thésards en physique à Cornell University, 13 Aug 1986.

“A synopsis of relativistic S-matrix theory,” séminaire entre thésards du Physics Department, Cornell University, summer 1985.

CONFERENCE CONTRIBUTIONS (as speaker or first author)

(I don’t attempt to estimate the number of conference talks and posters to which I contributed but was not speaker or first author)

“Magnetic frustration in SrLn_2O_4 compounds studied by magnetic PDF-analysis,” oral contribution at the European Conference on Neutron Scattering (ECNS2019) (Saint Petersburg, 3 July 2019).

“Quantum effects in water as studied by ^{18}O isotopic substitution in neutron diffraction,” exposé oral aux 20èmes Journées de la Diffusion Neutronique (JDN20) (Seignosse, 22–24 May 2012).

“R-space effects of Q-space resolution: Deconvolution of neutron diffraction data from a reactor source,” poster à l’International Workshop on Analysis of Diffraction Data in Real Space (ADD2011) (ILL, Grenoble, 12–14 Oct 2011).

“Some notes on resolution effects in diffraction,” poster à l’International Workshop on Powder Diffraction with 2-Dimensional Detectors (PD2DD) (ILL, Grenoble, 26–27 Feb 2008).

“Magnetic fluctuations in metallic liquids studied by SANS using a containerless aerodynamic levitation technique,” poster à l’International Workshop on Current Challenges in Liquid and Glass Science (Spencerfest) (Cosener’s House, Abingdon, 10 Jan 2007).

“Recent developments at the D20 instrument,” poster à l’ILL Millennium Symposium and European Users Meeting (Grenoble, 28 Apr 2006).

“Dracula (Diffractometer for Rapid ACquisition),” poster à l’ILL Millennium Symposium and European Users Meeting (Grenoble, 28 Apr 2006).

“Structure des liquides et des verres par diffraction des neutrons et des rayons X,” exposé oral **invité** au Colloque Grands Instruments des 9ème Journées de la Matière Condensée (JMC9) (Nancy, 31 Aug 2004).

“New diffractometers for new science at the ILL,” exposé oral **invité** au Neutron and Muon Users Meeting (NMUM 2004) (Warwick University, Coventry, 29 June 2004).

“Neutron diffraction from high-temperature levitated melts,” poster au Third European Conference on Neutron Scattering (ECNS 2003) (Montpellier, 3–6 Sept 2003).

“Diffraction from disordered systems,” exposé oral **invité** au IUCr satellite meeting *Crystal Chemistry of New Materials & Soft Matter Studied by Synchrotron & Neutron Diffraction* (Grenoble, 1–3 Aug 2002).

“La complémentarité de la diffraction des rayons X et des neutrons pour l’étude des systèmes désordonnés,” exposé oral **invité** à la Table Ronde des Journées Soleil Région Centre 2 (JSRC-2) (Orléans, 19 Feb 2002).

“Combined neutron and x-ray diffraction for structural studies of liquids and glasses,” poster au ILL Millennium Symposium (Grenoble, 6–7 Apr 2001).

“Couplage neutrons/rayons-X pour l’étude structurale des verres et des liquides,” exposé “clip” et poster aux 9èmes Journées de la Diffusion Neutronique (JDN9) (Colleville-sur-Mer, 24–26 May 2000).

“The D4c neutron diffractometer for liquids and glasses,” poster au Second European Conference on Neutron Scattering (ECNS’99) (Budapest, 1–4 Sept 1999).

“Les phases de l’éthanol: un système modèle pour l’étude quantitative du comportement vitreux,” exposé “clip” et poster aux 8èmes Journées de la Diffusion Neutronique (JDN8) (La Grande Motte, 19–21 May 1999).

“The D4 diffractometer for liquids and glasses,” exposé oral **invité** au Workshop *Review of neutron diffraction ILL instruments for powders and disordered systems* (Grenoble, 22–23 Mar 1999).

“Résultats des tests du détecteur prototype D4c à l’ILL,” exposé “clip” et poster aux 7èmes Journées de la Diffusion Neutronique (JDN7) (Albé, 13–15 May 1998).

