

# Klaudia Hradil

## List of Publications by Year in descending order

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91  
papers

1,865  
citations

279798

23  
h-index

265206

42  
g-index

91  
all docs

91  
docs citations

91  
times ranked

2227  
citing authors

#	ARTICLE	IF	CITATIONS
1	Normal-state spin dynamics and temperature-dependent spin-resonance energy in optimally doped BaFe <sub>1.85</sub> Co <sub>0.15</sub> As <sub>2</sub> . <i>Nature Physics</i> , 2010, 6, 178-181.	16.7	335
2	Magnetic Excitations in Multiferroic TbMnO <sub>3</sub> : Evidence for a Hybridized Soft Mode. <i>Physical Review Letters</i> , 2007, 98, 137206.	7.8	128
3	Symmetry of spin excitation spectra in the tetragonal paramagnetic and superconducting phases of 122-ferropnictides. <i>Physical Review B</i> , 2010, 82, .	3.2	114
4	Hidden magnetic excitation in the pseudogap phase of a high-T <sub>c</sub> superconductor. <i>Nature</i> , 2010, 468, 283-285.	27.8	110
5	Thermopower enhancement by encapsulating cerium in clathrate cages. <i>Nature Materials</i> , 2013, 12, 1096-1101.	27.5	78
6	A new diffractometer for materials science and imaging at HASYLAB beamline G3. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1999, 428, 570-582.	1.6	61
7	Magnetic excitations in a cycloidal magnet: the magnon spectrum of multiferroic TbMnO <sub>3</sub> . <i>Journal of Physics Condensed Matter</i> , 2008, 20, 434212.	1.8	56
8	Incommensurate Magnetic Order and Dynamics Induced by Spinless Impurities in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> . <i>Physical Review Letters</i> , 2010, 105, 037207.	3.2	46
9	Incommensurate Magnetic Order and Dynamics Induced by Spinless Impurities in SrBi <sub>2</sub> Ca <sub>2</sub> O <sub>8</sub> . <i>Physical Review B</i> , 2007, 76, .	3.2	46
10	The role of niobium in improving toughness and corrosion resistance of high speed steel laser hardfacings. <i>Materials and Design</i> , 2016, 99, 509-520.	7.0	40
11	Investigation of nanocrystalline CdS "glutathione particles by radial distribution function. <i>Journal of Applied Crystallography</i> , 2003, 36, 1389-1396.	4.5	38
12	Direct Observation of the Superconducting Gap in Phonon Spectra. <i>Physical Review Letters</i> , 2008, 101, 237002.	7.8	38
13	Observation of phasons in the magnetic shape memory alloy Ni <sub>2</sub> MnGa. <i>Europhysics Letters</i> , 2007, 77, 56004.	2.0	37
14	Highly Anisotropic Anomaly in the Dispersion of the Copper-Oxygen Bond-Bending Phonon in Superconducting YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> from Inelastic Neutron Scattering. <i>Physical Review Letters</i> , 2011, 107, 177004.	3.2	46
15	Multi-scale characterisation of a ferroelectric polymer reveals the emergence of a morphological phase transition driven by temperature. <i>Nature Communications</i> , 2021, 12, 152.	12.8	34
16	Magnetic resonance in the model high-temperature superconductor HgBa <sub>2</sub> CuO <sub>4</sub> +δ. <i>Physical Review B</i> , 2010, 81, .	3.2	33
17	Inelastic neutron scattering study of the dynamics of the AlNiCo decagonal phase. <i>European Physical Journal B</i> , 1999, 7, 513-516.	1.5	31
18	Epitaxial YBa <sub>2</sub> Cu <sub>3</sub> O <sub>x</sub> thin films on sapphire using a Y <sub>2</sub> O <sub>3</sub> -stabilized ZrO <sub>2</sub> buffer layer. <i>Applied Physics Letters</i> , 1991, 59, 222-224.	3.3	29

