JenniferÂ l M Rupp

List of Publications by Year
in descending order

56 papers	3,746 citations	126907 33 h-index	155660 55 g-index
57 all docs	57 docs citations	57 times ranked	4555 citing authors

#	Article	IF	Citations
1	Processing thin but robust electrolytes for solid-state batteries. Nature Energy, 2021, 6, 227-239.	39.5	328
2	Solidâ€State Liâ€“Metal Batteries: Challenges and Horizons of Oxide and Sulfide Solid Electrolytes and Their Interfaces. Advanced Energy Materials, 2021, 11, .	19.5	312
3	A review of defect structure and chemistry in ceria and its solid solutions. Chemical Society Reviews, 2020, 49, 554-592.	38.1	298
4	Interfaceâ€Engineered Allâ€Solidâ€State Liâ€Ion Batteries Based on Garnetâ€Type Fast Li⁺ Conductors. Advanced Energy Materials, 2016, 6, 1600736.	19.5	268
5	Perovskite oxides â€“ a review on a versatile material class for solar-to-fuel conversion processes. Journal of Materials Chemistry A, 2017, 5, 11983-12000.	10.3	230
6	How Does Moisture Affect the Physical Property of Memristance for Anionicâ€“Electronic Resistive Switching Memories?. Advanced Functional Materials, 2015, 25, 5117-5125.	14.9	147
7	A low ride on processing temperature for fast lithium conduction in garnet solid-state battery films. Nature Energy, 2019, 4, 475-483.	39.5	144
8	A shortcut to garnet-type fast Li-ion conductors for all-solid state batteries. Journal of Materials Chemistry A, 2015, 3, 18636-18648.	10.3	114
9	Kinetics of CO₂ Reduction over Nonstoichiometric Ceria. Journal of Physical Chemistry C, 2015, 119, 16452-16461.	3.1	114
10	Design of Oxygen Vacancy Configuration for Memristive Systems. ACS Nano, 2017, 11, 8881-8891.	14.6	108
11	All ceramic cathode composite design and manufacturing towards low interfacial resistance for garnet-based solid-state lithium batteries. Energy and Environmental Science, 2020, 13, 4930-4945.	30.8	108
12	Roadmap on emerging hardware and technology for machine learning. Nanotechnology, 2021, 32, 012002.	2.6	104
13	Glassâ€Type Polyamorphism in Liâ€Garnet Thin Film Solid State Battery Conductors. Advanced Energy Materials, 2018, 8, 1702265.	19.5	81
14	Lithium-film ceramics for solid-state lithionic devices. Nature Reviews Materials, 2021, 6, 313-331.	48.7	80
15	A Microdot Multilayer Oxide Device: Let Us Tune the Strain-Ionic Transport Interaction. ACS Nano, 2014, 8, 5032-5048.	14.6	78
16	Uncovering Two Competing Switching Mechanisms for Epitaxial and Ultrathin Strontium Titanate-Based Resistive Switching Bits. ACS Nano, 2015, 9, 10737-10748.	14.6	74
17	Charging sustainable batteries. Nature Sustainability, 2022, 5, 176-178.	23.7	70
18	Scalable Oxygenâ€Ion Transport Kinetics in Metalâ€Oxide Films: Impact of Thermally Induced Lattice Compaction in Acceptor Doped Ceria Films. Advanced Functional Materials, 2014, 24, 1562-1574.	14.9	65

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19	Investigating the all-solid-state batteries based on lithium garnets and a high potential cathode â€“ LiMn_{1.5}Ni_{0.5}O₄. Nanoscale, 2016, 8, 18412-18420.	5.6	63
20	A Simple and Fast Electrochemical CO₂ Sensor Based on Li₇La₃Zr₂O₁₂ for Environmental Monitoring. Advanced Materials, 2018, 30, e1804098.	21.0	61
21	Crystallization and Grain Growth Kinetics for Precipitationâ€Based Ceramics: A Case Study on Amorphous Ceria Thin Films from Spray Pyrolysis. Advanced Functional Materials, 2009, 19, 2790-2799.	14.9	56
22	Modifying La_{0.6}Sr_{0.4}MnO₃ Perovskites with Cr Incorporation for Fast Isothermal CO₂â€Splitting Kinetics in Solarâ€Driven Thermochemical Cycles. Advanced Energy Materials, 2019, 9, 1803886.	19.5	55
23	Accelerated Ionic Motion in Amorphous Memristor Oxides for Nonvolatile Memories and Neuromorphic Computing. Advanced Functional Materials, 2019, 29, 1804782.	14.9	51
24	Lithium Titanate Anode Thin Films for Liâ€Ion Solid State Battery Based on Garnets. Advanced Functional Materials, 2018, 28, 1800879.	14.9	45
25	Timeâ€“Temperatureâ€“Transformation (TTT) Diagrams for Crystallization of Metal Oxide Thin Films. Advanced Functional Materials, 2010, 20, 2807-2814.	14.9	43
26	Lithiumâ€Battery Anode Gains Additional Functionality for Neuromorphic Computing through Metalâ€“Insulator Phase Separation. Advanced Materials, 2020, 32, e1907465.	21.0	43
27	Engineering disorder in precipitation-based nano-scaled metal oxide thin films. Physical Chemistry Chemical Physics, 2010, 12, 11114.	2.8	42
28	La_{0.6}Sr_{0.4}Cr_{0.8}Co_{0.2}O₃Perovskite Decorated with Exsolved Co Nanoparticles for Stable CO₂Splitting and Syngas Production. ACS Applied Energy Materials, 2020, 3, 4569-4579.	5.1	41
29	Role of Associated Defects in Oxygen Ion Conduction and Surface Exchange Reaction for Epitaxial Samaria-Doped Ceria Thin Films as Catalytic Coatings. ACS Applied Materials & Interfaces, 2016, 8, 14613-14621.	8.0	39
30	Modeling Thermochemical Solarâ€toâ€Fuel Conversion: CALPHAD for Thermodynamic Assessment Studies of Perovskites, Exemplified for (La,Sr)MnO₃. Advanced Energy Materials, 2017, 7, 1601086.	19.5	39
31	Microstructures of YSZ and CGO Thin Films Deposited by Spray Pyrolysis: Influence of Processing Parameters on the Porosity. Advanced Functional Materials, 2012, 22, 3509-3518.	14.9	35
32	Crystallization and Microstructure of Yttriaâ€Stabilizedâ€Zirconia Thin Films Deposited by Spray Pyrolysis. Advanced Functional Materials, 2011, 21, 3967-3975.	14.9	34
33	Designing Strained Interface Heterostructures for Memristive Devices. Advanced Materials, 2017, 29, 1605049.	21.0	33
34	In Situ Method Correlating Raman Vibrational Characteristics to Chemical Expansion via Oxygen Nonstoichiometry of Perovskite Thin Films. Advanced Materials, 2019, 31, e1902493.	21.0	33
35	Toward Controlling Filament Size and Location for Resistive Switches via Nanoparticle Exsolution at Oxide Interfaces. Small, 2020, 16, e2003224.	10.0	27
36	Impact of enhanced oxide reducibility on rates of solar-driven thermochemical fuel production. MRS Communications, 2017, 7, 873-878.	1.8	26

