

# Michael Marek Koza

## List of Publications by Year in descending order

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165  
papers

4,561  
citations

76326

40  
h-index

133252

59  
g-index

168  
all docs

168  
docs citations

168  
times ranked

5140  
citing authors



#	ARTICLE	IF	CITATIONS
19	Dynamics of a family of cyan fluorescent proteins probed by incoherent neutron scattering. Journal of the Royal Society Interface, 2019, 16, 20180848.	3.4	4
20	Magnetoelastic hybrid excitations in CeAuAl <sub>3</sub> . Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6695-6700.	7.1	29
21	Quantum Dynamics of H <sub>2</sub> and D <sub>2</sub> Confined in Hydrate Structures as a Function of Pressure and Temperature. Journal of Physical Chemistry C, 2019, 123, 1888-1903.	3.1	12
22	Role of the doping level in localized proton motions in acceptor-doped barium zirconate proton conductors. Physical Chemistry Chemical Physics, 2018, 20, 13697-13704.	2.8	23
23	Absence of a long-range ordered magnetic ground state in Pr <sub>3</sub> Rh <sub>4</sub> Sn <sub>13</sub> studied through specific heat and inelastic neutron scattering. Journal of Physics Condensed Matter, 2018, 30, 145601.	1.8	4
24	Proton jump diffusion dynamics in hydrated barium zirconates studied by high-resolution neutron backscattering spectroscopy. Journal of Materials Chemistry A, 2018, 6, 7538-7546.	10.3	19
25	Dipolar Spin Ice States with a Fast Monopole Hopping Rate in $\text{CdEr}_2$		

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37	Charge density wave quantum critical point with strong enhancement of superconductivity. Nature Physics, 2017, 13, 967-972.	16.7	70
38	Dynamics of human acetylcholinesterase bound to non-covalent and covalent inhibitors shedding light on changes to the water network structure. Physical Chemistry Chemical Physics, 2016, 18, 12992-13001.	2.8	30
39	Proton Dynamics in Hydrated BaZr <sub>0.9</sub> M <sub>0.1</sub> O <sub>2.95</sub> (M = Ti, Ta, Nb) Oxides. Physical Review Letters, 2016, 116, 107401.	3.1	16
40	Nickel self-diffusion in a liquid and undercooled NiSi alloy. Physical Review B, 2016, 94, .	3.2	10
41	Dynamical Crossover in Hot Dense Water: The Hydrogen Bond Role. Journal of Physical Chemistry B, 2016, 120, 9051-9059.	2.6	20
42	Lattice dynamics and thermoelectric properties of nanocrystalline silicon-germanium alloys. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 515-523.	1.8	8
43	Influence of packing density and viscosity on the growth of dynamic heterogeneity while cooling metallic melts. Applied Physics Letters, 2016, 109, 051903.	3.3	3
44	Direct comparison of elastic incoherent neutron scattering experiments with molecular dynamics simulations of DMPC phase transitions. European Physical Journal E, 2016, 39, 48.	1.6	20
45	Contrasting effect of La substitution on the magnetic moment direction in the Kondo semiconductors CeTAl <sub>10</sub> (T=Ru,Os). Physical Review B, 2015, 92, .	3.2	9
46	Simple view of the Mg spectrum: Sn resonances and mean field. Physical Review B, 2015, 91, .	3.2	10
47	Muon spin rotation and neutron scattering study of the noncentrosymmetric tetragonal compound CeAuAl <sub>3</sub> . Physical Review B, 2015, 91, .	3.2	19
48	Ferromagnetic fluctuations in YbNi <sub>4</sub> P <sub>2</sub> measured by inelastic neutron scattering. Journal of Physics: Conference Series, 2015, 592, 012083.	0.4	5
49	From crystal to glass-like thermal conductivity in crystalline minerals. Physical Chemistry Chemical Physics, 2015, 17, 19751-19758.	2.8	96
50	Inelastic neutron scattering study of the lattice dynamics in the clathrate compound BaGe <sub>5</sub> . Journal of Physics Condensed Matter, 2015, 27, 485401.	1.8	6
51	On the microscopic dynamics of the "Einstein solids" AlV <sub>2</sub> Al <sub>20</sub> and GaV <sub>2</sub> Al <sub>20</sub> , and of YV <sub>2</sub> Al <sub>20</sub> : a benchmark system for "rattling" excitations. Physical Chemistry Chemical Physics, 2015, 17, 24837-24850.	2.8	14
52	Determination of Conformational Entropy of Fully and Partially Folded Conformations of Holo- and Apomyoglobin. Journal of Physical Chemistry B, 2015, 119, 72-82.	2.6	25
53	Diffusion of CH <sub>4</sub> in ZIF-8 Studied by Quasi-Elastic Neutron Scattering. Journal of Physical Chemistry C, 2015, 119, 16115-16120.	3.1	30
54	Atomic caging in multicomponent glass-forming metallic liquids. Europhysics Letters, 2015, 110, 46001.	2.0	4