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19	Two Ising-like magnetic excitations in a single-layer cuprate superconductor. <i>Nature Physics</i> , 2012, 8, 404-410.	16.7	28
20	New insights into the manufacturing technique and corrosion of high leaded antique bronze coins. <i>Microchemical Journal</i> , 2016, 126, 181-193.	4.5	28
21	Interplay of structural instability and lattice dynamics in $\text{Ni}_2\text{V}_2\text{O}_7$ . <i>Physical Review B</i> , 2008, 78, .	3.2	27
22	Magnetic Soft Modes in the Distorted Triangular Antiferromagnet $\text{CaCr}_2\text{O}_4$ . <i>Physical Review Letters</i> , 2012, 109, 127203.	7.8	26
23	Electron-Phonon Coupling in the Conventional Superconductor $\text{YNi}_2\text{B}_2\text{C}$ at High Phonon Energies Studied by Time-of-Flight Neutron Spectroscopy. <i>Physical Review Letters</i> , 2012, 109, 057001.	7.8	25
24	Effect of temperature and compositional changes on the phonon properties of Ni-Mn-Ga shape memory alloys. <i>Physical Review B</i> , 2012, 86, .	3.2	21
25	Phonons and electron-phonon coupling in $\text{YNi}_2\text{B}_2\text{C}$ . <i>Physical Review B</i> , 2014, 89, .	3.2	20
26	Phonon Lifetimes throughout the Brillouin Zone at Elevated Temperatures from Experiment and $\text{AbInitio}$ . <i>Physical Review Letters</i> , 2019, 123, 235501.	7.8	20
27	Interface analysis of epitaxial $\text{YBa}_2\text{Cu}_3\text{O}_7$ thin films deposited on sapphire ( $\text{Al}_2\text{O}_3$ ) with YSZ buffer layers. <i>Physica C: Superconductivity and Its Applications</i> , 1991, 177, 89-94.	1.2	19
28	Cycle Stability and Hydration Behavior of Magnesium Oxide and Its Dependence on the Precursor-Related Particle Morphology. <i>Nanomaterials</i> , 2018, 8, 795.	4.1	19
29	RF-magnetron sputtered lanthanum aluminate buffer layers on silicon. <i>Superconductor Science and Technology</i> , 1991, 4, 371-373.	3.5	17
30	X-ray diffuse scattering in the decagonal phases $\text{Al}_{70}\text{Ni}_{15}\text{Co}_{15}$ , $\text{Al}_{72.5}\text{Ni}_{11}\text{Co}_{16.5}$ and $\text{Al}_{62}\text{Cu}_{20}\text{Co}_{15}\text{Si}_3$ up to 1150K. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1995, 71, 955-966.	0.6	17
31	On the one-dimensional 8 Å... periodic superstructure in decagonal phases. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2000, 80, 2375-2391.	0.6	16
32	Diffuse scattering of decagonal $\text{Al}_{70}\text{Ni}_{15}\text{Co}_{15}$ measured with synchrotron radiation. <i>Philosophical Magazine Letters</i> , 1995, 71, 199-205.	1.2	15
33	Tuning the performance of MgO for thermochemical energy storage by dehydration "From fundamentals to phase impurities. <i>Applied Energy</i> , 2019, 253, 113562.	10.1	15
34	Wet chemical porosification of LTCC in phosphoric acid: Anorthite forming tapes. <i>Journal of the European Ceramic Society</i> , 2015, 35, 4181-4188.	5.7	14
35	Flexoelectricity in polycrystalline $\text{TiO}_2$ thin films. <i>Acta Materialia</i> , 2020, 190, 124-129.	7.9	14
36	Canted antiferromagnetism in phase-pure $\text{CuMnSb}$ . <i>Physical Review Materials</i> , 2018, 2, .	2.4	14



