Tracy M Mattox

List of Publications by Year
in descending order

82 papers	6,910 citations	101543 36 h-index	62596 80 g-index
83 all docs	83 docs citations	83 times ranked	10031 citing authors

#	Article	IF	Citations
1	Dimensional Control over Metal Halide Perovskite Crystallization Guided by Active Learning. Chemistry of Materials, 2022, 34, 756-767.	6.7	13
2	Hydrogen Storage Performance of Preferentially Oriented Mg/rGO Hybrids. Chemistry of Materials, 2022, 34, 2963-2971.	6.7	8
3	Covalent Organic Frameworks with Irreversible Linkages via Reductive Cyclization of Imines. Journal of the American Chemical Society, 2022, 144, 9827-9835.	13.7	39
4	Iron(III) Dopant Counterions Affect the Charge-Transport Properties of Poly(Thiophene) and Poly(Dialkoxythiophene) Derivatives. ACS Applied Materials & Interfaces, 2022, 14, 29039-29051.	8.0	5
5	Lightweight wearable thermoelectric cooler with rationally designed flexible heatsink consisting of phase-change material/graphite/silicone elastomer. Journal of Materials Chemistry A, 2021, 9, 15696-15703.	10.3	35
6	Structural and spectroscopic characterization of an einsteinium complex. Nature, 2021, 590, 85-88.	27.8	25
7	Solar Desalination Using Thermally Responsive Ionic Liquids Regenerated with a Photonic Heater. Environmental Science & Technology, 2021, 55, 3260-3269.	10.0	20
8	Melting Point Depression and Phase Identification of Sugar Alcohols Encapsulated in ZIF Nanopores. Journal of Physical Chemistry C, 2021, 125, 10001-10010.	3.1	2
9	Modifying Li⁺ and Anion Diffusivities in Polyacetal Electrolytes: A Pulsed-Field-Gradient NMR Study of Ion Self-Diffusion. Chemistry of Materials, 2021, 33, 4915-4926.	6.7	21
10	Insights into the Mechanism of Methanol Steam Reforming Tandem Reaction over CeO₂ Supported Single-Site Catalysts. Journal of the American Chemical Society, 2021, 143, 12074-12081.	13.7	70
11	Exchange Bias in a Layered Metalâ€“Organic Topological Spin Glass. ACS Central Science, 2021, 7, 1317-1326.	11.3	17
12	Defying Thermodynamics: Stabilization of Alane Within Covalent Triazine Frameworks for Reversible Hydrogen Storage. Angewandte Chemie, 2021, 133, 26019-26028.	2.0	2
13	Defying Thermodynamics: Stabilization of Alane Within Covalent Triazine Frameworks for Reversible Hydrogen Storage. Angewandte Chemie - International Edition, 2021, 60, 25815-25824.	13.8	11
14	Additive Destabilization of Porous Magnesium Borohydride Framework with Coreâ€Shell Structure. Small, 2021, 17, e2101989.	10.0	6
15	Stabilized open metal sites in bimetallic metalâ€“organic framework catalysts for hydrogen production from alcohols. Journal of Materials Chemistry A, 2021, 9, 10869-10881.	10.3	20
16	Interfacial Solar Evaporation by a 3D Graphene Oxide Stalk for Highly Concentrated Brine Treatment. Environmental Science & Technology, 2021, 55, 15435-15445.	10.0	62
17	A Mechanistic Analysis of Phase Evolution and Hydrogen Storage Behavior in Nanocrystalline Mg(BH₄)₂ within Reduced Graphene Oxide. ACS Nano, 2020, 14, 1745-1756.	14.6	29
18	High-Performance, Wearable Thermoelectric Generator Based on a Highly Aligned Carbon Nanotube Sheet. ACS Applied Energy Materials, 2020, 3, 1199-1206.	5.1	43

