

Simon A J Kimber

List of Publications by Year in descending order

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63
papers

3,782
citations

159525

30
h-index

123376

61
g-index

67
all docs

67
docs citations

67
times ranked

5594
citing authors

#	ARTICLE	IF	CITATIONS
1	Real-time and in situ monitoring of mechanochemical milling reactions. <i>Nature Chemistry</i> , 2013, 5, 66-73.	6.6	493
2	In situ X-ray diffraction monitoring of a mechanochemical reaction reveals a unique topology metal-organic framework. <i>Nature Communications</i> , 2015, 6, 6662.	5.8	294
3	Similarities between structural distortions under pressure and chemical doping in superconducting BaFe ₂ As ₂ . <i>Nature Materials</i> , 2009, 8, 471-475.	13.3	266
4	From (√2,0) magnetic order to superconductivity with (√2,√2) magnetic resonance in Fe _{1.02} Te _{1-x} Sex. <i>Nature Materials</i> , 2010, 9, 718-720.	13.3	248
5	<i>In Situ</i> Monitoring and Mechanism of the Mechanochemical Formation of a Microporous MOF-74 Framework. <i>Journal of the American Chemical Society</i> , 2016, 138, 2929-2932.	6.6	194
6	Universal solvent restructuring induced by colloidal nanoparticles. <i>Science</i> , 2015, 347, 292-294.	6.0	172
7	Magnetic structure of the quasi-two-dimensional antiferromagnet NiPS ₃ . <i>Physical Review B</i> , 2015, 92, .	4.6	166
8	Lattice collapse and quenching of magnetism in CaFe ₂ As ₂ under pressure: A single-crystal neutron and x-ray diffraction investigation. <i>Physical Review B</i> , 2009, 79, .	1.1	164
9	Real-time In-situ Powder X-ray Diffraction Monitoring of Mechanochemical Synthesis of Pharmaceutical Cocrystals. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 11538-11541.	7.2	141
10	In situ and real-time monitoring of mechanochemical milling reactions using synchrotron X-ray diffraction. <i>Nature Protocols</i> , 2013, 8, 1718-1729.	5.5	132
11	Pair distribution function computed tomography. <i>Nature Communications</i> , 2013, 4, 2536.	5.8	96
12	Magnetic ordering and negative thermal expansion in PrFeAsO. <i>Physical Review B</i> , 2008, 78, .	1.1	94
13	Valence bond liquid phase in the honeycomb lattice material Li ₂ RuO ₃ . <i>Physical Review B</i> , 2014, 89, .	1.1	92
14	Quasi-Elastic Neutron Scattering Studies on Clay Interlayer-Space Highlighting the Effect of the Cation in Confined Water Dynamics. <i>Journal of Physical Chemistry C</i> , 2008, 112, 13982-13991.	1.5	87
15	ID15A at the ESRF a beamline for high speed <i>operando</i> X-ray diffraction, diffraction tomography and total scattering. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 515-528.	1.0	85
16	Quantitative in situ and real-time monitoring of mechanochemical reactions. <i>Faraday Discussions</i> , 2014, 170, 203-221.	1.6	73
17	Suppression of antiferromagnetic spin fluctuations in the collapsed phase of CaFe ₂ As ₂ . <i>Physical Review B</i> , 2009, 79, .	1.1	61
18	Real-Time Scattering-Contrast Imaging of a Supported Cobalt-Based Catalyst Body during Activation and Fischer-Tropsch Synthesis Revealing Spatial Dependence of Particle Size and Phase on Catalytic Properties. <i>ACS Catalysis</i> , 2017, 7, 2284-2293.	5.5	54

