C M Hoffmann

List of Publications by Year
in descending order

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57	1,930	236925 25	254184 43
papers	citations	h-index	g-index

65	65	65	3329
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Operando single crystal neutron diffraction reveals insight into the field response mechanisms in the hydrogen-bonded KH2PO4 ferroelectric. APL Materials, 2021, 9, .	5.1	1
2	Weyl-mediated helical magnetism in NdAlSi. Nature Materials, 2021, 20, 1650-1656.	27.5	48
3	Pseudospin-lattice coupling and electric control of the square-lattice iridate Sr2IrO4. Physical Review B, 2020, 102, .	3.2	7
4	Strong hydrogen bonding in a dense hydrous magnesium silicate discovered by neutron Laue diffraction. IUCrJ, 2020, 7, 370-374.	2.2	6
5	K-space algorithmic reconstruction (KAREN): a robust statistical methodology to separate Bragg and diffuse scattering. Journal of Applied Crystallography, 2020, 53, 159-169.	4.5	7
6	Spectroscopic Studies of the Magnetic Excitation and Spinâ€Phonon Couplings in a Singleâ€Molecule Magnet. Chemistry - A European Journal, 2019, 25, 15846-15857.	3.3	22
7	Thermodynamic and kinetic studies of H₂ and N₂ binding to bimetallic nickel-group 13 complexes and neutron structure of a Ni(Î·²-H₂) adduct. Chemical Science, 2019, 10, 7029-7042.	7.4	38
8	Exotic Magnetic Field-Induced Spin-Superstructures in a Mixed Honeycomb-Triangular Lattice System. Physical Review X, 2019, 9, .	8.9	10
9	Comparison of different strategies for modelling hydrogen atoms in charge density analyses. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2019, 75, 434-441.	1.1	17
10	Nonequilibrium orbital transitions via applied electrical current in calcium ruthenates. Physical Review B, 2019, 100, .	3.2	17
11	Probing orientation information using 3-dimensional reciprocal space volume analysis. Review of Scientific Instruments, 2019, 90, 013902.	1.3	5
12	Soft antiphase tilt of oxygen octahedra in the hybrid improper multiferroic <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ca</mml:mi><mml:mn>3</mml:mn></mml: mathvariant="normal">O</mml:mi><mml:mn>7</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2018, 97, .	3.2	27
13	A suite-level review of the neutron single-crystal diffraction instruments at Oak Ridge National Laboratory. Review of Scientific Instruments, 2018, 89, 092802.	1.3	43
14	Determination of hydrogen site and occupancy in hydrous Mg₂SiO₄ spinel by single-crystal neutron diffraction. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2018, 74, 115-120.	1.1	11
15	Next-generation diamond cell and applications to single-crystal neutron diffraction. Review of Scientific Instruments, 2018, 89, 092902.	1.3	20
16	Time filtering of event based neutron scattering data: A pathway to study the dynamic structural responses of materials. Review of Scientific Instruments, 2018, 89, 092803.	1.3	6
17	From the source: student-centred guest lecturing in a chemical crystallography class. Journal of Applied Crystallography, 2018, 51, 909-914.	4.5	9
18	Fast Rotational Diffusion of Water Molecules in a 2D Hydrogen Bond Network at Cryogenic Temperatures. Physical Review Letters, 2018, 120, 196001.	7.8	10