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19	Enhanced Charge Carrier Transport in 2D Perovskites by Incorporating Single-Walled Carbon Nanotubes or Graphene. ACS Energy Letters, 2020, 5, 109-116.	17.4	17
20	Graphene-polyelectrolyte multilayer membranes with tunable structure and internal charge. Carbon, 2020, 160, 219-227.	10.3	36
21	Sugar-alcohol@ZIF nanocomposites display suppressed phase-change temperatures. Journal of Materials Chemistry A, 2020, 8, 23795-23802.	10.3	9
22	Enhanced and stabilized hydrogen production from methanol by ultrasmall Ni nanoclusters immobilized on defect-rich h-BN nanosheets. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 29442-29452.	7.1	34
23	A nature-inspired hydrogen-bonded supramolecular complex for selective copper ion removal from water. Nature Communications, 2020, 11, 3947.	12.8	86
24	Superselective Removal of Lead from Water by Two-Dimensional MoS₂ Nanosheets and Layer-Stacked Membranes. Environmental Science & Technology, 2020, 54, 12602-12611.	10.0	87
25	Correlating Interlayer Spacing and Separation Capability of Graphene Oxide Membranes in Organic Solvents. ACS Nano, 2020, 14, 6013-6023.	14.6	81
26	Pyrazine-Fused Porous Graphitic Framework-Based Mixed Matrix Membranes for Enhanced Gas Separations. ACS Applied Materials & Interfaces, 2020, 12, 16922-16929.	8.0	19
27	Calcium chloride substitution in sodium borohydride. Journal of Solid State Chemistry, 2020, 290, 121499.	2.9	3
28	Dynamic Covalent Synthesis of Crystalline Porous Graphitic Frameworks. CheM, 2020, 6, 933-944.	11.7	123
29	Adapting the Electron Beam from SEM as a Quantitative Heating Source for Nanoscale Thermal Metrology. Nano Letters, 2020, 20, 3019-3029.	9.1	7
30	Using Additives to Control the Decomposition Temperature of Sodium Borohydride. , 2020, 2, 1-20.		4
31	Molecular insight into the lower critical solution temperature transition of aqueous alkyl phosphonium benzene sulfonates. Communications Chemistry, 2019, 2, .	4.5	22
32	Supercompliant and Soft <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mo stretchy="false">(</mml:mo><mml:msub><mml:mrow><mml:mi>CH</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub><mml:mn></mml	7.8	33
	Physical Review Letters, 2019, 123, 155901.		
33	Runaway Carbon Dioxide Conversion Leads to Enhanced Uptake in a Nanohybrid Form of Porous Magnesium Borohydride. Advanced Materials, 2019, 31, e1904252.	21.0	10
34	Impact of Source Position and Obstructions on Fume Hood Releases. Annals of Work Exposures and Health, 2019, 63, 937-949.	1.4	1
35	Rapid Stoichiometry Control in Cu₂Se Thin Films for Room-Temperature Power Factor Improvement. ACS Applied Energy Materials, 2019, 2, 1517-1525.	5.1	28
36	Hydrogenâ€Bonded Polyimide/Metalâ€Organic Framework Hybrid Membranes for Ultrafast Separations of Multiple Gas Pairs. Advanced Functional Materials, 2019, 29, 1903243.	14.9	78

