

# Alexandra Gibbs

## List of Publications by Year in descending order

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69  
papers

2,038  
citations

279778

23  
h-index

233409

45  
g-index

70  
all docs

70  
docs citations

70  
times ranked

2673  
citing authors

#	ARTICLE	IF	CITATIONS
1	The crystal and defect structures of polar KBiNb <sub>2</sub> O <sub>7</sub> . Dalton Transactions, 2022, 51, 1866-1873.	3.3	0
2	Site-Selective d <sup>10</sup> /d <sup>0</sup> Substitution in an S = <sup>1</sup> / <sub>2</sub> Spin Ladder Ba <sub>2</sub> CuTe <sub>1-x</sub> W <sub>x</sub> O <sub>6</sub> (0 ≤ x ≤ 1) Tj ETQq0 0 0 rgBT /Overlo	3.0	5
3	Interplay between Oxygen Octahedral Rotation and Deformation in the Acentric ARTiO <sub>4</sub> Series toward Negative Thermal Expansion. Chemistry of Materials, 2022, 34, 6492-6504.	6.7	5
4	Quantum materials with strong spin-orbit coupling: challenges and opportunities for materials chemists. Journal of Materials Chemistry C, 2021, 9, 11640-11654.	5.5	18
5	Comprehensive determination of the high-pressure structural behaviour of BaTiO <sub>3</sub> . Materials Advances, 2021, 2, 6094-6103.	5.4	5
6	Structural phase transitions in the geometric ferroelectric LaTa <sub>4</sub> O <sub>13</sub> . Physical Review B, 2021, 103, .	3.2	2
7	High-temperature electrical and thermal transport properties of polycrystalline PdCoO <sub>2</sub> . Physical Review Materials, 2021, 5, .	3.1	1
8	High-sensitivity heat-capacity measurements on Sr <sub>2</sub> RuO <sub>4</sub> under uniaxial pressure. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	33
9	Strain-Stabilized (I <sub>h</sub> , I <sub>c</sub> ) Order at the Surface of Fe <sub>1+x</sub> Te. Nano Letters, 2021, 21, 2786-2792.	9.1	2
10	Ultrawide Temperature Range Super-Invar Behavior of R <sub>2</sub> FeCo <sub>2</sub> . Tj ETQq0 0 0 rgBT /Overlo		

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19	Impact of Li Doping on the Structure and Phase Stability in $\text{AgNbO}_3$ . Inorganic Chemistry, 2020, 59, 12595-12607.	4.0	16
20	Phase transitions in the hexagonal tungsten bronze $\text{RbNbW}_2\text{O}_9$ . Journal of Solid State Chemistry, 2020, 286, 121275.	2.9	2
21	A comprehensive variable temperature study of the layered oxide, $\text{Ca}_2\text{Mn}_3\text{O}_8$ . Journal of Alloys and Compounds, 2020, 843, 155633.	5.5	1
22	HRPD-X; a proposed upgrade to the ISIS High-Resolution Powder Diffractometer. Journal of Neutron Research, 2020, 22, 91-98.	1.1	3
23	New $\text{LiMg}$ phosphates with a 3D framework: experimental and ab initio calculations. Dalton Transactions, 2020, 49, 10069-10083.	3.3	0
24	Complex Structural Phase Transitions of the Hybrid Improper Polar Dion-Jacobson Oxides $\text{RbNdM}_2\text{O}_7$ and $\text{CsNdM}_2\text{O}_7$ ( $M = \text{Nb, Ta}$ ). Chemistry of Materials, 2020, 32, 4340-4346.	6.7	21
25	Robust spin-orbit coupling induced semimetallic state in hyperkagome iridate $\text{Li}_3\text{Ir}_3\text{O}_8$ . Physical Review Materials, 2020, 4, .	2.4	7
26	Realizing square and diamond lattice Heisenberg antiferromagnet models in the $\text{Ir}^{\pm 2}$ and $\text{Ir}^{\pm 1}$ phases of the coordination framework, $\text{Ir}^{\pm 2}$ phases of the	2.4	6
27	An Electronically Driven Improper Ferroelectric: Tungsten Bronzes as Microstructural Analogs for the Hexagonal Manganites. Advanced Materials, 2019, 31, 1903620.	21.0	10
28	Magnetic frustration and spontaneous rotational symmetry breaking in $\text{PdCrO}_2$ . Physical Review B, 2019, 100, .	3.2	6
29	High-Resolution Photoemission on $\text{Sr}_2\text{IrO}_7$ Reveals Correlation-Enhanced Effective Spin-Orbit Coupling and Dominantly Local Self-Energies. Physical Review X, 2019, 9, .	8.9	90
30	Pressure-induced collapse of the spin-orbital Mott state in the hyperhoneycomb iridate $\text{Ir}_2\text{O}_7$ . Physical Review B, 2019, 99, .	3.2	24
31	Intermultiplet transitions and magnetic long-range order in Sm-based pyrochlores. Physical Review B, 2019, 99, .	3.2	9
32	Octahedral tilting in the polar hexagonal tungsten bronzes $\text{RbNbW}_2\text{O}_9$ and $\text{KNbW}_2\text{O}_9$ . Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2019, 75, 815-821.	1.1	2
33	Large easy-axis anisotropy in the one-dimensional magnet $\text{BaMo}_3\text{O}_{12}$ . Physical Review B, 2019, 100, .	3.2	12
34	Unexpected phase transition sequence in the ferroelectric $\text{Bi}_4\text{Ti}_3\text{O}_{12}$ . IUCr, 2019, 6, 438-446.	2.2	6
35	Crystal structures of $\text{NiSO}_4 \cdot 9\text{H}_2\text{O}$ and $\text{NiSO}_4 \cdot 8\text{H}_2\text{O}$ : magnetic properties, stability with respect to morenosite ( $\text{NiSO}_4 \cdot 7\text{H}_2\text{O}$ ), the solid-solution series $(\text{Mg}_x\text{Ni}_{1-x})\text{SO}_4 \cdot 9\text{H}_2\text{O}$ . Physics and Chemistry of Minerals, 2018, 45, 695-712.	0.8	4
36	Resistivity in the Vicinity of a van Hove Singularity: $\text{Sr}_2\text{IrO}_7$ under Uniaxial Pressure. Physical Review Letters, 2018, 120, 076602.	7.8	76