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55	Low-energy phonon dispersion in $\text{LaFePO}_4$ . Physical Review B, 2015, 91, .	3.2	14
56	Origin of the highly anisotropic thermal expansion of the semiconducting ZnSb and relations with its thermoelectric applications. RSC Advances, 2015, 5, 87118-87131.	3.6	10
57	Dynamics of the Peripheral Membrane Protein P2 from Human Myelin Measured by Neutron Scattering – A Comparison between Wild-Type Protein and a Hinge Mutant. PLoS ONE, 2015, 10, e0128954.	2.5	17
58	Effect of the electropositive elements A = Sc, La, and Ce on the microscopic dynamics of $\text{AV}_2\text{Al}_{20}$ . Physical Chemistry Chemical Physics, 2014, 16, 27119-27133.	2.8	23
59	Liquid 1-propanol studied by neutron scattering, near-infrared, and dielectric spectroscopy. Journal of Chemical Physics, 2014, 140, 124501.	3.0	68
60	Lattice dynamics in intermetallic $\text{Mg}_2\text{Ge}$ and $\text{Mg}_2\text{Si}$ . Journal of Physics Condensed Matter, 2014, 26, 485401.	1.8	15
61	QENS-WINS, Autrans, May 11–16, 2014. Neutron News, 2014, 25, 14-15. Vibrational dynamics of the filled skutterudite $\text{Yb}_{1-x}\text{Fe}_x\text{Sb}_4$	0.2	0
62	Correlation of the dynamics of native human acetylcholinesterase and its inhibited huperzine A counterpart from sub-picoseconds to nanoseconds. Journal of the Royal Society Interface, 2014, 11, 20140372.	3.2	14
63	Nanocrystalline silicon: lattice dynamics and enhanced thermoelectric properties. Physical Chemistry Chemical Physics, 2014, 16, 25701-25709.	2.8	49
64	Adsorption and Diffusion of Light Hydrocarbons in UiO-66(Zr): A Combination of Experimental and Modeling Tools. Journal of Physical Chemistry C, 2014, 118, 27470-27482.	3.1	84
65	Diffusion of Light Hydrocarbons in the Flexible MIL-53(Cr) Metal-Organic Framework: A Combination of Quasi-Elastic Neutron Scattering Experiments and Molecular Dynamics Simulations. Journal of Physical Chemistry C, 2014, 118, 14471-14477.	3.1	37
66	Novel rattling of K atoms in aluminium-doped defect pyrochlore tungstate. Journal of Physics Condensed Matter, 2014, 26, 305401.	1.8	2
67	The Boson Peak of Amyloid Fibrils: Probing the Softness of Protein Aggregates by Inelastic Neutron Scattering. Journal of Physical Chemistry B, 2014, 118, 2913-2923.	2.6	6
68	Picosecond dynamics in haemoglobin from different species: A quasielastic neutron scattering study. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 2989-2999.	2.4	17
69	In-beam test of the Boron-10 Multi-Grid neutron detector at the IN6 time-of-flight spectrometer at the ILL. Journal of Physics: Conference Series, 2014, 528, 012040.	0.4	21
70	Translational and Rotational Diffusion in Water in the Gigapascal Range. Physical Review Letters, 2013, 111, 185901.	7.8	66
71	Neutron diffraction study of polycrystalline $^4\text{He}$ in a porous medium. JETP Letters, 2013, 98, 233-236.	1.4	0
72			

