Matthew R Hauwiller

List of Publications by Year
in descending order

22 papers	684 citations	932766 10 h-index	839053 18 g-index
22 all docs	22 docs citations	22 times ranked	1269 citing authors

#	Article	IF	Citations
1	Structural diversity in binary superlattices self-assembled from polymer-grafted nanocrystals. Nature Communications, 2015, 6, 10052.	5.8	199
2	The Use of Graphene and Its Derivatives for Liquid-Phase Transmission Electron Microscopy of Radiation-Sensitive Specimens. Nano Letters, 2017, 17, 414-420.	4.5	120
3	Gold Nanocrystal Etching as a Means of Probing the Dynamic Chemical Environment in Graphene Liquid Cell Electron Microscopy. Journal of the American Chemical Society, 2019, 141, 4428-4437.	6.6	65
4	Unraveling Kinetically-Driven Mechanisms of Gold Nanocrystal Shape Transformations Using Graphene Liquid Cell Electron Microscopy. Nano Letters, 2018, 18, 5731-5737.	4.5	64
5	Dynamics and Removal Pathway of Edge Dislocations in Imperfectly Attached PbTe Nanocrystal Pairs: Toward Design Rules for Oriented Attachment. ACS Nano, 2018, 12, 3178-3189.	7.3	43
6	Dynamics of Nanoscale Dendrite Formation in Solution Growth Revealed Through in Situ Liquid Cell Electron Microscopy. Nano Letters, 2018, 18, 6427-6433.	4.5	38
7	Tracking the Effects of Ligands on Oxidative Etching of Gold Nanorods in Graphene Liquid Cell Electron Microscopy. ACS Nano, 2020, 14, 10239-10250.	7.3	35
8	Redox and Photoinduced Electron-Transfer Properties in Short Distance Organoboryl Ferrocene-Subphthalocyanine Dyads. Inorganic Chemistry, 2014, 53, 9336-9347.	1.9	31
9	Using Graphene Liquid Cell Transmission Electron Microscopy to Study in Situ Nanocrystal Etching. Journal of Visualized Experiments, 2018, , .	0.2	30
10	Nucleation, growth, and superlattice formation of nanocrystals observed in liquid cell transmission electron microscopy. MRS Bulletin, 2020, 45, 713-726.	1.7	19
11	Translatable Research Group-Based Undergraduate Research Program for Lower-Division Students. Journal of Chemical Education, 2019, 96, 1881-1890.	1.1	14
12	Real time imaging of two-dimensional iron oxide spherulite nanostructure formation. Nano Research, 2019, 12, 2889-2893.	5.8	8
13	Real-time observation of dynamic structure of liquid-vapor interface at nanometer resolution in electron irradiated sodium chloride crystals. Scientific Reports, 2020, 10, 8596.	1.6	6
14	A Universal Scripting Engine for Transmission Electron Microscopy. Microscopy and Microanalysis, 2020, 26, 2958-2959.	0.2	5
15	Research Group-Led Undergraduate Research Program: Analyzing and Improving a Versatile Springboard for First-Year Undergraduates. Journal of Chemical Education, 2022, 99, 799-809.	1.1	4
16	In Situ TEM Etching of Gold Nanocrystals: Elucidating the Shape Transformation Mechanisms and Chemistry of the Graphene Liquid Cell. Microscopy and Microanalysis, 2019, 25, 1412-1413.	0.2	1
17	Expanding the Dimensions of a Small, Two-Dimensional Diffraction Detector. Microscopy and Microanalysis, 2020, 26, 938-943.	0.2	1
18	Cathodoluminescence of silicon doped aluminum nitride with scanning transmission electron microscopy. APL Materials, 2020, 8, .	2.2	1

#	Article	IF	Citations
19	Dynamics and Removal Pathway of Edge Dislocations in Imperfectly Attached Nanocrystal Pairs; Towards Design Rules for Oriented Attachment. Microscopy and Microanalysis, 2018, 24, 1656-1657.	0.2	0
20	Using Graphene Liquid Cell Electron Microscopy to Elucidate Nanocrystal Etching Mechanisms. Microscopy and Microanalysis, 2018, 24, 246-247.	0.2	0
21	Liquid Cell TEM Study of Nucleation and Growth of Dendrites. Microscopy and Microanalysis, 2018, 24, 250-251.	0.2	0
22	Mapping Dopant Defect Complexes at the Nano and Atomic Scale for Quantum Computing. Microscopy and Microanalysis, 2020, 26, 2562-2564.	0.2	0