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55	Magnetic excitations of the charge stripe electrons below half doping in $\text{La}_{2-x}\text{Sr}_x\text{NiO}_4$ ( $x=0.45, 0.4$ ). <i>Physical Review B</i> , 2017, 95, .	3.2	6
56	Enhanced c-axis orientation of aluminum nitride thin films by plasma-based pre-conditioning of sapphire substrates for SAW applications. <i>Applied Surface Science</i> , 2018, 435, 432-437.	6.1	6
57	Transient ordering states in decagonal Al-Co-Ni and Al-Cu-Co-Si phases. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2001, 81, 2375-2389.	0.6	5
58	Investigations of $\text{Cd}_{1-x}\text{Mn}_x\text{Te}$ crystals by means of ellipsometry and Auger electron spectroscopy. <i>Applied Surface Science</i> , 2003, 212-213, 110-115.	6.1	5
59	Cooperativity in spin crossover materials as ligand's responsibility – investigations of the $\text{Fe}(\text{1,3-bis}((1\text{-H-tetrazol-1-yl)methyl)\text{bicyclo}[1.1.1]\text{pentane})_2$ system. <i>Dalton Transactions</i> , 2018, 47, 5553-5557.	3.3	5
60	Phonon dispersions of $\text{Ni-Mn-Al}$ shape memory alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 481-482, 197-200.	5.6	4
61	Single crystal neutron diffraction of decagonal $\text{Al}_{72.5}\text{Co}_{11}\text{Ni}_{16.5}$ . <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 1997, 212, 89-94.	0.8	4
62	Sputtered $\text{YBa}_2\text{Cu}_3\text{O}_y$ thin films on sapphire and silicon substrates using yttria stabilized $\text{ZrO}_2$ buffer layers. <i>Physica C: Superconductivity and Its Applications</i> , 1991, 180, 34-37.	1.2	3
63	High resolution X-ray and neutron diffraction of super- and disorder in decagonal $\text{Al-Co-Ni}$ . <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000, 294-296, 308-314.	5.6	3
64	Development of the magnetic excitations of charge-stripe ordered $\text{La}_{2-x}\text{Sr}_x\text{NiO}_4$ on doping towards checkerboard charge order. <i>Journal of the Korean Physical Society</i> , 2013, 62, 1453-1457.	0.7	3
65	Neutron and X-ray investigation of disordered quasicrystals. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000, 294-296, 303-307.	5.6	2
66	Investigation of the local structure of nanosized CdS crystals stabilized with glutathione by the radial distribution function method. <i>Journal of Structural Chemistry</i> , 2004, 45, 427-436.	1.0	2
67	Phonon line shapes in the vortex state of the phonon-mediated superconductor $\text{YNi}_2\text{B}_2\text{C}$ . <i>Physical Review B</i> , 2012, 85, .	3.2	2
68	Transient ordering states in decagonal $\text{Al-Co-Ni}$ at temperatures up to $1000^\circ\text{C}$ . <i>Journal of Alloys and Compounds</i> , 2002, 342, 92-95.	5.5	1
69	Neutron resonance spin echo spectroscopy on split modes. <i>Journal of Physics: Conference Series</i> , 2010, 211, 012028.	0.4	1
70	Phonon-lifetimes in demixing systems. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 255401.	1.8	1
71	Refitting an X-ray diffraction system for combined GIXRF and XRR measurements. <i>Powder Diffraction</i> , 2020, 35, S29-S33.	0.2	1
72	Diffuse neutron scattering study of disordered $\text{Al}_{72}\text{Co}_{16}\text{Ni}_{12}$ quasicrystals up to $1000^\circ\text{C}$ . <i>Applied Physics A: Materials Science and Processing</i> , 2002, 74, s998-s1000.	2.3	0

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73	Monitoring and preventing collisions for a triple axis spectrometer. , 2006, , .		0
74	Modification of modulated structures and nanodomains in (A)2ZnCl4mixed crystals. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s58-s58.	0.3	0
75	Peculiarities of temperature dependent ion beam sputtering and channeling of crystalline bismuth. Nanotechnology, 2014, 25, 305302.	2.6	0
76	Analysis of short-range phenomena in two novel materials using the PDF method. Acta Crystallographica Section A: Foundations and Advances, 2015, 71, s390-s390.	0.1	0
77	Thermochemical Energy Storage: Calcium Doping Facilitates Water Dissociation in Magnesium Oxide (Adv. Sustainable Syst. 1/2018). Advanced Sustainable Systems, 2018, 2, 1870004.	5.3	0
78	X-ray and neutron diffuse scattering of decagonal quasicrystals at temperatures up to 1000Å°C. Acta Crystallographica Section A: Foundations and Advances, 2002, 58, c17-c17.	0.3	0
79	Temperature dependence of the 8A superstructure in decagonal Al-Co-Ni phases. Acta Crystallographica Section A: Foundations and Advances, 2002, 58, c183-c183.	0.3	0
80	Monitoring and Preventing collisions for a triple axis Spectrometer. , 2006, , .		0
81	Kinetics of solid-state reactions/transitions investigated by real-time neutron spectroscopy. Acta Crystallographica Section A: Foundations and Advances, 2009, 65, s80-s80.	0.3	0
82	Domain redistribution in SrTiO3. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s175-s176.	0.3	0
83	RÅntgenographische Analyse von Restaustenit-Gehalten an pulvermetallurgisch hergestellten StÄhlen*. HTM - Journal of Heat Treatment and Materials, 2013, 68, 267-273.	0.2	0
84	Das RÅntgenzentrum " X-Ray Center (XRC) Der Tu Wien. , 2015, , 83-86.		0
85	Analysis of short-range phenomena in novel materials using the PDF method. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s427-s427.	0.1	0
86	ÅµXRD for the identification of pigments in cross-sections of paintings. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C1405-C1405.	0.1	0
87	In situ and time-lapse XRD as tools for atmospheric corrosion research. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C1253-C1253.	0.1	0
88	In situ and time-lapse XRD as tools for atmospheric corrosion research. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C1406-C1406.	0.1	0
89	ÅµXRD for the identification of pigments in cross-sections of paintings. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C1346-C1346.	0.1	0
90	Analysis of short-range phenomena in novel materials using the PDF method. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, e141-e141.	0.1	0

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91	Establishment of a high-capacity X-ray source in Austria for use in materials science. Acta Crystallographica Section A: Foundations and Advances, 2019, 75, e730-e730.	0.1	0