Elisa M Miller

List of Publications by Year
in descending order

75 papers	4,404 citations	172386 29 h-index	123376 61 g-index
79 all docs	79 docs citations	79 times ranked	7392 citing authors

#	Article	IF	Citations
1	Defect Tolerance to Intolerance in the Vacancy-Ordered Double Perovskite Semiconductors Cs₂SnI₆ and Cs₂TeI₆. Journal of the American Chemical Society, 2016, 138, 8453-8464.	6.6	415
2	Top and bottom surfaces limit carrier lifetime in lead iodide perovskite films. Nature Energy, 2017, 2, .	19.8	376
3	Tailored semiconducting carbon nanotube networks with enhanced thermoelectric properties. Nature Energy, 2016, 1, .	19.8	270
4	Diffusion-Controlled Synthesis of PbS and PbSe Quantum Dots with in Situ Halide Passivation for Quantum Dot Solar Cells. ACS Nano, 2014, 8, 614-622.	7.3	256
5	Balancing the Hydrogen Evolution Reaction, Surface Energetics, and Stability of Metallic MoS₂ Nanosheets via Covalent Functionalization. Journal of the American Chemical Society, 2018, 140, 441-450.	6.6	241
6	Tuning colloidal quantum dot band edge positions through solution-phase surface chemistry modification. Nature Communications, 2017, 8, 15257.	5.8	230
7	PbSe Quantum Dot Solar Cells with More than 6% Efficiency Fabricated in Ambient Atmosphere. Nano Letters, 2014, 14, 6010-6015.	4.5	212
8	Metal Halide Solid-State Surface Treatment for High Efficiency PbS and PbSe QD Solar Cells. Scientific Reports, 2015, 5, 9945.	1.6	205
9	Substrate-controlled band positions in CH₃NH₃PbI₃perovskite films. Physical Chemistry Chemical Physics, 2014, 16, 22122-22130.	1.3	177
10	Progress and Prospective of Nitrogen-Based Alternative Fuels. Chemical Reviews, 2020, 120, 5352-5436.	23.0	165
11	Semiconductor interfacial carrier dynamics via photoinduced electric fields. Science, 2015, 350, 1061-1065.	6.0	118
12	Revisiting the Valence and Conduction Band Size Dependence of PbS Quantum Dot Thin Films. ACS Nano, 2016, 10, 3302-3311.	7.3	118
13	High-Performance Flexible Perovskite Solar Cells on Ultrathin Glass: Implications of the TCO. Journal of Physical Chemistry Letters, 2017, 8, 4960-4966.	2.1	111
14	Switchable photovoltaic windows enabled by reversible photothermal complex dissociation from methylammonium lead iodide. Nature Communications, 2017, 8, 1722.	5.8	107
15	Air-Stable and Efficient PbSe Quantum-Dot Solar Cells Based upon ZnSe to PbSe Cation-Exchanged Quantum Dots. ACS Nano, 2015, 9, 8157-8164.	7.3	103
16	Preparation of Cd/Pb Chalcogenide Heterostructured Janus Particles via Controllable Cation Exchange. ACS Nano, 2015, 9, 7151-7163.	7.3	97
17	Pseudocapacitive Storage in Nanolayered Ti₂NT_xMXene Using Mg-Ion Electrolyte. ACS Applied Nano Materials, 2019, 2, 2785-2795.	2.4	92
18	Electrocatalytic and Optoelectronic Characteristics of the Two-Dimensional Titanium Nitride Ti₄N₃T_x MXene. ACS Applied Materials & Interfaces, 2019, 11, 11812-11823.	4.0	87

