Alex M Ganose

List of Publications by Citations

49 papers	2,186 citations	24 h-index	46 g-index
62 ext. papers	2,815 ext. citations	7.8 avg, IF	5.65 L-index

#	Paper	IF	Citations
49	Beyond methylammonium lead iodide: prospects for the emergent field of ns containing solar absorbers. *Chemical Communications*, **2016**, 53, 20-44	5.8	280
48	Defect Tolerance to Intolerance in the Vacancy-Ordered Double Perovskite Semiconductors Cs2SnI6 and Cs2TeI6. *Journal of the American Chemical Society*, **2016**, 138, 8453-64	16.4	264
47	Interplay of Orbital and Relativistic Effects in Bismuth Oxyhalides: BiOF, BiOCl, BiOBr, and BiOI. *Chemistry of Materials*, **2016**, 28, 1980-1984	9.6	225
46	Band gap and work function tailoring of SnO2 for improved transparent conducting ability in photovoltaics. *Journal of Materials Chemistry C*, **2016**, 4, 1467-1475	7.1	141
45	sumo: Command-line tools for plotting and analysis of periodic ab initio calculations. *Journal of Open Source Software*, **2018**, 3, 717	5.2	127
44	(CH3NH3)2Pb(SCN)2I2: a more stable structural motif for hybrid halide photovoltaics?. *Journal of Physical Chemistry Letters*, **2015**, 6, 4594-8	6.4	100
43	Relativistic electronic structure and band alignment of BiSI and BiSeI: candidate photovoltaic materials. *Journal of Materials Chemistry A*, **2016**, 4, 2060-2068	13	97
42	Perspectives and Design Principles of Vacancy-Ordered Double Perovskite Halide Semiconductors. *Chemistry of Materials*, **2019**, 31, 1184-1195	9.6	89
41	Anharmonicity and Octahedral Tilting in Hybrid Vacancy-Ordered Double Perovskites. *Chemistry of Materials*, **2018**, 30, 472-483	9.6	70
40	Tolerance Factor and Cooperative Tilting Effects in Vacancy-Ordered Double Perovskite Halides. *Chemistry of Materials*, **2018**, 30, 3909-3919	9.6	63
39	Exploiting Excited-State Aromaticity To Design Highly Stable Singlet Fission Materials. *Journal of the American Chemical Society*, **2019**, 141, 13867-13876	16.4	55
38	Probing the chemical structure of monolayer covalent-organic frameworks grown via Schiff-base condensation reactions. *Chemical Communications*, **2016**, 52, 9941-4	5.8	53
37	Stability of the M2 phase of vanadium dioxide induced by coherent epitaxial strain. *Physical Review B*, **2016**, 94,	3.3	51
36	First-principles insights into tin-based two-dimensional hybrid halide perovskites for photovoltaics. *Journal of Materials Chemistry A*, **2018**, 6, 5652-5660	13	50
35	Efficient calculation of carrier scattering rates from first principles. *Nature Communications*, **2021**, 12, 2222	17.4	44
34	Defect Engineering of Earth-Abundant Solar Absorbers BiSI and BiSeI. *Chemistry of Materials*, **2018**, 30, 3827-3835	9.6	39
33	Antiferromagnetism at T>500K in the layered hexagonal ruthenate SrRu2O6. *Physical Review B*, **2015**, 92,	3.3	38

