Arun Kumar Mannodi-Kanakkithodi

List of Publications by Year
in descending order

38 papers	2,542 citations	394421 19 h-index	377865 34 g-index
40 all docs	40 docs citations	40 times ranked	2882 citing authors

#	Article	IF	Citations
1	Defective Ultrathin ZnIn₂S₄ for Photoreductive Deuteration of Carbonyls Using D₂O as the Deuterium Source. Advanced Science, 2022, 9, e2103408.	11.2	15
2	Deep learning the properties of inorganic perovskites. Modelling and Simulation in Materials Science and Engineering, 2022, 30, 034005.	2.0	4
3	Data-driven design of novel halide perovskite alloys. Energy and Environmental Science, 2022, 15, 1930-1949.	30.8	26
4	Accelerated screening of functional atomic impurities in halide perovskites using high-throughput computations and machine learning. Journal of Materials Science, 2022, 57, 10736-10754.	3.7	10
5	Universal machine learning framework for defect predictions in zinc blende semiconductors. Patterns, 2022, 3, 100450.	5.9	22
6	Machine learning for impurity charge-state transition levels in semiconductors from elemental properties using multi-fidelity datasets. Journal of Chemical Physics, 2022, 156, 114110.	3.0	5
7	A first principles investigation of ternary and quaternary IIâ€“VI zincblende semiconductor alloys. Modelling and Simulation in Materials Science and Engineering, 2022, 30, 044001.	2.0	1
8	First principles modeling of polymer encapsulant degradation in Si photovoltaic modules. Physical Chemistry Chemical Physics, 2021, 23, 10357-10364.	2.8	2
9	Computational Data-Driven Materials Discovery. Trends in Chemistry, 2021, 3, 79-82.	8.5	19
10	Computational design of passivants for CdTe grain boundaries. Solar Energy Materials and Solar Cells, 2021, 232, 111279.	6.2	2
11	Machine-learned impurity level prediction for semiconductors: the example of Cd-based chalcogenides. Npj Computational Materials, 2020, 6, .	8.7	32
12	Defect Energetics in Pseudo-Cubic Mixed Halide Lead Perovskites from First-Principles. Journal of Physical Chemistry C, 2020, 124, 16729-16738.	3.1	19
13	Effect of selenium and chlorine co-passivation in polycrystalline CdSeTe devices. Applied Physics Letters, 2019, 115, .	3.3	33
14	Spectroscopic Comparison of Thermal Transport at Organicâ€“Inorganic and Organic-Hybrid Interfaces Using CsPbBr₃ and FAPbBr₃ (FA = Formamidinium) Perovskite Nanocrystals. Nano Letters, 2019, 19, 8155-8160.	9.1	4
15	Infrared-pump electronic-probe of methylammonium lead iodide reveals electronically decoupled organic and inorganic sublattices. Nature Communications, 2019, 10, 482.	12.8	25
16	Comprehensive Computational Study of Partial Lead Substitution in Methylammonium Lead Bromide. Chemistry of Materials, 2019, 31, 3599-3612.	6.7	37
17	Charge Transfer Dynamics of Phase-Segregated Halide Perovskites: CH₃NH₃PbCl₃ and CH₃NH₃PbI₃ or (C₄H₉NH₃)₂(CH₃NH₃)_{nâ^'1}Pbs Mixtures. ACS Applied Materials & Interfaces, 2019, 11, 9583-9593.	8.0	14
18	Machine learning defect properties in Cd-based chalcogenides. , 2019, , .		0

#	Article	IF	Citations
19	Scoping the polymer genome: A roadmap for rational polymer dielectrics design and beyond. Materials Today, 2018, 21, 785-796.	14.2	143
20	Materials Data Infrastructure and Materials Informatics. , 2018, , 193-225.		18
21	Efficient CdTe photovoltaics by co-passivating grain boundaries. , 2018, , .		2
22	First-principles Study of Intrinsic and Extrinsic Point Defects in Lead-Based Hybrid Perovskites. , 2018, , .		3
23	A material genome approach towards exploration of Zn and Cd coordination complex polyester as dielectrics: Design, synthesis and characterization. Polymer, 2018, 159, 95-105.	3.8	7
24	A rational co-design approach to the creation of new dielectric polymers with high energy density. IEEE Transactions on Dielectrics and Electrical Insulation, 2017, 24, 732-743.	2.9	26
25	Mining Materials Design Rules from Data: The Example of Polymer Dielectrics. Chemistry of Materials, 2017, 29, 9001-9010.	6.7	48
26	Heterogeneous mesoporous manganese/cobalt oxide catalysts for selective oxidation of 5-hydroxymethylfurfural to 2,5-diformylfuran. Chemical Communications, 2017, 53, 11751-11754.	4.1	65
27	Machine learning in materials informatics: recent applications and prospects. Npj Computational Materials, 2017, 3, .	8.7	1,013
28	A Rational Co-Design Approach for Next Generation Dielectric Materials with the Transition Metal Containing Coordination Polymers. ECS Meeting Abstracts, 2017, , .	0.0	0
29	Critical role of morphology on the dielectric constant of semicrystalline polyolefins. Journal of Chemical Physics, 2016, 144, 234905.	3.0	14
30	A polymer dataset for accelerated property prediction and design. Scientific Data, 2016, 3, 160012.	5.3	139
31	Multi-objective optimization techniques to design the Pareto front of organic dielectric polymers. Computational Materials Science, 2016, 125, 92-99.	3.0	31
32	Critical assessment of regression-based machine learning methods for polymer dielectrics. Computational Materials Science, 2016, 125, 123-135.	3.0	45
33	Optimization of Organotin Polymers for Dielectric Applications. ACS Applied Materials & Interfaces, 2016, 8, 21270-21277.	8.0	33
34	Machine Learning Strategy for Accelerated Design of Polymer Dielectrics. Scientific Reports, 2016, 6, 20952.	3.3	279
35	Rational Coâ€Design of Polymer Dielectrics for Energy Storage. Advanced Materials, 2016, 28, 6277-6291.	21.0	149
36	Accelerated materials property predictions and design using motif-based fingerprints. Physical Review B, 2015, 92, .	3.2	136

#	Article	IF	Citations
37	Rational Design of Organotin Polyesters. Macromolecules, 2015, 48, 2422-2428.	4.8	54
38	Poly(dimethyltin glutarate) as a Prospective Material for High Dielectric Applications. Advanced Materials, 2015, 27, 346-351.	21.0	64