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73	Effects of impurities on the lattice dynamics of nanocrystalline silicon for thermoelectric application. <i>Journal of Materials Science</i> , 2013, 48, 2836-2845.	3.7	23
74	Static and dynamic structure factor in solid 4 He: Absence of a glassy phase. <i>Europhysics Letters</i> , 2013, 101, 26002.	2.0	2
75	Crystalline electric field splitting in $\text{YbNi}_4\text{P}_2$ measured by inelastic neutron scattering. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 522-524.	1.5	5
76	Diffusion of Binary $\text{CO}_2/\text{CH}_4$ Mixtures in the MIL-47(V) and MIL-53(Cr) Metal-Organic Framework Type Solids: A Combination of Neutron Scattering Measurements and Molecular Dynamics Simulations. <i>Journal of Physical Chemistry C</i> , 2013, 117, 11275-11284.	3.1	51
77	Polymorphic drugs examined with neutron spectroscopy: Is making more stable forms really that simple?. <i>Chemical Physics</i> , 2013, 427, 124-128.	1.9	7
78	Vibrational Dynamics of Filled Skutterudites $\text{LaT}_4\text{X}_{12}$ ( $T = \text{Fe, Co, Ni}$ ) <i>Journal of Applied Physics</i> , 2013, 114, 104301.	1.6	16
79	Neutron scattering and muon spin relaxation measurements of the noncentrosymmetric antiferromagnet $\text{CeCoGe}_3$ . <i>Physical Review B</i> , 2013, 88, 080401.	3.2	49
80	Characteristic energy scales in $\text{CePdAl}$ . <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 468-471.	1.5	6
81	Advanced functionalized materials. <i>Neutron News</i> , 2012, 23, 15-19.	0.2	0
82	Phonons in lanthanum manganite: Inelastic neutron scattering and density functional theory studies. <i>Physical Review B</i> , 2012, 86, .	3.2	2
83	Muon spin relaxation and neutron scattering investigations of the noncentrosymmetric heavy-fermion antiferromagnet $\text{CeRhGe}_3$ . <i>Physical Review B</i> , 2012, 85, .	3.2	43
84	Quasielastic Neutron Scattering Study on the Dynamics of Poly(alkylene oxide)s. <i>Macromolecules</i> , 2012, 45, 4394-4405.	4.8	40
85	Application of Incoherent Inelastic Neutron Scattering in Pharmaceutical Analysis: Relaxation Dynamics in Phenacetin. <i>Molecular Pharmaceutics</i> , 2012, 9, 2434-2441.	4.6	15
86	Evolution of quantum criticality in the system $\text{CeNi}_9\text{Ge}_4$ . <i>Journal of Physics: Conference Series</i> , 2012, 344, 012001.	0.4	5
87	Neutron scattering study of the filled skutterudites $\text{M}_4\text{Sb}_4\text{X}_{12}$ ( $M = \text{Fe, Co, Ni}$ ). <i>Journal of Applied Physics</i> , 2011, 110, 104301.	3.2	33
88	Aerodynamic levitation and laser heating:. <i>European Physical Journal: Special Topics</i> , 2011, 196, 151-165.	2.6	58
89	Antimony-Based Compounds with the Anti-Th <sub>3</sub> P <sub>4</sub> Structure as Potential High-Temperature Thermoelectric Materials. <i>Journal of Electronic Materials</i> , 2011, 40, 1171-1175.	2.2	5
90	Generalized phonon density of states of $\text{Mo}_3\text{Sb}_7$ and $\text{Mo}_7\text{Sb}_3$ . <i>Journal of Applied Physics</i> , 2011, 110, 104301.	3.2	4

