

JenniferÂ l M Rupp

List of Publications by Year in descending order

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56
papers

3,746
citations

126907

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155660

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all docs

57
docs citations

57
times ranked

4555
citing authors

#	ARTICLE	IF	CITATIONS
1	Photo-enhanced ionic conductivity across grain boundaries in polycrystalline ceramics. <i>Nature Materials</i> , 2022, 21, 438-444.	27.5	19
2	Introduction to the special issue in honour of Prof. John Kilner's 75th birthday. <i>Journal of Materials Chemistry A</i> , 2022, 10, 2149-2151.	10.3	0
3	Deposition parameters and Raman crystal orientation measurements of ceria thin films deposited by spray pyrolysis. <i>Journal of Materials Chemistry A</i> , 2022, 10, 8898-8910.	10.3	10
4	An Investigation of Chemo-Mechanical Phenomena and Li Metal Penetration in All-Solid-State Lithium Metal Batteries Using In Situ Optical Curvature Measurements. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	24
5	Charging sustainable batteries. <i>Nature Sustainability</i> , 2022, 5, 176-178.	23.7	70
6	A Ceramic Electrolyte Glucose Fuel Cell for Implantable Electronics. <i>Advanced Materials</i> , 2022, 34, e2109075.	21.0	25
7	Ionic Conductivity of Nanocrystalline and Amorphous $\text{Li}_{10}\text{GeP}_{12}\text{S}_{12}$: The Detrimental Impact of Local Disorder on Ion Transport. <i>Journal of the American Chemical Society</i> , 2022, 144, 9597-9609.	13.7	21
8	A sinter-free future for solid-state battery designs. <i>Energy and Environmental Science</i> , 2022, 15, 2927-2936.	30.8	15
9	Solid-State Li-Metal Batteries: Challenges and Horizons of Oxide and Sulfide Solid Electrolytes and Their Interfaces. <i>Advanced Energy Materials</i> , 2021, 11, .	19.5	312
10	Roadmap on emerging hardware and technology for machine learning. <i>Nanotechnology</i> , 2021, 32, 012002.	2.6	104
11	Lithium-film ceramics for solid-state lithionic devices. <i>Nature Reviews Materials</i> , 2021, 6, 313-331.	48.7	80
12	Design of triple and quadruple phase boundaries and chemistries for environmental SO_2 electrochemical sensing. <i>Journal of Materials Chemistry A</i> , 2021, 9, 14691-14699.	10.3	3
13	Impact of Oxygen Non-Stoichiometry on Near-Ambient Temperature Ionic Mobility in Polaronic Mixed-Ionic-Electronic Conducting Thin Films. <i>Advanced Functional Materials</i> , 2021, 31, 2005640.	14.9	2
14	Processing thin but robust electrolytes for solid-state batteries. <i>Nature Energy</i> , 2021, 6, 227-239.	39.5	328
15	Widening the Range of Trackable Environmental and Health Pollutants for Li-Garnet-Based Sensors. <i>Advanced Materials</i> , 2021, 33, e2100314.	21.0	10
16	Careful Choices in Low Temperature Ceramic Processing and Slow Hydration Kinetics Can Affect Proton Conduction in Ceria. <i>Advanced Functional Materials</i> , 2021, 31, 2009630.	14.9	10
17	Solid State Batteries: Solid-State Li-Metal Batteries: Challenges and Horizons of Oxide and Sulfide Solid Electrolytes and Their Interfaces (Adv. Energy Mater. 1/2021). <i>Advanced Energy Materials</i> , 2021, 11, 2170002.	19.5	8
18	A review of defect structure and chemistry in ceria and its solid solutions. <i>Chemical Society Reviews</i> , 2020, 49, 554-592.	38.1	298