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37	Chloride influence on the reaction mechanism of lanthanum hexaboride. Journal of Crystal Growth, 2019, 518, 30-33.	1.5	0
38	Edge-Functionalized Graphene Nanoribbon Encapsulation To Enhance Stability and Control Kinetics of Hydrogen Storage Materials. Chemistry of Materials, 2019, 31, 2960-2970.	6.7	26
39	Progress and Perspective: Soft Thermoelectric Materials for Wearable and Internetâ€ofâ€Things Applications. Advanced Electronic Materials, 2019, 5, 1800823.	5.1	71
40	Inâ€Situ/Operando Xâ€ray Characterization of Metal Hydrides. ChemPhysChem, 2019, 20, 1261-1271.	2.1	12
41	Enhanced Forward Osmosis Desalination with a Hybrid Ionic Liquid/Hydrogel Thermoresponsive Draw Agent System. ACS Omega, 2019, 4, 4296-4303.	3.5	25
42	Experimental Phonon Dispersion and Lifetimes of Tetragonal CH3NH3PbI3 Perovskite Crystals. Journal of Physical Chemistry Letters, 2019, 10, 1-6.	4.6	15
43	Modulation of Carrier Type in Nanocrystal-in-Matrix Composites by Interfacial Doping. Chemistry of Materials, 2018, 30, 2544-2549.	6.7	1
44	Tuning the Surface Plasmon Resonance of Lanthanum Hexaboride to Absorb Solar Heat: A Review. Materials, 2018, 11, 2473.	2.9	30
45	Nanostructured Metal Hydrides for Hydrogen Storage. Chemical Reviews, 2018, 118, 10775-10839.	47.7	461
46	Removal and Recovery of Heavy Metal Ions by Two-dimensional MoS₂ Nanosheets: Performance and Mechanisms. Environmental Science & Technology, 2018, 52, 9741-9748.	10.0	177
47	Moving the Plasmon of LaB6 from IR to Near-IR via Eu-Doping. Materials, 2018, 11, 226.	2.9	18
48	Chloride influence on the formation of lanthanum hexaboride: An in-situ diffraction study. Journal of Crystal Growth, 2018, 486, 60-65.	1.5	7
49	An assessment of strategies for the development of solid-state adsorbents for vehicular hydrogen storage. Energy and Environmental Science, 2018, 11, 2784-2812.	30.8	162
50	Design Rules for Selfâ€Assembly of 2D Nanocrystal/Metalâ€“Organic Framework Superstructures. Angewandte Chemie, 2018, 130, 13356-13360.	2.0	1
51	Solution-Processed Cu2Se Nanocrystal Films with Bulk-Like Thermoelectric Performance. Scientific Reports, 2017, 7, 2765.	3.3	24
52	Effects of Size and Structural Defects on the Vibrational Properties of Lanthanum Hexaboride Nanocrystals. ACS Omega, 2017, 2, 2248-2254.	3.5	9
53	Swelling of Graphene Oxide Membranes in Aqueous Solution: Characterization of Interlayer Spacing and Insight into Water Transport Mechanisms. ACS Nano, 2017, 11, 6440-6450.	14.6	552
54	Emerging Scientific and Engineering Opportunities within the Water-Energy Nexus. Joule, 2017, 1, 665-688.	24.0	109