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91	Increased molecular mobility in humid silk fibers under tensile stress. Physical Review E, 2011, 83, 016104.	2.1	19
92	Observation of a Superfluid Component within Solid Helium. Physical Review Letters, 2011, 107, 265301.	7.8	11
93	Coexistence of superfluid and solid helium in aerogel. Journal of Experimental and Theoretical Physics, 2010, 111, 215-219.	0.9	2
94	Influence of Doping on Structural and Thermoelectric Properties of AgSbSe <sub>2</sub> . Journal of Electronic Materials, 2010, 39, 2053-2058.	2.2	27
95	Neutron scattering study of water confined in periodic mesoporous organosilicas. Journal of Solid State Chemistry, 2010, 183, 1691-1696.	2.9	3
96	Observation of subtle dynamic transitions by a combination of neutron scattering, X-ray diffraction and DSC: A case study of the monoclinic l-cysteine. Biophysical Chemistry, 2010, 148, 34-41.	2.8	29
97	Crystal field and Kondo-scale investigations of $\text{CeM}_2\text{In}$ $\text{Ce} < \text{M} < \text{M} < \text{In}$	3.2	74
98	Inelastic neutron scattering and frequency-domain magnetic resonance studies of $\text{S}=\text{4}$ and $\text{S}=\text{12Mn6}$ single-molecule magnets. Physical Review B, 2010, 81, .	3.2	21
99	Vibrational dynamics of filled skutterudites $\text{Ce} < \text{M} < \text{M} < \text{In}$		

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109	Breakdown of phonon glass paradigm in La- and Ce-filled Fe <sub>4</sub> Sb <sub>12</sub> skutterudites. Nature Materials, 2008, 7, 805-810.	27.5	299
110	Spin-glass order induced by dynamic frustration. Nature Physics, 2008, 4, 766-770.	16.7	73
111	Liquid Al <sub>80</sub> Cu <sub>20</sub> : Atomic diffusion and viscosity. Applied Physics Letters, 2008, 93, .	3.3	42
112	Crystalline electric field effects in $\text{PrNi}_2\text{B}_2\text{C}$ Inelastic neutron scattering. Physical Review B, 2008, 78, .	3.2	17
113	Vibrational dynamics and phonon dispersion of polycrystalline ice XII and of high-density amorphous ice. Physical Review B, 2008, 77, .	3.2	17
114	Formation and annealing of cubic ice: II. Kinetic study. Journal of Physics Condensed Matter, 2008, 20, 285105.	1.8	53
115	Experimental Evidence Supported by Simulations of a Very High $\text{H}_2$ Diffusion in Metal Organic Framework Materials. Physical Review Letters, 2008, 100, 245901.	7.8	99
116	Vibrational dynamics of amorphous ice structures studied by high-resolution neutron spectroscopy. Physical Review B, 2008, 78, .	3.2	18
117	Vibrational dynamics of very high density amorphous ice studied by high-resolution x-ray spectroscopy. Physical Review B, 2008, 78, .	3.2	13
118	Structure-Property Relationships in the Crystals of the Smallest Amino Acid: An Incoherent Inelastic Neutron Scattering Study of the Glycine Polymorphs. Journal of Physical Chemistry B, 2008, 112, 8748-8759.	2.6	47
119	Formation and annealing of cubic ice: I. Modelling of stacking faults. Journal of Physics Condensed Matter, 2008, 20, 285104.	1.8	71
120	Neutron Scattering on Frustrated Magnets. AIP Conference Proceedings, 2008, , .	0.4	1
121	Charge disproportionation and collinear magnetic order in the frustrated triangular antiferromagnet $\text{AgNiO}_2$ . Physical Review B, 2008, 77, .	3.2	35
122	Phonon density of states, anharmonicity, electron-phonon coupling, and possible multigap superconductivity in the clathrate superconductors $\text{Ba}_8\text{Os}_2$ . Physical Review B, 2008, 77, .	3.2	44
123	Inelastic neutron scattering response in the pyrochlore osmates $\text{A}_2\text{Os}_2$ . Physical Review B, 2008, 78, .	3.2	53
124	Dynamic Singularity in Multicomponent Glass-Forming Metallic Liquids. Physical Review Letters, 2008, 101, 037801.	7.8	45
125	Ternary clathrates $\text{BaZnGe}$ : phase equilibria, crystal chemistry and physical properties. Journal of Physics Condensed Matter, 2007, 19, 216223.	1.8	50
126	Experimental Evidence for a Crossover between Two Distinct Mechanisms of Amorphization in Ice $\text{I}_h$ under Pressure. Physical Review Letters, 2007, 99, 175501.	7.8	38

