

Lukas Porz

List of Publications by Year in descending order

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Version: 2024-02-01

22
papers

1,562
citations

687220

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677027

22
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23
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23
docs citations

23
times ranked

1908
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanism of Lithium Metal Penetration through Inorganic Solid Electrolytes. <i>Advanced Energy Materials</i> , 2017, 7, 1701003.	10.2	780
2	Compliant Yet Brittle Mechanical Behavior of $\text{Li}_2\text{S}-\text{P}_2\text{S}_5$ Lithium-Ion-Conducting Solid Electrolyte. <i>Advanced Energy Materials</i> , 2017, 7, 1602011.	10.2	219
3	Lithium Metal Penetration Induced by Electrodeposition through Solid Electrolytes: Example in Single-Crystal $\text{Li}_6\text{La}_3\text{ZrTaO}_{12}$ Garnet. <i>Journal of the Electrochemical Society</i> , 2018, 165, A3648-A3655.	1.3	172
4	Dislocation-toughened ceramics. <i>Materials Horizons</i> , 2021, 8, 1528-1537.	6.4	56
5	Conceptual Framework for Dislocation-Modified Conductivity in Oxide Ceramics Deconvoluting Mesoscopic Structure, Core, and Space Charge Exemplified for SrTiO_3 . <i>ACS Nano</i> , 2021, 15, 9355-9367.	7.3	41
6	Mapping of individual dislocations with dark-field X-ray microscopy. <i>Journal of Applied Crystallography</i> , 2019, 52, 122-132.	1.9	39
7	Influence of dislocations on thermal conductivity of strontium titanate. <i>Applied Physics Letters</i> , 2020, 117, .	1.5	32
8	Donor and acceptor-like self-doping by mechanically induced dislocations in bulk TiO_2 . <i>Nano Energy</i> , 2021, 85, 105944.	8.2	31
9	Nanoindentation pop-in in oxides at room temperature: Dislocation activation or crack formation?. <i>Journal of the American Ceramic Society</i> , 2021, 104, 4728-4741.	1.9	28
10	High temperature creep-mediated functionality in polycrystalline barium titanate. <i>Journal of the American Ceramic Society</i> , 2020, 103, 1891-1902.	1.9	26
11	Bridging the Gap between Bulk Compression and Indentation Test on Room-Temperature Plasticity in Oxides: Case Study on SrTiO_3 . <i>Crystals</i> , 2020, 10, 933.	1.0	19
12	Large plastic deformability of bulk ferroelectric KNbO_3 single crystals. <i>Journal of the European Ceramic Society</i> , 2021, 41, 4098-4107.	2.8	17
13	Blacklight sintering of ceramics. <i>Materials Horizons</i> , 2022, 9, 1717-1726.	6.4	15
14	Dislocations in ceramic electrolytes for solid-state Li batteries. <i>Scientific Reports</i> , 2021, 11, 8949.	1.6	14
15	Room-temperature dislocation plasticity in SrTiO_3 tuned by defect chemistry. <i>Journal of the American Ceramic Society</i> , 2022, 105, 1318-1329.	1.9	14
16	Characterizing Brittle Fracture by Modeling Crack Deflection Angles from the Microstructure. <i>Journal of the American Ceramic Society</i> , 2015, 98, 3690-3698.	1.9	12
17	Enhanced Photoconductivity at Dislocations in SrTiO_3 . <i>Advanced Materials</i> , 2022, 34, .	11.1	11
18	Crack propagation in silicon nitride ceramics under various temperatures and grain boundary toughness. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 632, 58-61.	2.6	10

#	ARTICLE	IF	CITATIONS
19	Quantitative mapping of nanotwin variants in the bulk. Scripta Materialia, 2021, 199, 113878.	2.6	10
20	High-temperature plastic deformation of $\langle 110 \rangle$ -oriented BaTiO ₃ single crystals. Journal of Materials Research, 2022, 37, 737-746.	1.2	6
21	60 years of dislocations in ceramics: A conceptual framework for dislocation mechanics in ceramics. International Journal of Ceramic Engineering & Science, 2022, 4, 214-239.	0.5	6
22	Low-profile self-sealing sample transfer flexure box. Review of Scientific Instruments, 2017, 88, 083705.	0.6	4