Andrea M Bruck

List of Publications by Year
in descending order

#	Article	IF	Citations
1	A Tunable 3D Nanostructured Conductive Gel Framework Electrode for Highâ€Performance Lithium Ion Batteries. Advanced Materials, 2017, 29, 1603922.	21.0	175
2	Nanostructured Conductive Polymer Gels as a General Framework Material To Improve Electrochemical Performance of Cathode Materials in Li-Ion Batteries. Nano Letters, 2017, 17, 1906-1914.	9.1	131
3	Nanocrystalline iron oxide based electroactive materials in lithium ion batteries: the critical role of crystallite size, morphology, and electrode heterostructure on battery relevant electrochemistry. Inorganic Chemistry Frontiers, 2016, 3, 26-40.	6.0	83
4	Two-Dimensional Holey Nanoarchitectures Created by Confined Self-Assembly of Nanoparticles <i>via</i> Block Copolymers: From Synthesis to Energy Storage Property. ACS Nano, 2018, 12, 820-828.	14.6	62
5	Ex Situ and Operando XRD and XAS Analysis of MoS₂: A Lithiation Study of Bulk and Nanosheet Materials. ACS Applied Energy Materials, 2019, 2, 7635-7646.	5.1	42
6	Investigation of Structural Evolution of Li_{1.1}V₃O₈ by <i>In Situ</i> X-ray Diffraction and Density Functional Theory Calculations. Chemistry of Materials, 2017, 29, 2364-2373.	6.7	40
7	Magnetite in the unequilibrated <scp>CK</scp> chondrites: Implications for metamorphism and new insights into the relationship between the <scp>CV</scp> and <scp>CK</scp> chondrites. Meteoritics and Planetary Science, 2016, 51, 1701-1720.	1.6	38
8	Understanding aggregation hindered Li-ion transport in transition metal oxide at mesoscale. Energy Storage Materials, 2019, 19, 439-445.	18.0	32
9	Nonplanar Electrode Architectures for Ultrahigh Areal Capacity Batteries. ACS Energy Letters, 2019, 4, 271-275.	17.4	32
10	Visualization of structural evolution and phase distribution of a lithium vanadium oxide (Li_{1.1}V₃O₈) electrode via an operando and in situ energy dispersive X-ray diffraction technique. Physical Chemistry Chemical Physics, 2017, 19, 14160-14169.	2.8	25
11	Operando EDXRD Study of Allâ€Solidâ€State Lithium Batteries Coupling Thioantimonate Superionic Conductors with Metal Sulfide. Advanced Energy Materials, 2021, 11, 2002861.	19.5	25
12	Energy dispersive X-ray diffraction (EDXRD) for operando materials characterization within batteries. Physical Chemistry Chemical Physics, 2020, 22, 20972-20989.	2.8	24
13	Isothermal Microcalorimetry: Insight into the Impact of Crystallite Size and Agglomeration on the Lithiation of Magnetite, Fe₃O₄. ACS Applied Materials & Interfaces, 2019, 11, 7074-7086.	8.0	19
14	Operando Study of LiV₃O₈Cathode: Coupling EDXRD Measurements to Simulations. Journal of the Electrochemical Society, 2018, 165, A371-A379.	2.9	16
15	Probing enhanced lithium-ion transport kinetics in 2D holey nanoarchitectured electrodes. Nano Futures, 2018, 2, 035008.	2.2	15
16	Bismuth Enables the Formation of Disordered Birnessite in Rechargeable Alkaline Batteries. Journal of the Electrochemical Society, 2020, 167, 110514.	2.9	15
17	Hybrid Ag₂VO₂PO₄/CF_xas a High Capacity and Energy Cathode for Primary Batteries. Journal of the Electrochemical Society, 2017, 164, A2457-A2467.	2.9	14
18	(De)lithiation of spinel ferrites Fe₃O₄, MgFe₂O₄, and ZnFe₂O₄: a combined spectroscopic, diffraction and theory study. Physical Chemistry Chemical Physics, 2020, 22, 26200-26215.	2.8	13