“3 thèmes: Radiation de phonons du corps noir, Structure de multicouches par diffraction des rayons X, Comportement vitreux des phases de l’éthanol,” soutenance d’habilitation (DHDR), Grenoble, 24 Oct 1997.

“Disorder and glassy behavior in the solid phases of ethanol,” exposé oral **invité** au American Crystallographic Association (ACA) annual meeting (St. Louis, 24 July 1997).

“Polymorphic ethanol as a model system for the quantitative study of glassy behaviour,” exposé oral et proceeding au 5ème congrès de Disorder in Molecular Solids (DISMOS-5) (Garchy, 25–29 May 1997).

“Liquids and amorphous solids as studied using neutron scattering instruments and techniques at the ILL,” exposé oral **invité** au Workshop *What can neutrons do for you?* (Turin, 8–10 Jan 1997).

“Polymorphic ethanol as a model system for the quantitative study of glassy behavior,” exposé oral au First European Conference on Neutron Scattering (ECNS’96) (Interlaken, 8–11 Oct 1996).

“Polymorphic ethyl alcohol as a model system for the quantitative study of amorphous molecular solids,” poster au 3rd Liquid Matter Conference (Norwich, 6–10 July 1996).

“Études de structures artificielles par diffraction X spéculaire et hors-spéculaire,” poster aux 10ème Journées Surfaces et Interfaces (Grenoble, 1–2 Feb 1996).

“Neutron diffraction of liquids and amorphous solids at the ILL (D4 instrument),” poster au U.K. Neutron and Muon Beam Users’ Meeting (Manchester, 3–4 Apr 1995).

“Études structurales de multicouches par diffraction X anormale spéculaire et hors-spéculaire,” exposé oral à la Réunion de l’Association Française de Cristallographie (AFC) (Grenoble, 24–27 Jan 1995).

“Specular and off-specular anomalous x-ray scattering as quantitative structural probes of multilayers,” exposé oral au First European Conference on Synchrotron Radiation in Materials Science (Chester, 3–8 July 1994).

“Interfacial structure and giant magnetoresistance in Fe/Cr superlattices,” poster au Colloque LURE (Gif-sur-Yvette, 6–10 June 1994).

“Magnétorésistance géante et structure interfaciale de super-réseaux Fe/Cr,” poster et proceeding au Colloque Louis Néel *Couches Minces et Multicouches Magnétiques* (Fouesnant-Cap Coz, 20–22 Apr 1994), et poster au 2ème Colloque *Jeunes Chercheurs en Physique* (Orsay, 17–18 Mar 1994).

“Interfacial structure and giant magnetoresistance in Fe/Cr superlattices,” poster au European Symposium on Frontiers in Science and Technology with Synchrotron Radiation (Aix-en-Provence, 5–8 Apr 1994).

“Giant magnetoresistance and interfacial diffusion in Fe/Cr superlattices,” poster **invité** au ESRS Congress (Grenoble, 22–23 Sept 1993).

“In-situ time-resolved x-ray studies of eutectic crystallization in amorphous $\text{Fe}_{1-x}\text{B}_x$ and $\text{Co}_{1-x}\text{Zr}_x$,” exposé oral au Materials Research Society Fall Meeting (Boston, 2–6 Dec 1991), et exposé oral au March Meeting of the American Physical Society (Indianapolis, 16–20 Mar 1992).

“Rapid eutectic crystallization in amorphous $\text{Fe}_{1-x}\text{B}_x$,” exposé oral au March Meeting of the American Physical Society (Cincinnati, 18–22 Mar 1991).

“Phonon blackbody radiation in anisotropic crystals,” exposé oral au March Meeting of the American Physical Society (New Orleans, 21–25 Mar 1988).

“Phonon specularity of polished crystal surfaces,” poster au March Meeting of the American Physical Society (New York, 16–20 Mar 1987).

“Specific heat measurements on heavy fermion metals,” exposé oral au March Meeting of the American Physical Society (Las Vegas, 31 Mar – 4 Apr 1986).