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37	Spin dynamics of coupled spin ladders near quantum criticality in $\text{BaMn}_2\text{S}_2$ . Physical Review B, 2018, 98, .		
38	Cation Exchange as a Mechanism To Engineer Polarity in Layered Perovskites. Chemistry of Materials, 2018, 30, 8915-8924.	6.7	25
39	Micron-scale measurements of low anisotropic strain response of local $\text{TC}$ in $\text{Sr}_2\text{RuO}_7$ . Physical Review B, 2018, 98, .	3.2	37
40	Hybrid Improper Ferroelectricity in $(\text{Sr,Ca})_3\text{Sn}_2\text{O}_7$ and Beyond: Universal Relationship between Ferroelectric Transition Temperature and Tolerance Factor in $n=2$ Ruddlesden-Popper Phases. Journal of the American Chemical Society, 2018, 140, 15690-15700.	13.7	74
41	Ferroelectric $\text{Sr}_3\text{Zr}_2\text{O}_7$ : Competition between Hybrid Improper Ferroelectric and Antiferroelectric Mechanisms. Advanced Functional Materials, 2018, 28, 1801856.	14.9	89
42	Carbonate: an alternative dopant to stabilize new perovskite phases; synthesis and structure of $\text{Ba}_3\text{Yb}_2\text{O}_5\text{CO}_3$ and related isostructural phases $\text{Ba}_3\text{Ln}_2\text{O}_5\text{CO}_3$ ( $\text{Ln} = \text{Y, Dy, Ho, Er, Tm}$ and $\text{Lu}$ ). Dalton Transactions, 2018, 47, 12901-12906.	3.3	6
43	Magnetic interactions in $\text{PdCrO}_2$ and their effects on its magnetic structure. Physical Review B, 2018, 98, .		
44	Temperature-induced polymorphism in methyl stearate. CrystEngComm, 2018, 20, 6885-6893.	2.6	9
45	Neutron scattering length determination by means of total scattering. Journal of Applied Crystallography, 2018, 51, 854-866.	4.5	3
46	Crystal structure and crystal growth of the polar ferrimagnet $\text{CaBaFe}_4\text{O}_7$ . Physical Review Materials, 2018, 2, .	2.4	3
47	Strong peak in $\text{TC}$ of $\text{Sr}_2\text{RuO}_4$ under uniaxial pressure. Science, 2017, 355, .	12.6	200
48	$\text{S}=\text{O}$ critical spin ladders produced by orbital ordering in $\text{BaMn}_2\text{S}_2$ . Physical Review B, 2017, 95, .	3.2	13
49	Theory and Neutrons Combine To Reveal a Family of Layered Perovskites without Inversion Symmetry. Chemistry of Materials, 2017, 29, 9489-9497.	6.7	36
50	High-resolution neutron-diffraction measurements to 8 kbar. High Pressure Research, 2017, 37, 486-494.	1.2	2
51	Robust Bain distortion in the premartensite phase of a platinum-substituted $\text{Ni}_2\text{MnGa}$ magnetic shape memory alloy. Nature Communications, 2017, 8, 1006.	12.8	26
52	Cation disorder and phase transitions in the structurally complex solar cell material $\text{Cu}_2\text{ZnSnS}_4$ . Journal of Materials Chemistry A, 2017, 5, 16672-16680.	10.3	51
53	Structural Modification of the Cation-Ordered Ruddlesden-Popper Phase $\text{YSr}_2\text{Mn}_2\text{O}_7$ by Cation Exchange and Anion Insertion. Inorganic Chemistry, 2017, 56, 9988-9995.	4.0	13
54	Phase Transition Behavior of the Layered Perovskite $\text{CsBi}_0.6\text{La}_0.4\text{Nb}_2\text{O}_7$ : A Hybrid Improper Ferroelectric. Crystals, 2017, 7, 135.	2.2	11