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19	Control of Plasmonic and Interband Transitions in Colloidal Indium Nitride Nanocrystals. Journal of the American Chemical Society, 2013, 135, 14142-14150.	6.6	77
20	Carbon dioxide and nitrogen reduction reactions using 2D transition metal dichalcogenide (TMDC) and carbide/nitride (MXene) catalysts. Energy and Environmental Science, 2021, 14, 6242-6286.	15.6	69
21	Photoinduced charge transfer in transition metal dichalcogenide heterojunctions â€“ towards next generation energy technologies. Energy and Environmental Science, 2020, 13, 2684-2740.	15.6	67
22	Conductivity Tuning via Doping with Electron Donating and Withdrawing Molecules in Perovskite CsPbI₃ Nanocrystal Films. Advanced Materials, 2019, 31, e1902250.	11.1	66
23	Synthesis and Spectroscopy of Silver-Doped PbSe Quantum Dots. Journal of the American Chemical Society, 2017, 139, 10382-10394.	6.6	58
24	Enhanced photoredox activity of CsPbBr3 nanocrystals by quantitative colloidal ligand exchange. Journal of Chemical Physics, 2019, 151, 204305.	1.2	52
25	Nanoscale mapping of hydrogen evolution on metallic and semiconducting MoS₂ nanosheets. Nanoscale Horizons, 2019, 4, 619-624.	4.1	46
26	Strategic Design of MoO₂ Nanoparticles Supported by Carbon Nanowires for Enhanced Electrocatalytic Nitrogen Reduction. ACS Energy Letters, 2020, 5, 3237-3243.	8.8	43
27	Low-energy room-temperature optical switching in mixed-dimensionality nanoscale perovskite heterojunctions. Science Advances, 2021, 7, .	4.7	41
28	Spatially Resolved Persistent Photoconductivity in MoS₂â€“WS₂ Lateral Heterostructures. ACS Nano, 2020, 14, 14080-14090.	7.3	36
29	Intrinsic and Extrinsically Limited Thermoelectric Transport within Semiconducting Singleâ€Walled Carbon Nanotube Networks. Advanced Electronic Materials, 2019, 5, 1800910.	2.6	29
30	n-Type PbSe Quantum Dots via Post-Synthetic Indium Doping. Journal of the American Chemical Society, 2018, 140, 13753-13763.	6.6	28
31	Covalent Surface Modification of Gallium Arsenide Photocathodes for Water Splitting in Highly Acidic Electrolyte. ChemSusChem, 2017, 10, 767-773.	3.6	27
32	Effect of host-mobility dependent carrier scattering on thermoelectric power factors of polymer composites. Nano Energy, 2016, 19, 128-137.	8.2	25
33	Unique interfacial thermodynamics of few-layer 2D MoS₂ for (photo)electrochemical catalysis. Energy and Environmental Science, 2019, 12, 1648-1656.	15.6	25
34	Photoelectron spectroscopy of small IBrâ¯(CO2)nâ€ˆ(n=â€“3) cluster anions. Journal of Chemical Physics, 2009, 131, 064304.	1.2	23
35	Solvent-Mediated Electron Hopping: Long-Range Charge Transfer in IBr ^{â¯} (CO) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	6.6	23
36	Single-Nanoflake Photo-Electrochemistry Reveals Champion and Spectator Flakes in Exfoliated MoSe₂ Films. Journal of Physical Chemistry C, 2018, 122, 6539-6545.	1.5	23

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37	Plasmonic Hot Hole Transfer in Gold Nanoparticle-Decorated Transition Metal Dichalcogenide Nanosheets. ACS Photonics, 2020, 7, 197-202.	3.2	21
38	Semiconductor-to-Metal Transition in Rutile TiO₂ Induced by Tensile Strain. Chemistry of Materials, 2017, 29, 2173-2179.	3.2	19
39	Ground and low-lying excited states of propadienylidene (H2C=C=C:) obtained by negative ion photoelectron spectroscopy. Journal of Chemical Physics, 2012, 136, 134312.	1.2	18
40	Electronic States of the Quasilinear Molecule Propargylene (HCCCH) from Negative Ion Photoelectron Spectroscopy. Journal of the American Chemical Society, 2014, 136, 10361-10372.	6.6	18
41	Growth of amorphous and epitaxial ZnSiP₂â€“Si alloys on Si. Journal of Materials Chemistry C, 2018, 6, 2696-2703.	2.7	18
42	Relaxation Dynamics of Highly Vibrationally Excited Picoline Isomers (Evib = 38â€‰300 cm-1) with CO2:â€‰ The Role of State Density in Impulsive Collisions. Journal of Physical Chemistry A, 2006, 110, 3266-3272.	1.1	16
43	Accelerating Hydrogen Absorption and Desorption Rates in Palladium Nanocubes with an Ultrathin Surface Modification. Nano Letters, 2021, 21, 9131-9137.	4.5	15
44	Atomically Thin Metal Sulfides. Journal of the American Chemical Society, 2019, 141, 12121-12127.	6.6	13
45	Interference Provides Clarity: Direct Observation of 2D Materials at Fluidâ€“Fluid Interfaces. ACS Nano, 2020, 14, 777-790.	7.3	12
46	New view of the ICN A continuum using photoelectron spectroscopy of ICNâ¯. Journal of Chemical Physics, 2012, 136, 044313.	1.2	11
47	Anion photoelectron spectroscopy of deprotonatedortho-,meta-, andpara-methylphenol. Journal of Chemical Physics, 2017, 146, 074302.	1.2	11
48	Measuring Photoexcited Free Charge Carriers in Mono- to Few-Layer Transition-Metal Dichalcogenides with Steady-State Microwave Conductivity. Journal of Physical Chemistry Letters, 2020, 11, 99-107.	2.1	11
49	Disentangling oxygen and water vapor effects on optoelectronic properties of monolayer tungsten disulfide. Nanoscale, 2020, 12, 8344-8354.	2.8	11
50	Solvent-mediated charge redistribution in photodissociation of IBrâ¯ and IBrâ¯(CO2). Journal of Chemical Physics, 2011, 134, 184311.	1.2	10
51	Covalent Functionalization of Nickel Phosphide Nanocrystals with Aryl-Diazonium Salts. Chemistry of Materials, 2021, 33, 9652-9665.	3.2	9
52	Alkylation Effects on Strong Collisions of Highly Vibrationally Excited Alkylated Pyridines with CO2â€. Journal of Physical Chemistry A, 2007, 111, 4073-4080.	1.1	8
53	Large Area Atomically Flat Surfaces via Exfoliation of Bulk Bi₂Se₃ Single Crystals. Chemistry of Materials, 2017, 29, 8472-8477.	3.2	8
54	Decoupling Kinetics and Thermodynamics of Interfacial Catalysis at a Chemically Modified Black Silicon Semiconductor Photoelectrode. ACS Energy Letters, 2020, 5, 1848-1855.	8.8	8