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55	Dual-Channel, Molecular-Sieving Core/Shell ZIF@MOF Architectures as Engineered Fillers in Hybrid Membranes for Highly Selective CO₂ Separation. Nano Letters, 2017, 17, 6752-6758.	9.1	82
56	Nanorod Suprastructures from a Ternary Graphene Oxideâ€“Polymerâ€“CsPbX₃ Perovskite Nanocrystal Composite That Display High Environmental Stability. Nano Letters, 2017, 17, 6759-6765.	9.1	118
57	Hierarchically Controlled Insideâ€Out Doping of Mg Nanocomposites for Moderate Temperature Hydrogen Storage. Advanced Functional Materials, 2017, 27, 1704316.	14.9	72
58	Long-Range Order in Nanocrystal Assemblies Determines Charge Transport of Films. ACS Omega, 2017, 2, 3681-3690.	3.5	10
59	Atomically Thin Interfacial Suboxide Key to Hydrogen Storage Performance Enhancements of Magnesium Nanoparticles Encapsulated in Reduced Graphene Oxide. Nano Letters, 2017, 17, 5540-5545.	9.1	37
60	Anion-mediated negative thermal expansion in lanthanum hexaboride. Solid State Communications, 2017, 265, 47-51.	1.9	11
61	Independent tuning of work function and field enhancement factor in hybrid lanthanum hexaboride-graphene-silicon field emitters. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2017, 35, 062202.	1.2	6
62	Understanding the Aqueous Stability and Filtration Capability of MoS₂ Membranes. Nano Letters, 2017, 17, 7289-7298.	9.1	283
63	Tailoring Polymer Conformation for Nanocrystal Growth: The Role of Chain Length and Solvent. Small, 2017, 13, 1602572.	10.0	6
64	Carrier Scattering at Alloy Nanointerfaces Enhances Power Factor in PEDOT:PSS Hybrid Thermoelectrics. Nano Letters, 2016, 16, 3352-3359.	9.1	93
65	Insight into the Ligand-Mediated Synthesis of Colloidal CsPbBr₃ Perovskite Nanocrystals: The Role of Organic Acid, Base, and Cesium Precursors. ACS Nano, 2016, 10, 7943-7954.	14.6	713
66	Graphene oxide/metal nanocrystal multilaminates as the atomic limit for safe and selective hydrogen storage. Nature Communications, 2016, 7, 10804.	12.8	178
67	Evolution of Vibrational Properties in Lanthanum Hexaboride Nanocrystals. Journal of Physical Chemistry C, 2016, 120, 5188-5195.	3.1	18
68	Enhanced permeation arising from dual transport pathways in hybrid polymerâ€“MOF membranes. Energy and Environmental Science, 2016, 9, 922-931.	30.8	178
69	Chemical Control of Plasmons in Metal Chalcogenide and Metal Oxide Nanostructures. Advanced Materials, 2015, 27, 5830-5837.	21.0	98
70	Bandgap Tunability in Sbâ€Alloyed BiVO₄ Quaternary Oxides as Visible Light Absorbers for Solar Fuel Applications. Advanced Materials, 2015, 27, 6733-6740.	21.0	38
71	Nanocomposite Architecture for Rapid, Spectrally-Selective Electrochromic Modulation of Solar Transmittance. Nano Letters, 2015, 15, 5574-5579.	9.1	179
72	Nanocrystal Superlattice Embedded within an Inorganic Semiconducting Matrix by in Situ Ligand Exchange: Fabrication and Morphology. Chemistry of Materials, 2015, 27, 2755-2758.	6.7	10

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73	Low Temperature Synthesis and Surface Plasmon Resonance of Colloidal Lanthanum Hexaboride (LaB₆) Nanocrystals. Chemistry of Materials, 2015, 27, 6620-6624.	6.7	46
74	Influence of Shape on the Surface Plasmon Resonance of Tungsten Bronze Nanocrystals. Chemistry of Materials, 2014, 26, 1779-1784.	6.7	133
75	Uncovering the intrinsic size dependence of hydriding phase transformations in nanocrystals. Nature Materials, 2013, 12, 905-912.	27.5	116
76	Synergistic enhancement of hydrogen storage and air stability via Mg nanocrystalâ€“polymer interfacial interactions. Energy and Environmental Science, 2013, 6, 3267.	30.8	52
77	Monodisperse Sn Nanocrystals as a Platform for the Study of Mechanical Damage during Electrochemical Reactions with Li. Nano Letters, 2013, 13, 1800-1805.	9.1	134
78	Magnesium nanocrystal-polymer composites: A new platform for designer hydrogen storage materials. Energy and Environmental Science, 2011, 4, 4882.	30.8	105
79	Air-stable magnesium nanocomposites provide rapid and high-capacity hydrogen storage without using heavy-metal catalysts. Nature Materials, 2011, 10, 286-290.	27.5	600
80	Synergism in binary nanocrystal superlattices leads to enhanced p-type conductivity in self-assembled PbTe/Ag2Te thin films. Nature Materials, 2007, 6, 115-121.	27.5	498
81	Stability and Porosity Enhancement through Concurrent Ligand Extension and Secondary Building Unit Stabilization. Inorganic Chemistry, 2006, 45, 7566-7568.	4.0	90
82	Temperature-dependent supramolecular stereoisomerism in porous copper coordination networks based on a designed carboxylate ligand. Chemical Communications, 2005, , 5447.	4.1	176