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55	Strain Control of Fermiology and Many-Body Interactions in Two-Dimensional Ruthenates. <i>Physical Review Letters</i> , 2016, 116, 197003.	7.8	82
56	Quantum oscillations and magnetic reconstruction in the delafossite $\text{PdCrO}$ . <i>Physical Review B</i> , 2015, 92, .	3.2	30
57	An intermediate state between the kagome-ice and the fully polarized state in $\text{Dy}_2\text{Ti}_2\text{O}_7$ . <i>Papers in Physics</i> , 2015, 7, .	0.2	7
58	Search for spontaneous edge currents and vortex imaging in $\text{Sr}_2\text{O}_4$ mesostructures. <i>Physical Review B</i> , 2014, 89, .	3.2	65
59	Strong Increase of $\chi_T$ of $\text{Sr}_2\text{RuO}_4$ Under Both Tensile and Compressive Strain. <i>Science</i> , 2014, 344, 283-285.	12.6	270
60	Muon-spin rotation measurements of the vortex state in $\text{Sr}_2\text{O}_4$ : Type-1.5 superconductivity, vortex clustering, and a crossover from a triangular to a square vortex lattice. <i>Physical Review B</i> , 2014, 89, .	3.2	34
61	$\text{Mn}_{0.7}\text{O}_{0.3}$ . <i>Physical Review B</i> , 2014, 89, .	3.2	4
62	Quantum Oscillations and High Carrier Mobility in the Delafossite $\text{PdCoO}_2$ . <i>Physical Review Letters</i> , 2012, 109, 116401.	7.8	110
63	Vortex imaging in unconventional superconductors. <i>Physica C: Superconductivity and Its Applications</i> , 2012, 479, 65-68.	1.2	2
64	High-temperature phase transitions of hexagonal $\text{YMnO}_3$ . <i>Physical Review B</i> , 2011, 83, .	3.2	184
65	Vortex imaging and vortex lattice transitions in superconducting $\text{Sr}_2\text{RuO}_4$ . <i>Physical Review B</i> , 2011, 84, .	3.2	102
66	Quantum oscillations near the metamagnetic transition in $\text{Sr}_3\text{Ru}_2\text{O}_7$ . <i>Physical Review B</i> , 2010, 81, .	3.2	27
67	Unconventional Magnetization Processes and Thermal Runaway in Spin-Ice $\text{Dy}_2\text{Ti}_2\text{O}_7$ . <i>Physical Review Letters</i> , 2010, 105, 267205.	7.8	58
68	Evidence for the $\text{Sr}_2\text{RuO}_4$ intercalations in the $\text{Sr}_3\text{Ru}_2\text{O}_7$ region of the $\text{Sr}_3\text{Ru}_2\text{O}_7$ - $\text{Sr}_2\text{RuO}_4$ eutectic system. <i>Journal of Physics: Conference Series</i> , 2009, 150, 052113.	0.4	2
69	Low-intermediate-temperature, high-pressure thermoelastic and crystallographic properties of thermoelectric clausthalite ( $\text{PbSe}$ ). <i>Materials Advances</i> , 0, .	5.4	1