32	Electronic and defect properties of (CH3NH3)2Pb(SCN)2I2 analogues for photovoltaic applications. *Journal of Materials Chemistry A*, **2017**, 5, 7845-7853	13	37
31	Narrow-band anisotropic electronic structure of ReS2. *Physical Review B*, **2017**, 96,	3.3	33
30	An assessment of silver copper sulfides for photovoltaic applications: theoretical and experimental insights. *Journal of Materials Chemistry A*, **2016**, 4, 12648-12657	13	32
29	Anion Distribution, Structural Distortion, and Symmetry-Driven Optical Band Gap Bowing in Mixed Halide CsSnX Vacancy Ordered Double Perovskites. *Chemistry of Materials*, **2019**, 31, 9430-9444	9.6	32
28	Galore: Broadening and weighting for simulation of photoelectron spectroscopy. *Journal of Open Source Software*, **2018**, 3, 773	5.2	25
27	Benchmarking materials property prediction methods: the Matbench test set and Automatminer reference algorithm. *Npj Computational Materials*, **2020**, 6,	10.9	25
26	Exploring the PbSBi2S3 Series for Next Generation Energy Conversion Materials. *Chemistry of Materials*, **2017**, 29, 5156-5167	9.6	24
25	Hybrid Organic-Inorganic Coordination Complexes as Tunable Optical Response Materials. *Inorganic Chemistry*, **2016**, 55, 3393-400	5.1	23
24	Correlated Polyhedral Rotations in the Absence of Polarons during Electrochemical Insertion of Lithium in ReO3. *ACS Energy Letters*, **2018**, 3, 2513-2519	20.1	23
23	Compromise between band structure and phonon scattering in efficient n-Mg3Sb2-xBix thermoelectrics. *Materials Today Physics*, **2021**, 18, 100362	8	15
22	Two-dimensional eclipsed arrangement hybrid perovskites for tunable energy level alignments and photovoltaics. *Journal of Materials Chemistry C*, **2019**, 7, 5139-5147	7.1	14
21	Computational discovery of promising new n-type dopable ABX Zintl thermoelectric materials. *Materials Horizons*, **2020**, 7, 1809-1818	14.4	14
20	Local corrugation and persistent charge density wave in ZrTe3 with Ni intercalation. *Physical Review B*, **2018**, 97,	3.3	12
19	Experimental validation of high thermoelectric performance in RECuZnP predicted by high-throughput DFT calculations. *Materials Horizons*, **2021**, 8, 209-215	14.4	12
18	Robocrystallographer: automated crystal structure text descriptions and analysis. *MRS Communications*, **2019**, 9, 874-881	2.7	11
17	Assessing the limitations of transparent conducting oxides as thermoelectrics. *Journal of Materials Chemistry A*, **2020**, 8, 11948-11957	13	9
16	Insights into the electronic structure of OsO2 using soft and hard x-ray photoelectron spectroscopy in combination with density functional theory. *Physical Review Materials*, **2019**, 3,	3.2	7
15	Enumeration as a Tool for Structure Solution: A Materials Genomic Approach to Solving the Cation-Ordered Structure of Na3V2(PO4)2F3. *Chemistry of Materials*, **2020**, 32, 8981-8992	9.6	7

14	Benchmarking Coordination Number Prediction Algorithms on Inorganic Crystal Structures. *Inorganic Chemistry*, **2021**, 60, 1590-1603	5.1	7
13	IFermi: A python library for Fermi surface generation and analysis. *Journal of Open Source Software*, **2021**, 6, 3089	5.2	7
12	Electroactive Nanoporous Metal Oxides and Chalcogenides by Chemical Design. *Chemistry of Materials*, **2017**, 29, 3663-3670	9.6	6
11	High Thermoelectric Performance and Defect Energetics of Multipocketed Full Heusler Compounds. *Physical Review Applied*, **2020**, 14,	4.3	6
10	Influence of One Specific Carbon□Carbon Bond on the Quality, Stability, and Photovoltaic Performance of Hybrid Organic□Inorganic Bismuth Iodide Materials. *ACS Applied Energy Materials*, **2019**, 2, 1579-1587	6.1	4
9	Transition Metal Migration Can Facilitate Ionic Diffusion in Defect Garnet-Based Intercalation Electrodes. *ACS Energy Letters*, **2020**, 5, 1448-1455	20.1	3
8	Lone pair driven anisotropy in antimony chalcogenide semiconductors.. *Physical Chemistry Chemical Physics*, **2022**,	3.6	3
7	BaBi2O6: A Promising n-Type Thermoelectric Oxide with the PbSb2O6 Crystal Structure. *Chemistry of Materials*, **2021**, 33, 7441-7456	9.6	2
6	Review: Bismuth-Based Photovoltaics. *Springer Theses*, **2020**, 109-116	0.1	
5	Vacancy-Ordered Double Perovskites. *Springer Theses*, **2020**, 87-106	0.1	
4	Pseudohalide Perovskite Absorbers. *Springer Theses*, **2020**, 65-85	0.1	
3	Review: Perovskite Photovoltaics. *Springer Theses*, **2020**, 53-63	0.1	
2	Photovoltaics. *Springer Theses*, **2020**, 3-20	0.1	
1	Bismuth Chalcoiodides. *Springer Theses*, **2020**, 117-138	0.1	