B Layla Mehdi

List of Publications by Year
in descending order

44 papers	2,274 citations	331670 21 h-index	302126 39 g-index
46 all docs	46 docs citations	46 times ranked	3738 citing authors

#	Article	IF	Citations
1	Bulk fatigue induced by surface reconstruction in layered Ni-rich cathodes for Li-ion batteries. Nature Materials, 2021, 20, 84-92.	27.5	349
2	Bottom-up construction of a superstructure in a porous uranium-organic crystal. Science, 2017, 356, 624-627.	12.6	286
3	Methane Oxidation to Methanol Catalyzed by Cu-Oxo Clusters Stabilized in NU-1000 Metalâ€"Organic Framework. Journal of the American Chemical Society, 2017, 139, 10294-10301.	13.7	282
4	Observation and Quantification of Nanoscale Processes in Lithium Batteries by Operando Electrochemical (S)TEM. Nano Letters, 2015, 15, 2168-2173.	9.1	264
5	Probing the Degradation Mechanisms in Electrolyte Solutions for Li-Ion Batteries by in Situ Transmission Electron Microscopy. Nano Letters, 2014, 14, 1293-1299.	9.1	137
6	Selective Methane Oxidation to Methanol on Cu-Oxo Dimers Stabilized by Zirconia Nodes of an NU-1000 Metalâ€"Organic Framework. Journal of the American Chemical Society, 2019, 141, 9292-9304.	13.7	131
7	Bridging Zirconia Nodes within a Metalâ€"Organic Framework via Catalytic Ni-Hydroxo Clusters to Form Heterobimetallic Nanowires. Journal of the American Chemical Society, 2017, 139, 10410-10418.	13.7	74
8	A Bismuth Metalâ€"Organic Framework as a Contrast Agent for X-ray Computed Tomography. ACS Applied Bio Materials, 2019, 2, 1197-1203.	4.6	68
9	The Impact of Li Grain Size on Coulombic Efficiency in Li Batteries. Scientific Reports, 2016, 6, 34267.	3.3	67
10	Molecular Storage of Mg Ions with Vanadium Oxide Nanoclusters. Advanced Functional Materials, 2016, 26, 3446-3453.	14.9	65
11	A sub-sampled approach to extremely low-dose STEM. Applied Physics Letters, 2018, 112, .	3.3	62
12	How to speed up ion transport in nanopores. Nature Communications, 2020, 11, 6085.	12.8	57
13	<i>In-Situ</i> Electrochemical Transmission Electron Microscopy for Battery Research. Microscopy and Microanalysis, 2014, 20, 484-492.	0.4	45
14	Electrolyte Reactivity at the Charged Ni-Rich Cathode Interface and Degradation in Li-Ion Batteries. ACS Applied Materials & Interfaces, 2022, 14, 13206-13222.	8.0	45
15	Divalent Ion Selectivity in Capacitive Deionization with Vanadium Hexacyanoferrate: Experiments and Quantumâ€Chemical Computations. Advanced Functional Materials, 2021, 31, 2105203.	14.9	38
16	Exceptional Fluorocarbon Uptake with Mesoporous Metalâ€"Organic Frameworks for Adsorption-Based Cooling Systems. ACS Applied Energy Materials, 2018, 1, 5853-5858.	5.1	35
17	High Electrochemical Seawater Desalination Performance Enabled by an Iodide Redox Electrolyte Paired with a Sodium Superionic Conductor. ACS Sustainable Chemistry and Engineering, 2019, 7, 10132-10142.	6.7	32
18	Minimising damage in high resolution scanning transmission electron microscope images of nanoscale structures and processes. Nanoscale, 2020, 12, 21248-21254.	5.6	32