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19	Single crystal growth of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">u</mml:mi><mml:mn>4</mml:mn></mml:msub><mml:msub><mml:mrow><mml:mo>(</mml:mo><mml:mi>OH</mml:mi> and universal behavior in quantum spin liquid candidates synthetic barlowite and herbertsmithite. Physical Review Materials, 2018, 2, .	2.4	31
20	Neutron and X-ray investigations of the Jahnâ€“Teller switch in partially deuterated ammonium copper Tutton salt, (NH₄)₂[Cu(H₂O)₆](SO₄)₂. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2017, 73, 87-93.	1.1	3
21	The neutron diffraction structure of [Ir4(IMe)8H10]2+ polyhydride cluster: Testing the computational hydride positional assignments. Journal of Organometallic Chemistry, 2017, 849-850, 17-21.	1.8	8
22	Self-assembly of molecular ions via like-charge ion interactions and through-space defined organic domains. Chemical Communications, 2017, 53, 10934-10937.	4.1	19
23	Spin density in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>YTiO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml: : I. Joint refinement of polarized neutron diffraction and magnetic x-ray diffraction data leading to insights into orbital ordering. Physical Review B, 2017, 96, .	3.2	20
24	Expanding Lorentz and spectrum corrections to large volumes of reciprocal space for single-crystal time-of-flight neutron diffraction. Journal of Applied Crystallography, 2016, 49, 497-506.	4.5	34
25	Quantitative analysis of hydrogen sites and occupancy in deep mantle hydrous wadsleyite using single crystal neutron diffraction. Scientific Reports, 2016, 6, 34988.	3.3	21
26	On the Chemistry and Physical Properties of Flux and Floating Zone Grown SmB6 Single Crystals. Scientific Reports, 2016, 6, 20860.	3.3	38
27	Solution ³¹P NMR Study of the Acid-Catalyzed Formation of a Highly Charged {U₂₄Pp₁₂} Nanocluster, [(UO₂)₂₄(O₂)₂₄(P₂O₇)₁₂]³⁶⁻, and Its Structural Characterization in the Solid State Using Single-Crystal Neutron Diffraction. Journal of the American Chemical Society, 2016, 138, 8547-8553.	13.7	36
28	Ferroelectric Materials: Nanoscale Atomic Displacements Ordering for Enhanced Piezoelectric Properties in Lead-Free ABO3Ferroelectrics (Adv. Mater. 29/2015). Advanced Materials, 2015, 27, 4329-4329.	21.0	0
29	Microdomain dynamics in single-crystal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>BaTi</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> during paraelectric-ferroelectric phase transition measured with time-of-flight neutron scattering. Physical Review B, 2015, 92, .	3.2	32
30	Structure symmetry determination and magnetic evolution inSr2Ir1â¯xRhxO4. Physical Review B, 2015, 92, .	3.2	42
31	Nanoscale Atomic Displacements Ordering for Enhanced Piezoelectric Properties in Leadâ€Free ABO₃ Ferroelectrics. Advanced Materials, 2015, 27, 4330-4335.	21.0	8
32	Quantitative analysis of intermolecular interactions in orthorhombic rubrene. IUCrJ, 2015, 2, 563-574.	2.2	206
33	Anharmonicity and atomic distribution of SnTe and PbTe thermoelectrics. Physical Review B, 2014, 90, .	3.2	64
34	Accurate atomic displacement parameters from time-of-flight neutron-diffraction data at TOPAZ. Acta Crystallographica Section A: Foundations and Advances, 2014, 70, 679-681.	0.1	12
35	Heterolytic Cleavage of Hydrogen by an Iron Hydrogenase Model: An Feâ€Hâ‹…â‹…â‹…Hâ€N Dihydrogen Bond Characterized by Neutron Diffraction. Angewandte Chemie - International Edition, 2014, 53, 5300-5304.	13.8	102
36	Frontispiece: Heterolytic Cleavage of Hydrogen by an Iron Hydrogenase Model: An Fe-Hâ‹…â‹…â‹…H-N Dihydrogen Bond Characterized by Neutron Diffraction. Angewandte Chemie - International Edition, 2014, 53, n/a-n/a.	13.8	0