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19	An eigenstrain-based finite element model and the evolution of shot peening residual stresses during fatigue of GW103 magnesium alloy. <i>International Journal of Fatigue</i> , 2012, 42, 284-295.	2.8	51
20	Metal-Insulator Transition and Orbital Order in PbRuO_3 . <i>Physical Review Letters</i> , 2009, 102, 046409.	2.9	50
21	Challenges of Mechanochemistry: Is In Situ Real-Time Quantitative Phase Analysis Always Reliable? A Case Study of Organic Salt Formation. <i>Advanced Science</i> , 2017, 4, 1700132.	5.6	50
22	Co-emergence of magnetic order and structural fluctuations in magnetite. <i>Nature Communications</i> , 2019, 10, 2857.	5.8	43
23	Synthesis of Tetragonal and Orthorhombic Polymorphs of Hf_3N_4 by High-Pressure Annealing of a Prestructural Nanocrystalline Precursor. <i>Journal of the American Chemical Society</i> , 2013, 135, 9503-9511.	6.6	40
24	Metamagnetism and soliton excitations in the modulated ferromagnetic Ising chain CoV_2O_6 . <i>Physical Review Letters</i> , 2012, 109, 217205.	1.1	39
25	Charge Order and Interplay between the Molecular and Crystal States in $\text{Ba}_3\text{Ru}_2\text{O}_{10}$. <i>Physical Review Letters</i> , 2012, 109, 217205.	1.1	39
26	Giant pressure-induced volume collapse in the pyrite mineral MnS_2 . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 5106-5110.	3.3	37
27	Negative thermal expansion and antiferromagnetism in the actinide oxynictide NpFeAsO . <i>Physical Review B</i> , 2012, 85, .	1.1	34
28	Coexistence of long- and short-range magnetic order in the frustrated magnet SrYb_2O_6 . <i>Physical Review B</i> , 2012, 86, .	1.1	34
29	Local moments and symmetry breaking in metallic PrMnSbO . <i>Physical Review B</i> , 2010, 82, .	1.1	33
30	Spin orders and lattice distortions of geometrically frustrated 6H-perovskites $\text{Ba}_3\text{V}_2\text{O}_{11}$. <i>Physical Review B</i> , 2011, 84, .	1.1	33
31	Persistent inter- and four-atom orbital molecules in the spinel $\text{Al}_2\text{V}_2\text{O}_7$. <i>Physical Review Materials</i> , 2017, 1, .	0.9	30
32	Interlayer tuning of electronic and magnetic properties in honeycomb ordered $\text{Ag}_3\text{LiRu}_2\text{O}_6$. <i>Journal of Materials Chemistry</i> , 2010, 20, 8021.	6.7	28
33	Bulk Metallic Glass-like Scattering Signal in Small Metallic Nanoparticles. <i>ACS Nano</i> , 2014, 8, 6163-6170.	7.3	26
34	Helical magnetic order in the distorted triangular antiferromagnet CaCr_2O_7 . <i>Physical Review Letters</i> , 2011, 106, 177201.	1.1	25
35	Disrupted antiferromagnetism in the brannerite MnV_2O_6 . <i>Physical Review B</i> , 2007, 75, .	1.1	19
36	Mechanical double loop behavior in BaTiO_3 : Stress induced paraelastic to ferroelastic phase transformation. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	19

