Ady Suwardi

List of Publications by Year
in descending order

60 papers	1,847 citations	201674 27 h-index	289244 40 g-index
62 all docs	62 docs citations	62 times ranked	1479 citing authors

#	Article	IF	Citations
1	Epitaxial ferroelectric BiFeO3 thin films for unassisted photocatalytic water splitting. Applied Physics Letters, 2013, 103, .	3.3	133
2	Thermoelectric materials and transport physics. Materials Today Physics, 2021, 21, 100519.	6.0	77
3	Toward Accelerated Thermoelectric Materials and Process Discovery. ACS Applied Energy Materials, 2020, 3, 2240-2257.	5.1	75
4	Machine Learningâ€Driven Biomaterials Evolution. Advanced Materials, 2022, 34, e2102703.	21.0	68
5	Tailoring the phase transition temperature to achieve high-performance cubic GeTe-based thermoelectrics. Journal of Materials Chemistry A, 2020, 8, 18880-18890.	10.3	61
6	Achieving high thermoelectric quality factor toward high figure of merit in GeTe. Materials Today Physics, 2020, 14, 100239.	6.0	61
7	Inertial effective mass as an effective descriptor for thermoelectrics via data-driven evaluation. Journal of Materials Chemistry A, 2019, 7, 23762-23769.	10.3	58
8	High thermoelectric performance enabled by convergence of nested conduction bands in Pb7Bi4Se13 with low thermal conductivity. Nature Communications, 2021, 12, 4793.	12.8	53
9	Composite epitaxial thin films: A new platform for tuning, probing, and exploiting mesoscale oxides. MRS Bulletin, 2015, 40, 933-942.	3.5	52
10	Electronic Modulation of Nickel Disulfide toward Efficient Water Electrolysis. Small, 2020, 16, e1905885.	10.0	52
11	Strategies to reduce the flammability of organic phase change Materials: A review. Solar Energy, 2022, 231, 115-128.	6.1	52
12	Improving carrier mobility in two-dimensional semiconductors with rippled materials. Nature Electronics, 2022, 5, 489-496.	26.0	52
13	Gateâ€Tunable Polar Optical Phonon to Piezoelectric Scattering in Fewâ€Layer Bi₂O₂Se for Highâ€Performance Thermoelectrics. Advanced Materials, 2021, 33, e2004786.	21.0	48
14	Bottom-Up Engineering Strategies for High-Performance Thermoelectric Materials. Nano-Micro Letters, 2021, 13, 119.	27.0	48
15	Single-Crystalline Thin Films for Studying Intrinsic Properties of BiFeO₃â€“SrTiO₃ Solid Solution Photoelectrodes in Solar Energy Conversion. Chemistry of Materials, 2015, 27, 6635-6641.	6.7	44
16	Additive Manufacturing of Thermoelectrics: Emerging Trends and Outlook. ACS Energy Letters, 2022, 7, 720-735.	17.4	40
17	High Thermoelectric Performance through Crystal Symmetry Enhancement in Triply Doped Diamondoid Compound Cu₂SnSe₃. Advanced Energy Materials, 2021, 11, 2100661.	19.5	39
18	Effective enhancement of thermoelectric and mechanical properties of germanium telluride via rhenium-doping. Journal of Materials Chemistry C, 2020, 8, 16940-16948.	5.5	38

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19	Suppressing Ge-vacancies to achieve high single-leg efficiency in GeTe with an ultra-high room temperature power factor. Journal of Materials Chemistry A, 2021, 9, 23335-23344.	10.3	38
20	New strain states and radical property tuning of metal oxides using a nanocomposite thin film approach. APL Materials, 2015, 3, 062507.	5.1	37
21	Transparent flexible thin-film pâ€“n junction thermoelectric module. Npj Flexible Electronics, 2020, 4, .	10.7	37
22	Crystal Structure and Atomic Vacancy Optimized Thermoelectric Properties in Gadolinium Selenides. Chemistry of Materials, 2020, 32, 10130-10139.	6.7	36
23	Enhanced Thermoelectric Performance of Nanocrystalline Indium Tin Oxide Pellets by Modulating the Density and Nanoporosity Via Spark Plasma Sintering. ACS Applied Nano Materials, 2020, 3, 10156-10165.	5.0	35
24	Origin of High Thermoelectric Performance in Earth-Abundant Phosphideâ€“Tetrahedrite. ACS Applied Materials & Interfaces, 2020, 12, 9150-9157.	8.0	35
25	Realizing zT Values of 2.0 in Cubic GeTe. ChemNanoMat, 2021, 7, 476-482.	2.8	35
26	Facile synthesis of Cu7Te4 nanorods and the enhanced thermoelectric properties of Cu7Te4â€“Bi0.4Sb1.6Te3 nanocomposites. Nano Energy, 2013, 2, 4-11.	16.0	34
27	Surface modification of microencapsulated phase change materials with nanostructures for enhancement of their thermal conductivity. Materials Chemistry and Physics, 2022, 277, 125438.	4.0	32
28	Unraveling the Critical Role of Melt-Spinning Atmosphere in Enhancing the Thermoelectric Performance of p-Type Bi_{0.52}Sb_{1.48}Te₃ Alloys. ACS Applied Materials & Interfaces, 2020, 12, 36186-36195.	8.0	28
29	Turning antiferromagnetic Sm_{0.34}Sr_{0.66}MnO₃ into a 140 K ferromagnet using a nanocomposite strain tuning approach. Nanoscale, 2016, 8, 8083-8090.	5.6	25
30	Cold-Sintered Bi₂Te₃-Based Materials for Engineering Nanograined Thermoelectrics. ACS Applied Energy Materials, 2022, 5, 2002-2010.	5.1	25
31	Upcycling Silicon Photovoltaic Waste into Thermoelectrics. Advanced Materials, 2022, 34, e2110518.	21.0	25
32	Designing good compatibility factor in segmented Bi0.5Sb1.5Te3 â€“ GeTe thermoelectrics for high power conversion efficiency. Nano Energy, 2022, 96, 107147.	16.0	24
33	Halogen bonding regulated functional nanomaterials. Nanoscale Advances, 2021, 3, 6342-6357.	4.6	23
34	Hot corrosion and internal spallation of laser-cladded inconel 625 superalloy coatings in molten sulfate salts. Corrosion Science, 2021, 193, 109869.	6.6	23
35	Integrating recyclable polymers into thermoelectric devices for green electronics. Journal of Materials Chemistry A, 2022, 10, 19787-19796.	10.3	21
36	The Efficacy of Plant-Based Ionizers in Removing Aerosol for COVID-19 Mitigation. Research, 2021, 2021, 2173642.	5.7	20