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37	A Ceramicâ€Electrolyte Glucose Fuel Cell for Implantable Electronics. Advanced Materials, 2022, 34, e2109075.	21.0	25
38	An Investigation of Chemoâ€Mechanical Phenomena and Li Metal Penetration in Allâ€Solidâ€State Lithium Metal Batteries Using In Situ Optical Curvature Measurements. Advanced Energy Materials, 2022, 12, .	19.5	24
39	When Memristance Crosses the Path with Humidity Sensingâ€"About the Importance of Protons and Its Opportunities in Valence Change Memristors. Advanced Electronic Materials, 2018, 4, 1800282.	5.1	23
40	Solvent-Mediated Synthesis of Amorphous Li₃PS₄/Polyethylene Oxide Composite Solid Electrolytes with High Li⁺ Conductivity. Chemistry of Materials, 2020, 32, 8789-8797.	6.7	21
41	Ionic Conductivity of Nanocrystalline and Amorphous Li₁₀GeP₂S₁₂: The Detrimental Impact of Local Disorder on Ion Transport. Journal of the American Chemical Society, 2022, 144, 9597-9609.	13.7	21
42	Oxygen Exchange in Dual-Phase La_{0.65}Sr_{0.35}MnO₃â€“CeO₂ Composites for Solar Thermochemical Fuel Production. ACS Applied Materials & Interfaces, 2020, 12, 32622-32632.	8.0	20
43	Photo-enhanced ionic conductivity across grain boundaries in polycrystalline ceramics. Nature Materials, 2022, 21, 438-444.	27.5	19
44	Epitaxial Thin Films as a Model System for Li-Ion Conductivity in Li₄Ti₅O₁₂. ACS Applied Materials & Interfaces, 2018, 10, 44494-44500.	8.0	17
45	A sinter-free future for solid-state battery designs. Energy and Environmental Science, 2022, 15, 2927-2936.	30.8	15
46	Investigation of the Eightwise Switching Mechanism and Its Suppression in SrTiO 3 Modulated by Humidity and Interchanged Top and Bottom Platinum and LaNiO 3 Electrode Contacts. Advanced Electronic Materials, 2019, 5, 1800566.	5.1	12
47	High energy and long cycles. Nature Energy, 2020, 5, 278-279.	39.5	12
48	Widening the Range of Trackable Environmental and Health Pollutants for Liâ€Garnetâ€Based Sensors. Advanced Materials, 2021, 33, e2100314.	21.0	10
49	Careful Choices in Low Temperature Ceramic Processing and Slow Hydration Kinetics Can Affect Proton Conduction in Ceria. Advanced Functional Materials, 2021, 31, 2009630.	14.9	10
50	Deposition parameters and Raman crystal orientation measurements of ceria thin films deposited by spray pyrolysis. Journal of Materials Chemistry A, 2022, 10, 8898-8910.	10.3	10
51	Solid State Batteries: Solidâ€State Liâ€"Metal Batteries: Challenges and Horizons of Oxide and Sulfide Solid Electrolytes and Their Interfaces (Adv. Energy Mater. 1/2021). Advanced Energy Materials, 2021, 11, 2170002.	19.5	8
52	Editorial for the JECR special issue on resistive switching: Oxide materials, mechanisms, and devices. Journal of Electroceramics, 2017, 39, 1-3.	2.0	4
53	Design of triple and quadruple phase boundaries and chemistries for environmental SO₂ electrochemical sensing. Journal of Materials Chemistry A, 2021, 9, 14691-14699.	10.3	3
54	Impact of Oxygen Nonâ€Stoichiometry on Nearâ€Ambient Temperature Ionic Mobility in Polaronic Mixedâ€Ionicâ€Electronic Conducting Thin Films. Advanced Functional Materials, 2021, 31, 2005640.	14.9	2

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55	Editorial for the JECR special issue on all solid-state batteries. Journal of Electroceramics, 2017, 38, 125-127.	2.0	0
56	Introduction to the special issue in honour of Prof. John Kilnerâ€™s 75th birthday. Journal of Materials Chemistry A, 2022, 10, 2149-2151.	10.3	0