OTHER CONFERENCES ATTENDED (no contribution presented)

School and Conference on Analysis of Diffraction Data in Real Space (ADD2022) (ILL, Grenoble, 16–21 Oct 2022).

School and Conference on Analysis of Diffraction Data in Real Space (ADD2019) (ILL, Grenoble, 17–22 Mar 2019).

School and Conference on Analysis of Diffraction Data in Real Space (ADD2016) (ILL, Grenoble, 7–11 Mar 2016).

Festveranstaltung “10 Jahre FRM-II” (Physik Department der TUM, Garching bei München, 12 Mar 2014).

DIF Group Outdoor Meeting (Golf Grenoble Charmeil, Saint Quentin sur Isère, 31 Jan – 1 Feb 2013).

School and Conference on Analysis of Diffraction Data in Real Space (ADD2013) (ILL, Grenoble, 18–22 Mar 2013).

DIF Group Outdoor Meeting (Chateau de la Baume, Seyssins, 20–21 Jan 2011).

ILL 2020 Vision (World Trade Center, Grenoble, 15–17 Sept 2010).

DIF Group Outdoor Meeting (Chateau de la Baume, Seyssins, 3–4 Dec 2009).

ILL Scientists’ Outing (Villard de Lans, 25–27 Feb 2009).

Brainstorming Meeting to discuss the proposed ILL/ESRF Partnership for Extreme Conditions Science (9–10 Feb 2009).

DIF Group Outdoor Meeting (Chateau de la Baume, Seyssins, 23 Oct 2008).

SiMaDes-II Worskhop (ILL, Grenoble, 31 Jan–1 Feb 2008).

Total scattering PDF analysis using X-rays and neutrons: powder diffraction and complementary techniques (ESRF, Grenoble, 22–23 Oct 2007) – I chaired a session.

SKIN (Studying Kinetics with Neutrons) 2007 (Göttingen, 27–28 Sept 2007).

LAUE 2007 (Institut Laue-Langevin, 24–26 Jan 2007).

ILL Scientists’ Outing (Vogüé, 22–24 Oct 2006).

ILL Away Days (Pralognan, 2–4 Oct 2005).

Polymorphism in Liquid and Amorphous Matter (POLIMAT) (Grenoble, 7–9 July 2004).

Journées Soleil Région Centre 3 (JSRC-3) (Orléans, 31 Mar–1 Apr 2003).

LURE Users Meeting (Orsay, 6–7 June 2002).

11èmes Journées de la Neutronique (JDN11) (Presqu'île de Giens, 26–31 May 2002).

Colloque des 20 ans du réacteur Orphée au LLB (Saclay, 1 Mar 2001).

LURE Users Meeting (Orsay, 18–19 Jan 2001).

TRESSES: Table Ronde sur l'ESS (European Spallation Source) – Evaluation Stratégique (St. Rémy-lès-Chevreuse, 15–17 Jan 2001).

Journées Soleil Région Centre 1 (JSRC-1) (Orléans, 18–20 Dec 2000).

Workshop on the Structure and Dynamics of the Liquid and Glassy States: X-ray and Complementary Methods (Grenoble, 22–23 May 2000).

Colloque Utilisateurs LURE 99 (Orsay, 9–10 Dec 1999).

17th general conference of the Condensed Matter Division of the European Physical Society and les 6èmes Journées de la Matière Condensée de la Société Française de Physique (CMD 17 - JMC 6) (Grenoble, 25–29 Aug 1998).

IX International Conference on Small Angle Scattering (Saclay, 27–30 Apr 1993).

HTC3 (Montréal, May 1990).

35th National Symposium of the American Vacuum Society (Atlanta, GA, 3–7 Oct 1988).

NATO Advanced Study Institute on Microelectronic Materials and Processes (Il Ciocco, Castelvecchio Pascoli, Italy, 30 June – 11 July 1986).

Fifth International Conference on Phonon Scattering in Condensed Matter (University of Illinois at Urbana-Champaign, Urbana, IL, 2–6 June 1986).

“The physical properties and applications of glass” – 52nd semiannual symposium au Spring Meeting of the New York State section of the American Physical Society (Corning, NY, 19–20 Apr, 1985).