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19	Rechargeable Alkaline Zinc/Copper Oxide Batteries. ACS Applied Energy Materials, 2021, 4, 7073-7082.	5.1	13
20	Energy-Dispersive X-ray Diffraction: Operando Visualization of Electrochemical Activity of Thick Electrodes. Journal of Physical Chemistry C, 2019, 123, 18834-18843.	3.1	12
21	Enhanced Electrochemical Stability of Sulfideâ€Based LiNi_{0.8}Mn_{0.1}Co_{0.1}O₂ Allâ€Solidâ€State Batteries by Ti Surface Doping. Batteries and Supercaps, 2021, 4, 529-535.	4.7	11
22	Temporally and Spatially Resolved Visualization of Electrochemical Conversion: Monitoring Phase Distribution During Lithiation of Magnetite (Fe₃O₄) Electrodes. ACS Applied Energy Materials, 2019, 2, 2561-2569.	5.1	10
23	Li/Ag₂VO₂PO₄ batteries: the roles of composite electrode constituents on electrochemistry. RSC Advances, 2016, 6, 106887-106898.	3.6	9
24	Energy Dispersive X-ray Diffraction (EDXRD) of Li1.1V3O8 Electrochemical Cell. MRS Advances, 2017, 2, 401-406.	0.9	8
25	Reversible Electrochemical Lithium-Ion Insertion into the Rhenium Cluster Chalcogenideâ€"Halide Re₆Se₈Cl₂. Inorganic Chemistry, 2018, 57, 4812-4815.	4.0	8
26	Synthesis and Characterization of 2 Ã— 4 Tunnel Structured Manganese Dioxides as Cathodes in Rechargeable Li, Na, and Mg Batteries. Journal of the Electrochemical Society, 2019, 166, A670-A678.	2.9	8
27	The Systematic Refinement for the Phase Change and Conversion Reactions Arising from the Lithiation of Magnetite Nanocrystals. Advanced Functional Materials, 2020, 30, 1907337.	14.9	8
28	Deliberately Designed Atomic-Level Silver-Containing Interface Results in Improved Rate Capability and Utilization of Silver Hollandite for Lithium-Ion Storage. ACS Applied Materials & Interfaces, 2018, 10, 400-407.	8.0	5
29	Rate Dependent Multi-Mechanism Discharge of Ag_{0.50}VOPO₄Â·1.8H₂O: Insights from In Situ Energy Dispersive X-ray Diffraction. Journal of the Electrochemical Society, 2017, 164, A6007-A6016.	2.9	4
30	Tomographic 3D Analysis of Reduction Displacement Reaction with Associated Formation of a Conductive Network in High Energy Primary Batteries. Journal of the Electrochemical Society, 2019, 166, A3210-A3216.	2.9	4
31	High capacity vanadium oxide electrodes: effective recycling through thermal treatment. Sustainable Energy and Fuels, 2019, 3, 2615-2626.	4.9	4
32	Octa-Î¼3-selenido-pentakis(triethylphosphane-ÎºP)(trimethylacetonitrile-ÎºN)-octahedro-hexarhenium(III) bis(hexafluoridoantimonate) trimethylacetonitrile monosolvate. Acta Crystallographica Section E: Structure Reports Online, 2014, 70, m242-m243.	0.2	1
33	Conductive Polymers: A Tunable 3D Nanostructured Conductive Gel Framework Electrode for Highâ€Performance Lithium Ion Batteries (Adv. Mater. 22/2017). Advanced Materials, 2017, 29, .	21.0	1
34	The Importance of Combined Spatio-Temporal Characterization: From in situ to operando Diffraction Measurements of Li/Li1.1V3O8 Batteries. Microscopy and Microanalysis, 2018, 24, 1478-1479.	0.4	0
35	(Invited) Bismuth Enables Formation of Disordered Birnessite in Rechargeable Alkaline Batteries. ECS Meeting Abstracts, 2020, MA2020-02, 1036-1036.	0.0	0
36	(Invited, Digital Presentation) The Discovery and Development of Rechargeable Zn/CuO Batteries. ECS Meeting Abstracts, 2022, MA2022-01, 459-459.	0.0	0