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37	Chemical Tuning of Positive and Negative Magnetoresistances, and Superconductivity in 1222-Type Ruthenocuprates. <i>Journal of the American Chemical Society</i> , 2006, 128, 12364-12365.	6.6	16
38	Nanoscale order in the frustrated mixed conductor $\text{La}_{5.6}\text{WO}_{12}\hat{\sim}\hat{\sim}$. <i>Journal of Applied Crystallography</i> , 2016, 49, 997-1008.	1.9	15
39	Orbital Molecules in the New Spinel GaV_2O_4 . <i>Inorganic Chemistry</i> , 2018, 57, 2815-2822.	1.9	14
40	Magnetic order in acentric Pb_2MnO_4 . <i>Journal of Materials Chemistry</i> , 2007, 17, 4885.	6.7	13
41	Induced antiferromagnetism and large magnetoresistance in $\text{RuSr}_2(\text{Nd,Y,Ce})_2\text{Cu}_2\text{O}_{10}\hat{\sim}\hat{\sim}$ ruthenocuprates. <i>Physical Review B</i> , 2007, 76, .	1.1	11
42	Quasiparticle interference in antiferromagnetic parent compounds of iron-based superconductors. <i>Physical Review B</i> , 2011, 83, .	1.1	11
43	The evolution of crystalline ordering for ligand-ornamented zinc oxide nanoparticles. <i>CrystEngComm</i> , 2016, 18, 2163-2172.	1.3	11
44	Colossal Density-Driven Resistance Response in the Negative Charge Transfer Insulator MnS_2 . <i>Physical Review Letters</i> , 2021, 127, 016401.	2.9	11
45	Experimental observation and computational study of the spin-gap excitation in $\text{Ba}_3\text{BiRu}_2\text{O}_9$. <i>Physical Review B</i> , 2016, 94, .	1.1	9
46	Crystal structure transformation in CeRuSn seen via the atomic pair distribution function. <i>Physical Review B</i> , 2014, 89, .	1.1	8
47	Spin-driven symmetry breaking in the frustrated fcc pyrite MnS_2 . <i>Journal of Physics Condensed Matter</i> , 2015, 27, 226003.	0.7	8
48	Possible high-pressure orbital quantum criticality and an emergent resistive phase in PbRuO_3 . <i>Physical Review B</i> , 2013, 87, .	1.1	7
49	Electronic origins of the giant volume collapse in the pyrite mineral MnS_2 . <i>Journal of Solid State Chemistry</i> , 2019, 269, 540-546.	1.4	7
50	Decoupling Lattice and Magnetic Instabilities in Frustrated CuMnO_2 . <i>Inorganic Chemistry</i> , 2021, 60, 6004-6015.	1.9	7
51	Polymorphism and piezochromicity in the three-dimensional network-based phosphate RbCuPO_4 . <i>Acta Crystallographica Section B: Structural Science</i> , 2010, 66, 412-421.	1.8	6
52	Charge and orbital order in frustrated $\text{Pb}_3\text{Mn}_7\text{O}_{15}$. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 186002.	0.7	6
53	Triplet dimerization crossover driven by magnetic frustration in $\text{Mn}_2\text{V}_2\text{O}_5$. <i>Physical Review B</i> , 2008, 77, .	1.1	5
54	A neutron tomography study: probing the spontaneous crystallization of randomly packed granular assemblies. <i>Scientific Reports</i> , 2018, 8, 17637.	1.6	5

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55	Real-Time Observation of "Soft" Magic-Size Clusters during Hydrolysis of the Model Metallodrug Bismuth Disalicylate. <i>Journal of the American Chemical Society</i> , 2021, 143, 16332-16336.	6.6	5
56	Magnetoelastic effects in multiferroic HoMnO ₃ . <i>Solid State Communications</i> , 2014, 180, 46-51.	0.9	4
57	Effect of delithiation on the dimer transition of the honeycomb-lattice ruthenate $\text{Li}_{1-x}\text{Mn}_2\text{O}_4$. <i>Physical Review B</i> , 2016, 94, .	0.1	1
58	Structure and paramagnetism in weakly correlated Y ₈ Co ₅ . <i>Journal of Physics Condensed Matter</i> , 2013, 25, 125701.	0.7	3
59	Synchrotron X-Ray Scattering as a Tool for Characterising Catalysts on Multiple Length Scales. <i>Oil and Gas Science and Technology</i> , 2015, 70, 429-436.	1.4	2
60	Spin-chain correlations in the frustrated triangular lattice material CuMnO ₂ . <i>Journal of Physics Condensed Matter</i> , 2020, 32, 445802.	0.7	2
61	High pressure neutron diffraction study of the magnetoresistive 1222-type ruthenocuprate, RuSr ₂ Nd _{0.9} Y _{0.2} Ce _{0.9} Cu ₂ O ₁₀ . <i>Materials Research Bulletin</i> , 2006, 41, 1001-1007.	2.7	1
62	High-Pressure Annealing of a Prestructured Nanocrystalline Precursor to Obtain Tetragonal and Orthorhombic Polymorphs of Hf ₃ N ₄ . <i>Materials Research Society Symposia Proceedings</i> , 2014, 1655, 1.	0.1	1
63	Nb ₆ Mn _{1-x} Ir _{6+x} B ₈ (x = 0.25): A Ferrimagnetic Boride Containing Planar B ₆ Rings Interacting with Ferromagnetic Mn Chains. <i>Journal of Physical Chemistry C</i> , 2021, 125, 13635-13640.	1.5	1