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55	Suppressing Auger Recombination in Multiply Excited Colloidal Silicon Nanocrystals with Ligand-Induced Hole Traps. Journal of Physical Chemistry C, 2021, 125, 2565-2574.	1.5	7
56	Probing Activities of Individual Catalytic Nanoflakes by Tunneling Mode of Scanning Electrochemical Microscopy. Journal of Physical Chemistry C, 2021, 125, 25525-25532.	1.5	7
57	Dynamic Mapping of CN Rotation Following Photoexcitation of ICN^{â^'}. Angewandte Chemie - International Edition, 2012, 51, 2651-2653.	7.2	6
58	Stabilizing the heavily-doped and metallic phase of MoS₂ monolayers with surface functionalization. 2D Materials, 2022, 9, 015033.	2.0	5
59	Insights into the Dynamic Interfacial and Bulk Composition of Copper-Modified, Hydrogen-Alloyed, Palladium Nanocubes under Electrocatalytic Conditions. Journal of Physical Chemistry C, 2021, 125, 15487-15495.	1.5	1
60	Electrocatalytic and Optoelectronic Characteristics of Exfoliated Two-Dimensional Titanium Nitride Ti4N3Tx mxene. ECS Meeting Abstracts, 2019, , .	0.0	1
61	ZnSiP2 Thin Film Growth for Si-Based Tandem Photovoltaics. , 2017, , .		0
62	Ammonia Generation from 2D MoS2 Catalysts. ECS Meeting Abstracts, 2021, MA2021-01, 1289-1289.	0.0	0
63	(Invited) Controlling Monolayer and Few-Layer MoS2 and WS2 Optoelectronic and Catalytic Properties. ECS Meeting Abstracts, 2021, MA2021-01, 678-678.	0.0	0
64	Protected Metallic MoS2 Nanosheets Outlast Pristine Metallic MoS2 Nanosheets for Hydrogen Evolution Reaction. ECS Meeting Abstracts, 2018, , .	0.0	0
65	Pseudocapacitive Storage in Nanolayered Ti2NTxmxene Using Mg-Ion Electrolyte. ECS Meeting Abstracts, 2019, , .	0.0	0
66	Charge Generation in Monolayer Transition Metal Dichalcogenides. ECS Meeting Abstracts, 2019, , .	0.0	0
67	(Invited) Tuning Optoelectronic Properties of Transition Metal Dichalcogenides for Hydrogen Generation. ECS Meeting Abstracts, 2019, , .	0.0	0
68	(Invited) Organic/Inorganic Hybrid Interfaces with Swcnts for Energy Harvesting and Conversion. ECS Meeting Abstracts, 2019, , .	0.0	0
69	(Invited) Triplet Energy Transfer at Interfaces between Molecules and Perovskite or Metal Chalcogenide Nanostructures. ECS Meeting Abstracts, 2019, , .	0.0	0
70	(Invited) Controlling Monolayer and Few-Layer MoS2 and WS2 Optoelectronic and Catalytic Properties. ECS Meeting Abstracts, 2020, MA2020-01, 826-826.	0.0	0
71	(Invited) NH3 Generation from 2D MoS2 Catalysts. ECS Meeting Abstracts, 2020, MA2020-01, 1818-1818.	0.0	0
72	Applying Dynamic Strain on Thin Oxide Films Immobilized on a Pseudoelastic Nickel-Titanium Alloy. Journal of Visualized Experiments, 2020, , .	0.2	0

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73	(Invited) N2 Reduction to NH3 Generation Using Transition Metal-Based Catalysts. ECS Meeting Abstracts, 2021, MA2021-02, 1540-1540.	0.0	0
74	Tuning Electrochemical Nitrogen Reduction on Metallic, 2D-MoS2 through Covalent Functionalization. ECS Meeting Abstracts, 2021, MA2021-02, 1541-1541.	0.0	0
75	(Invited) Controlling and Using Optoelectronic Properties of MoS₂ and WS₂ Monolayers. ECS Meeting Abstracts, 2022, MA2022-01, 863-863.	0.0	0