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127	Clathrate formation in the Ba-Pd-Ge system: Phase equilibria, crystal structure, and physical properties. <i>Physical Review B</i> , 2007, 76, .	3.2	47
128	Probing the phonon density of states in the superconducting Si clathrates from inelastic neutron scattering experiments. <i>Journal of Physics: Conference Series</i> , 2007, 92, 012121.	0.4	5
129	Lattice dynamics of Sr <sub>2</sub> TiO <sub>4</sub> . <i>Journal of Physics: Conference Series</i> , 2007, 92, 012172.	0.4	5
130	Atomic dynamics in liquid KxSb <sub>1-x</sub> alloys. <i>Journal of Non-Crystalline Solids</i> , 2007, 353, 3145-3148.	3.1	5
131	Silkworm Silk under Tensile Strain Investigated by Synchrotron X-ray Diffraction and Neutron Spectroscopy. <i>Macromolecules</i> , 2007, 40, 1035-1042.	4.8	44
132	Multi-step magnetic ordering in frustrated thiospinel MnSc <sub>2</sub> S <sub>4</sub> . <i>Journal of Physics Condensed Matter</i> , 2007, 19, 145262.	1.8	6
133	Magnetic dynamics of the spin-glass system PrAu <sub>2</sub> Si <sub>2</sub> : An inelastic neutron scattering study. <i>Journal of Magnetism and Magnetic Materials</i> , 2007, 310, 1535-1536.	2.3	8
134	On the heterogeneous character of water's amorphous polymorphism. <i>Journal of Applied Crystallography</i> , 2007, 40, s517-s521.	4.5	27
135	Surface excitations in liquid helium nanofilms. <i>Crystallography Reports</i> , 2007, 52, 466-470.	0.6	1
136	Dynamics of argon in confined geometry. <i>European Physical Journal: Special Topics</i> , 2007, 141, 117-120.	2.6	2
137	Dynamics of La and Ce filled xFe <sub>4</sub> Sb <sub>12</sub> skutterudite structures. , 2006, , .		1
138	Temperature dependence of the low-energy crystal field excitation in PrOs <sub>4</sub> Sb <sub>12</sub> : effect of the energy gap. <i>Physica B: Condensed Matter</i> , 2006, 378-380, 58-59.	2.7	3
139	Unusual non-Fermi liquid behavior in. <i>Physica B: Condensed Matter</i> , 2006, 378-380, 640-643.	2.7	13
140	Coexistence of ferromagnetic and antiferromagnetic spin correlations in La <sub>1.2</sub> Sr <sub>1.8</sub> Mn <sub>2</sub> O <sub>7</sub> . <i>Physical Review B</i> , 2006, 73, .	3.2	6
141	Magnetic ordering and spin excitations in the frustrated magnet MnSc <sub>2</sub> S <sub>4</sub> . <i>Physical Review B</i> , 2006, 73, .	3.2	47
142	Formation of channels for fast-ion diffusion in alkali silicate melts: A quasielastic neutron scattering study. <i>Physical Review B</i> , 2006, 74, .	3.2	40
143	Vibronic and Magnetic Excitations in the Spin-Orbital Liquid State of FeSc <sub>2</sub> S <sub>4</sub> . <i>Physical Review Letters</i> , 2005, 94, 237402.	7.8	72
144	Nature of Amorphous Polymorphism of Water. <i>Physical Review Letters</i> , 2005, 94, 125506.	7.8	66