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19	All ceramic cathode composite design and manufacturing towards low interfacial resistance for garnet-based solid-state lithium batteries. <i>Energy and Environmental Science</i> , 2020, 13, 4930-4945.	30.8	108
20	Solvent-Mediated Synthesis of Amorphous Li_3PS_4 /Polyethylene Oxide Composite Solid Electrolytes with High Li^+ Conductivity. <i>Chemistry of Materials</i> , 2020, 32, 8789-8797.	6.7	21
21	Toward Controlling Filament Size and Location for Resistive Switches via Nanoparticle Exsolution at Oxide Interfaces. <i>Small</i> , 2020, 16, e2003224.	10.0	27
22	Oxygen Exchange in Dual-Phase $\text{La}_{0.65}\text{Sr}_{0.35}\text{MnO}_3$ - CeO_2 Composites for Solar Thermochemical Fuel Production. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 32622-32632.	8.0	20
23	High energy and long cycles. <i>Nature Energy</i> , 2020, 5, 278-279.	39.5	12
24	Lithium Battery Anode Gains Additional Functionality for Neuromorphic Computing through Metal-Insulator Phase Separation. <i>Advanced Materials</i> , 2020, 32, e1907465.	21.0	43
25	$\text{La}_{0.6}\text{Sr}_{0.4}\text{Cr}_{0.8}\text{Co}_{0.2}\text{O}_3$ Perovskite Decorated with Exsolved Co Nanoparticles for Stable CO_2 Splitting and Syngas Production. <i>ACS Applied Energy Materials</i> , 2020, 3, 4569-4579.	5.1	41
26	Modifying $\text{La}_{0.6}\text{Sr}_{0.4}\text{MnO}_3$ Perovskites with Cr Incorporation for Fast Isothermal CO_2 Splitting Kinetics in Solar-Driven Thermochemical Cycles. <i>Advanced Energy Materials</i> , 2019, 9, 1803886.	19.5	55
27	In Situ Method Correlating Raman Vibrational Characteristics to Chemical Expansion via Oxygen Nonstoichiometry of Perovskite Thin Films. <i>Advanced Materials</i> , 2019, 31, e1902493.	21.0	33
28	A low ride on processing temperature for fast lithium conduction in garnet solid-state battery films. <i>Nature Energy</i> , 2019, 4, 475-483.	39.5	144
29	Accelerated Ionic Motion in Amorphous Memristor Oxides for Nonvolatile Memories and Neuromorphic Computing. <i>Advanced Functional Materials</i> , 2019, 29, 1804782.	14.9	51
30	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. <i>Advanced Electronic Materials</i> , 2019, 5, 1800566.	5.1	12
31	Lithium Titanate Anode Thin Films for Li^+ Ion Solid State Battery Based on Garnets. <i>Advanced Functional Materials</i> , 2018, 28, 1800879.	14.9	45
32	Glass-Type Polyamorphism in Li^+ Garnet Thin Film Solid State Battery Conductors. <i>Advanced Energy Materials</i> , 2018, 8, 1702265.	19.5	81
33	Epitaxial Thin Films as a Model System for Li-Ion Conductivity in $\text{Li}_4\text{Ti}_5\text{O}_{12}$. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 44494-44500.	8.0	17
34	When Memristance Crosses the Path with Humidity Sensing—About the Importance of Protons and Its Opportunities in Valence Change Memristors. <i>Advanced Electronic Materials</i> , 2018, 4, 1800282.	5.1	23
35	A Simple and Fast Electrochemical CO_2 Sensor Based on $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ for Environmental Monitoring. <i>Advanced Materials</i> , 2018, 30, e1804098.	21.0	61
36	Designing Strained Interface Heterostructures for Memristive Devices. <i>Advanced Materials</i> , 2017, 29, 1605049.	21.0	33

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37	Perovskite oxides – 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
38	Impact of enhanced oxide reducibility on rates of solar-driven thermochemical fuel production. MRS Communications, 2017, 7, 873-878.	1.8	26
39	Editorial for the JECR special issue on all solid-state batteries. Journal of Electroceramics, 2017, 38, 125-127.	2.0	0
40	Design of Oxygen Vacancy Configuration for Memristive Systems. ACS Nano, 2017, 11, 8881-8891.	14.6	108
41	Modeling Thermochemical Solar-to-Fuel Conversion: CALPHAD for Thermodynamic Assessment Studies of Perovskites, Exemplified for (La,Sr)MnO ₃ . Advanced Energy Materials, 2017, 7, 1601086.	19.5	39
42	Editorial for the JECR special issue on resistive switching: Oxide materials, mechanisms, and devices. Journal of Electroceramics, 2017, 39, 1-3.	2.0	4
43	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
44	Investigating the all-solid-state batteries based on lithium garnets and a high potential cathode – LiMn _{1.5} Ni _{0.5} O ₄ . Nanoscale, 2016, 8, 18412-18420.	5.6	63
45	Interface-Engineered All-Solid-State Li-Ion Batteries Based on Garnet-Type Fast Li ⁺ Conductors. Advanced Energy Materials, 2016, 6, 1600736.	19.5	268
46	How Does Moisture Affect the Physical Property of Memristance for Anionic – Electronic Resistive Switching Memories?. Advanced Functional Materials, 2015, 25, 5117-5125.	14.9	147
47	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
48	Kinetics of CO ₂ Reduction over Nonstoichiometric Ceria. Journal of Physical Chemistry C, 2015, 119, 16452-16461.	3.1	114
49	Uncovering Two Competing Switching Mechanisms for Epitaxial and Ultrathin Strontium Titanate-Based Resistive Switching Bits. ACS Nano, 2015, 9, 10737-10748.	14.6	74
50	Scalable Oxygen-Ion Transport Kinetics in Metal-Oxide Films: Impact of Thermally Induced Lattice Compaction in Acceptor Doped Ceria Films. Advanced Functional Materials, 2014, 24, 1562-1574.	14.9	65
51	A Microdot Multilayer Oxide Device: Let Us Tune the Strain-Ionic Transport Interaction. ACS Nano, 2014, 8, 5032-5048.	14.6	78
52	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
53	Crystallization and Microstructure of Yttria-Stabilized Zirconia Thin Films Deposited by Spray Pyrolysis. Advanced Functional Materials, 2011, 21, 3967-3975.	14.9	34
54	Time-Temperature-Transformation (TTT) Diagrams for Crystallization of Metal Oxide Thin Films. Advanced Functional Materials, 2010, 20, 2807-2814.	14.9	43

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55	Engineering disorder in precipitation-based nano-scaled metal oxide thin films. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 11114.	2.8	42
56	Crystallization and Grain Growth Kinetics for Precipitation-Based Ceramics: A Case Study on Amorphous Ceria Thin Films from Spray Pyrolysis. <i>Advanced Functional Materials</i> , 2009, 19, 2790-2799.	14.9	56