B Layla Mehdi

List of Publications by Year
in descending order

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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	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
2	Enhanced Longâ€Term Cathode Stability by Tuning Interfacial Nanocomposite for Intermediate Temperature Solid Oxide Fuel Cells. Advanced Materials Interfaces, 2022, 9, .	3.7	3
3	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
4	Bulk fatigue induced by surface reconstruction in layered Ni-rich cathodes for Li-ion batteries. Nature Materials, 2021, 20, 84-92.	27.5	349
5	Controlling radiolysis chemistry on the nanoscale in liquid cell scanning transmission electron microscopy. Physical Chemistry Chemical Physics, 2021, 23, 17766-17773.	2.8	15
6	Divalent Ion Selectivity in Capacitive Deionization with Vanadium Hexacyanoferrate: Experiments and Quantumâ€Chemical Computations. Advanced Functional Materials, 2021, 31, 2105203.	14.9	38
7	Understanding Degradation Processes in MXene Anodes by In-situ Liquid Cell STEM. Microscopy and Microanalysis, 2021, 27, 1976-1977.	0.4	0
8	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
9	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
10	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
11	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
12	Event detection for undersampled electron microscopy experiments: A control chart case study. Quality Engineering, 2020, 32, 244-254.	1.1	2
13	Minimising damage in high resolution scanning transmission electron microscope images of nanoscale structures and processes. Nanoscale, 2020, 12, 21248-21254.	5.6	32
14	How to speed up ion transport in nanopores. Nature Communications, 2020, 11, 6085.	12.8	57
15	<i>In situ</i> electrochemical scanning/transmission electron microscopy of electrodeâ€“electrolyte interfaces. MRS Bulletin, 2020, 45, 738-745.	3.5	19
16	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
17	Understanding and Controlling E-beam Damage in Operando EC-STEM. Microscopy and Microanalysis, 2020, 26, 3068-3069.	0.4	1
18	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

#	Article	IF	Citations
19	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
20	Observing the colloidal stability of iron oxide nanoparticles<i>in situ</i>. Nanoscale, 2019, 11, 13098-13107.	5.6	30
21	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
22	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
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	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
25	Liquid Cell Transmission Electron Microscopy Sheds Light on The Mechanism of Palladium Electrodeposition. Langmuir, 2019, 35, 862-869.	3.5	23
26	A sub-sampled approach to extremely low-dose STEM. Applied Physics Letters, 2018, 112, .	3.3	62
27	Exceptional Fluorocarbon Uptake with Mesoporous Metalâ€“Organic Frameworks for Adsorption-Based Cooling Systems. ACS Applied Energy Materials, 2018, 1, 5853-5858.	5.1	35
28	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
29	DRILL Interface Makes Ion Soft Landing Broadly Accessible for Energy Science and Applications. Batteries and Supercaps, 2018, 1, 97-101.	4.7	13
30	Bottom-up construction of a superstructure in a porous uranium-organic crystal. Science, 2017, 356, 624-627.	12.6	286
31	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
32	Imaging Electrochemical Processes in Li Batteries by Operando STEM. Microscopy and Microanalysis, 2017, 23, 1970-1971.	0.4	1
33	Multi-Modal Characterization of New Battery Technologies by Operando ec-STEM. Microscopy and Microanalysis, 2017, 23, 886-887.	0.4	1
34	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
35	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
36	Manipulation and Immobilization of Nanostructures for In-situ STEM. Microscopy and Microanalysis, 2017, 23, 942-943.	0.4	1

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37	Molecular Storage of Mg Ions with Vanadium Oxide Nanoclusters. Advanced Functional Materials, 2016, 26, 3446-3453.	14.9	65
38	Understanding the Effect of Additives in Li-Sulfur Batteries by Operando ec- (S)TEM. Microscopy and Microanalysis, 2016, 22, 836-837.	0.4	1
39	The Impact of Li Grain Size on Coulombic Efficiency in Li Batteries. Scientific Reports, 2016, 6, 34267.	3.3	67
40	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
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	Observation and Quantification of Nanoscale Processes in Lithium Batteries by Operando Electrochemical (S)TEM. Nano Letters, 2015, 15, 2168-2173.	9.1	264
43	<i>In-Situ</i> Electrochemical Transmission Electron Microscopy for Battery Research. Microscopy and Microanalysis, 2014, 20, 484-492.	0.4	45
44	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