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145	Absence of molecular mobility on nano-second time scales in amorphous ice phases. <i>Physical Chemistry Chemical Physics</i> , 2005, 7, 1423.	2.8	29
146	Experimental determination of the phonon density of states in filled skutterudites: evidence for a localized mode of the filling atom. <i>Physical Chemistry Chemical Physics</i> , 2005, 7, 1617.	2.8	19
147	Nanofibrillar Structure and Molecular Mobility in Spider Dragline Silk. <i>Macromolecules</i> , 2005, 38, 8447-8453.	4.8	73
148	Influence of chemical short-range order on atomic diffusion in Al <sub>1-x</sub> Ni melts. <i>Applied Physics Letters</i> , 2005, 86, 011918.	3.3	108
149	Evidence for two distinct spin relaxation mechanisms in $\text{Ho}_2\text{Ti}_2\text{O}_7$ spin ice. <i>Journal of Physics Condensed Matter</i> , 2004, 16, S635-S642.	1.8	71
150	Inelastic neutron scattering experiments on antimony-based filled skutterudites. <i>Physica B: Condensed Matter</i> , 2004, 350, E403-E405.	2.7	15
151	Field-induced quantum phase transition in the quasi 1D XY-like antiferromagnet Cs <sub>2</sub> CoCl <sub>4</sub> . <i>Journal of Magnetism and Magnetic Materials</i> , 2004, 272-276, 920-921.	2.3	12
152	Absence of fast precursor dynamics of low-density amorphous ice around its hypothetical glass transition temperature. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 677.	2.8	12
153	Crystalline inelastic response of high-density amorphous ice. <i>Physical Review B</i> , 2004, 69, .	3.2	31
154	Atomic diffusion in liquid Ni, NiP, PdNiP, and PdNiCuP alloys. <i>Applied Physics Letters</i> , 2004, 85, 4881-4883.	3.3	82
155	Editorial. <i>European Physical Journal E</i> , 2003, 12, 3-4.	1.6	19
156	Fast diffusion in ZrTiCuNiBe melts. <i>Applied Physics Letters</i> , 2003, 83, 3894-3896.	3.3	61
157	Kinetics of the high- to low-density amorphous water transition. <i>Journal of Physics Condensed Matter</i> , 2003, 15, 321-332.	1.8	82
158	Strong Renormalization of Phonon Frequencies in Mg <sub>1-x</sub> Al <sub>x</sub> B <sub>2</sub> . <i>Physical Review Letters</i> , 2002, 88, 067001.	7.8	96
159	Anharmonicity and guest-host coupling in clathrate hydrates. <i>Physical Chemistry Chemical Physics</i> , 2002, 4, 4809-4816.	2.8	48
160	Method of analysis of multiphonon and multiple-scattering effects in inelastic neutron scattering experiments. <i>Applied Physics A: Materials Science and Processing</i> , 2002, 74, s166-s168.	2.3	0
161	Intercalation of molecular gases into C <sub>60</sub> . <i>Physical Review B</i> , 2001, 64, .	3.2	12
162	Ice XII in Its Second Regime of Metastability. <i>Physical Review Letters</i> , 2000, 84, 4112-4115.	7.8	62

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163	Crystal-like High Frequency Phonons in the Amorphous Phases of Solid Water. Physical Review Letters, 2000, 85, 4100-4103.	7.8	74
164	Formation of ice XII at different conditions. Nature, 1999, 397, 660-661.	27.8	92
165	Amorphous polymorphs in ice investigated by inelastic neutron scattering. Physica B: Condensed Matter, 1997, 241-243, 897-902.	2.7	30