#	Article	IF	Citations
19	Observing the colloidal stability of iron oxide nanoparticles<i>in situ</i>. Nanoscale, 2019, 11, 13098-13107.	5.6	30
20	Controlling the spatio-temporal dose distribution during STEM imaging by subsampled acquisition: In-situ observations of kinetic processes in liquids. Applied Physics Letters, 2019, 115, 063102.	3.3	27
21	Liquid Cell Transmission Electron Microscopy Sheds Light on The Mechanism of Palladium Electrodeposition. Langmuir, 2019, 35, 862-869.	3.5	23
22	<i>In situ</i> electrochemical scanning/transmission electron microscopy of electrodeâ€“electrolyte interfaces. MRS Bulletin, 2020, 45, 738-745.	3.5	19
23	Mechanism of Na-Ion Storage in BiOCl Anode and the Sodium-Ion Battery Formation. Journal of Physical Chemistry C, 2019, 123, 11500-11507.	3.1	18
24	Synergistic effect of Co catalysts with atomically dispersed CoN_{<i>x</i>} active sites on ammonia borane hydrolysis for hydrogen generation. Journal of Materials Chemistry A, 2022, 10, 5580-5592.	10.3	17
25	Controlling radiolysis chemistry on the nanoscale in liquid cell scanning transmission electron microscopy. Physical Chemistry Chemical Physics, 2021, 23, 17766-17773.	2.8	15
26	DRILL Interface Makes Ion Soft Landing Broadly Accessible for Energy Science and Applications. Batteries and Supercaps, 2018, 1, 97-101.	4.7	13
27	Growth Kinetics of Cobalt Carbonate Nanoparticles Revealed by Liquid-Phase Scanning Transmission Electron Microscopy. Journal of Physical Chemistry C, 2019, 123, 25448-25455.	3.1	13
28	The Complex Role of Aluminium Contamination in Nickelâ€Rich Layered Oxide Cathodes for Lithiumâ€Ion Batteries. Batteries and Supercaps, 2021, 4, 1813-1820.	4.7	7
29	Understanding the Effect of Additives in Li-ion and Li-Sulfur Batteries by Operando ec- (S)TEM. Microscopy and Microanalysis, 2016, 22, 22-23.	0.4	5
30	Applying shot boundary detection for automated crystal growth analysis during in situ transmission electron microscope experiments. Advanced Structural and Chemical Imaging, 2017, 3, 2.	4.0	4
31	Enhanced Longâ€Term Cathode Stability by Tuning Interfacial Nanocomposite for Intermediate Temperature Solid Oxide Fuel Cells. Advanced Materials Interfaces, 2022, 9, .	3.7	3
32	Event detection for undersampled electron microscopy experiments: A control chart case study. Quality Engineering, 2020, 32, 244-254.	1.1	2
33	Quantifying the Effects of Beam Overlap on Radiation Damage via Radiolysis Products in the <i>In-situ</i> Liquid (S)TEM Cell. Microscopy and Microanalysis, 2020, 26, 2572-2574.	0.4	2
34	Understanding the Effect of Additives in Li-Sulfur Batteries by Operando ec- (S)TEM. Microscopy and Microanalysis, 2016, 22, 836-837.	0.4	1
35	Imaging Electrochemical Processes in Li Batteries by Operando STEM. Microscopy and Microanalysis, 2017, 23, 1970-1971.	0.4	1
36	Multi-Modal Characterization of New Battery Technologies by Operando ec-STEM. Microscopy and Microanalysis, 2017, 23, 886-887.	0.4	1

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37	Manipulation and Immobilization of Nanostructures for In-situ STEM. Microscopy and Microanalysis, 2017, 23, 942-943.	0.4	1
38	Quantitative Mapping of Nanoscale Chemical Dynamics in Subâ€Sampled Operando (S)TEM Images using Spatioâ€Temporal Analytics. ChemCatChem, 2018, 10, 3115-3120.	3.7	1
39	Understanding and Controlling E-beam Damage in Operando EC-STEM. Microscopy and Microanalysis, 2020, 26, 3068-3069.	0.4	1
40	Direct observation of breathing phenomenon and phase transformation in Ni-rich cathode materials by in situ TEM. Microscopy and Microanalysis, 2021, 27, 1254-1255.	0.4	1
41	Quantification of Electrochemical Nanoscale Processes in Lithium Batteries by Operando ec-(S)TEM. Microscopy and Microanalysis, 2015, 21, 1917-1918.	0.4	0
42	Understanding Degradation Processes in MXene Anodes by In-situ Liquid Cell STEM. Microscopy and Microanalysis, 2021, 27, 1976-1977.	0.4	0
43	The Complex Role of Aluminium Contamination in Nickelâ€Rich Layered Oxide Cathodes for Lithiumâ€Ion Batteries. Batteries and Supercaps, 2021, 4, 1783-1784.	4.7	0
44	Synthesis of Metal Nanoparticles Supported on Carbon Nanotube with Doped Co and N Atoms and its Catalytic Applications in Hydrogen Production. Journal of Visualized Experiments, 2021, , .	0.3	0