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37	Flexible elemental thermoelectrics with ultra-high power density. Materials Today Energy, 2022, 25, 100964.	4.7	20
38	A highly flexible form-stable silicone-octadecane PCM composite for heat harvesting. Materials Today Advances, 2022, 14, 100227.	5.2	20
39	Risk assessment of airborne COVID-19 exposure in social settings. Physics of Fluids, 2021, 33, 087118.	4.0	19
40	Thermoelectric Properties of Substoichiometric Electron Beam Patterned Bismuth Sulfide. ACS Applied Materials & Interfaces, 2020, 12, 33647-33655.	8.0	17
41	Enhanced near-room-temperature thermoelectric performance in GeTe. Rare Metals, 2022, 41, 3027-3034.	7.1	17
42	Electronic transport descriptors for the rapid screening of thermoelectric materials. Materials Horizons, 2021, 8, 2463-2474.	12.2	16
43	Improved zT in Nb₅Ge₃â€“GeTe thermoelectric nanocomposite. Nanoscale, 2022, 14, 410-418.	5.6	16
44	Direct measurement of the thermoelectric properties of electrochemically deposited Bi2Te3 thin films. Scientific Reports, 2020, 10, 17922.	3.3	15
45	SARS-CoV-2 in wastewater: From detection to evaluation. Materials Today Advances, 2022, 13, 100211.	5.2	15
46	Biomaterials by design: Harnessing data for future development. Materials Today Bio, 2021, 12, 100165.	5.5	13
47	Additive manufacturing solidification methodologies for ink formulation. Additive Manufacturing, 2022, 56, 102939.	3.0	13
48	Gallium-Doped Zinc Oxide Nanostructures for Tunable Transparent Thermoelectric Films. ACS Applied Nano Materials, 2022, 5, 8631-8639.	5.0	13
49	Recent advances in laser-cladding of metal alloys for protective coating and additive manufacturing. Journal of Adhesion Science and Technology, 2022, 36, 2482-2504.	2.6	13
50	Modification of thermal transport in few-layer MoS₂ by atomic-level defect engineering. Nanoscale, 2021, 13, 11561-11567.	5.6	12
51	Potential of Recycled Silicon and Silicon-Based Thermoelectrics for Power Generation. Crystals, 2022, 12, 307.	2.2	9
52	A Systematic Approach for Semiconductor Half-Heusler. Frontiers in Materials, 2021, 8, .	2.4	8
53	Direct deposition of low-cost carbon fiber reinforced stainless steel composites by twin-wire arc spray. Journal of Materials Processing Technology, 2022, 301, 117440.	6.3	8
54	Photon-upconverters for blue organic light-emitting diodes: a low-cost, sky-blue example. Nanoscale Advances, 2022, 4, 1318-1323.	4.6	6

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55	New paradigm for efficient thermoelectrics. , 2020, , 183-196.		5
56	Modulation of Spin Dynamics in 2D Transitionâ€Metal Dichalcogenide via Strainâ€Driven Symmetry Breaking. Advanced Science, 2022, , 2200816.	11.2	4
57	Physical Intuition to Improve Electronic Properties of Thermoelectrics. Frontiers in Physics, 2021, 9, .	2.1	3
58	Thermoelectric Materials: Gateâ€Tunable Polar Optical Phonon to Piezoelectric Scattering in Fewâ€Layer Bi₂O₂Se for Highâ€Performance Thermoelectrics (Adv. Mater. 4/2021). Advanced Materials, 2021, 33, 2170023.	21.0	1
59	Upcycling Silicon Photovoltaic Waste into Thermoelectrics (Adv. Mater. 19/2022). Advanced Materials, 2022, 34, .	21.0	0
60	Thermoelectricity: Phenomenon and applications. , 2022, , 267-293.		0