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37	Intermolecular Interactions in Solid-State Metalloporphyrins and Their Impacts on Crystal and Molecular Structures. Inorganic Chemistry, 2014, 53, 11552-11562.	4.0	11
38	Free H₂ Rotation vs Jahnâ€“Teller Constraints in the Nonclassical Trigonal (TPB)Coâ€“H₂ Complex. Journal of the American Chemical Society, 2014, 136, 14998-15009.	13.7	33
39	LiCa₃As₂H and Ca₁₄As₆X₇ (X = C, H, N): Two New Arsenide Hydride Phases Grown from Ca/Li Metal Flux. Inorganic Chemistry, 2014, 53, 10620-10626.	4.0	9
40	Integration of neutron time-of-flight single-crystal Bragg peaks in reciprocal space. Journal of Applied Crystallography, 2014, 47, 915-921.	4.5	82
41	Frontispiz: Heterolytic Cleavage of Hydrogen by an Iron Hydrogenase Model: An Fe-Hâ‹…â‹…â‹…H-N Dihydrogen Bond Characterized by Neutron Diffraction. Angewandte Chemie, 2014, 126, n/a-n/a.	2.0	0
42	Analyzing diffuse scattering with supercomputers. Journal of Applied Crystallography, 2013, 46, 1616-1625.	4.5	12
43	Reciprocal Salt Flux Growth of LiFePO₄ Single Crystals with Controlled Defect Concentrations. Chemistry of Materials, 2013, 25, 4574-4584.	6.7	43
44	Synthesis, Structure, and Physical Properties ofLn(Cu,Al,Ga)13â€“x(Ln= Laâ€“Pr, and Eu) and Eu(Cu,Al)13â€“x. Inorganic Chemistry, 2012, 51, 10193-10202.	4.0	5
45	Structural modulations and magnetic properties of off-stoichiometric Ni-Mn-Ga magnetic shape memory alloys. Physical Review B, 2012, 85, .	3.2	30
46	CrystalPlan: an experiment-planning tool for crystallography. Journal of Applied Crystallography, 2011, 44, 418-423.	4.5	67
47	High-resolution neutron crystallographic studies of the hydration of the coenzyme cob(II)alamin. Acta Crystallographica Section D: Biological Crystallography, 2011, 67, 584-591.	2.5	30
48	Initial testing of a Compact Crystal Positioning System for the TOPAZ Single-Crystal Diffractometer at the Spallation Neutron Source. Journal of Physics: Conference Series, 2010, 251, 012084.	0.4	2
49	The macromolecular neutron diffractometer (MaNDi) at the Spallation Neutron Source, Oak Ridge: enhanced optics design, high-resolution neutron detectors and simulated diffraction. Journal of Applied Crystallography, 2010, 43, 570-577.	4.5	64
50	Synthesis and Structure Characterization of Copper Terephthalate Metalâ€“Organic Frameworks. European Journal of Inorganic Chemistry, 2009, 2009, 2338-2343.	2.0	312
51	Test of a continuously polarized 3He neutron spin filter with NMR-based polarization inversion on a single-crystal diffractometer. Physica B: Condensed Matter, 2006, 385-386, 1131-1133.	2.7	33
52	Continuously operating compact He-based neutron spin filter. Physica B: Condensed Matter, 2005, 356, 86-90.	2.7	17
53	Synthesis and Reactivity of Tethered Î·1:Î·6-(Phosphinoarene)ruthenium Dichlorides. Organometallics, 1998, 17, 330-337.	2.3	86
54	Clinotobermorite, Ca₅[Si₃O₈(OH)]₂ Â· 4 H₂O p=n- Ca₅[Si₆O₁₇] Â· 5 H₂O, a natural Cp=n-Sp=n-H(I) type cement mineral: determination of the substructure. Zeitschrift Fur Kristallographie - Crystalline Materials, 1997, 212, 864-873.	0.8	41

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55	Orthorhombic Jahn-Teller distortion and Si-OH in mozartite, CaMn (super 3+) O[SiO₃OH]; a single-crystal X-ray, FTIR, and structure modeling study. American Mineralogist, 1997, 82, 841-848.	1.9	29
56	4,4'-Dinitro-2,2'-bipyridine. Acta Crystallographica Section C: Crystal Structure Communications, 1997, 53, 1719-1721.	0.4	4
57	Crystal chemistry and optics of bazzite from Furkabasistunnel (Switzerland). Mineralogy and Petrology, 1995, 52, 113-126.	1.1	24