Sven Uhlenbruck

List of Publications by Year
in descending order

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75 papers	4,159 citations	147566 31 h-index	110170 64 g-index
76 all docs	76 docs citations	76 times ranked	4239 citing authors

#	Article	IF	Citations
1	Conductivity enhancement of Al- and Ta-substituted Li7La3Zr2O7 solid electrolytes by nanoparticles. Journal of the European Ceramic Society, 2022, 42, 1033-1041.	2.8	5
2	The Impact of Lithium Tungstate on the Densification and Conductivity of Phosphate Lithiumâ€Ion Conductors. ChemElectroChem, 2022, 9, .	1.7	5
3	Guidelines to correctly measure the lithium ion conductivity of oxide ceramic electrolytes based on a harmonized testing procedure. Journal of Power Sources, 2022, 531, 231323.	4.0	4
4	Rapid thermal sintering of screen-printed LiCoO2 films. Thin Solid Films, 2022, 749, 139177.	0.8	6
5	Sintering of Li-garnets: Impact of Al-incorporation and powder-bed composition on microstructure and ionic conductivity. Open Ceramics, 2022, 10, 100268.	1.0	3
6	Study of thermal material properties for Ta- and Al-substituted Li₇La₃Zr₂O₁₂ (LLZO) solid-state electrolyte in dependency of temperature and grain size. Journal of Materials Chemistry A, 2022, 10, 12177-12186.	5.2	13
7	A microwaveâ€based oneâ€pot process for homogeneous surface coating: improved electrochemical performance of Li(Ni_{1/3}Mn_{1/3}Co_{1/3})O₂ with a nanoâ€scaled ZnO:Al layer. Nano Select, 2021, 2, 146-157.	1.9	1
8	Physical Vapor Deposition in Solidâ€State Battery Development: From Materials to Devices. Advanced Science, 2021, 8, e2002044.	5.6	55
9	Tuning the Microstructure and Thickness of Ceramic Layers with Advanced Coating Technologies Using Zirconia as an Example. Advanced Engineering Materials, 2020, 22, 2000529.	1.6	10
10	Engineering of Sn and Preâ€Lithiated Sn as Negative Electrode Materials Coupled to Garnet Taâ€LLZO Solid Electrolyte for Allâ€Solidâ€State Li Batteries. Batteries and Supercaps, 2020, 3, 557-565.	2.4	10
11	A garnet structure-based all-solid-state Li battery without interface modification: resolving incompatibility issues on positive electrodes. Sustainable Energy and Fuels, 2019, 3, 280-291.	2.5	133
12	Bulk and grain boundary Li-diffusion in dense LiMn₂O₄ pellets by means of isotope exchange and ToF-SIMS analysis. Physical Chemistry Chemical Physics, 2019, 21, 26066-26076.	1.3	19
13	Impact of Fluorination on Phase Stability, Crystal Chemistry, and Capacity of LiCoMnO₄ High Voltage Spinels. ACS Applied Energy Materials, 2018, 1, 715-724.	2.5	10
14	Thermal stability of 5â€V LiCoMnO4 spinels with LiF additive. Solid State Ionics, 2018, 320, 378-386.	1.3	8
15	Reactions of garnet-based solid-state lithium electrolytes with water â€" A depth-resolved study. Solid State Ionics, 2018, 320, 259-265.	1.3	24
16	Electrochemical Performance of All-Solid-State Li-Ion Batteries Based on Garnet Electrolyte Using Silicon as a Model Electrode. ACS Energy Letters, 2018, 3, 1006-1012.	8.8	58
17	Challenges regarding thin film deposition of garnet electrolytes for all-solid-state lithium batteries with high energy density. Ionics, 2018, 24, 2199-2208.	1.2	15
18	High Capacity Garnet-Based All-Solid-State Lithium Batteries: Fabrication and 3D-Microstructure Resolved Modeling. ACS Applied Materials & Interfaces, 2018, 10, 22329-22339.	4.0	91

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19	Durable direct ethanol anode-supported solid oxide fuel cell. Applied Energy, 2017, 199, 180-186.	5.1	61
20	Enhancing the performance of high-voltage LiCoMnO4 spinel electrodes by fluorination. Journal of Power Sources, 2017, 341, 122-129.	4.0	20
21	Cathode-electrolyte material interactions during manufacturing of inorganic solid-state lithium batteries. Journal of Electroceramics, 2017, 38, 197-206.	0.8	63
22	Compatibility study towards monolithic self-charging power unit based on all-solid thin-film solar module and battery. Journal of Power Sources, 2017, 365, 303-307.	4.0	17
23	Suppression of Aluminum Current Collector Dissolution by Protective Ceramic Coatings for Better Highâ€Voltage Battery Performance. ChemPhysChem, 2017, 18, 156-163.	1.0	33
24	Li₇La₃Zr₂O₁₂ Interface Modification for Li Dendrite Prevention. ACS Applied Materials & Interfaces, 2016, 8, 10617-10626.	4.0	632
25	Time-of-flight secondary ion mass spectrometry study of lithium intercalation process in LiCoO2 thin film. Journal of Power Sources, 2016, 321, 241-247.	4.0	17
26	About the Compatibility between High Voltage Spinel Cathode Materials and Solid Oxide Electrolytes as a Function of Temperature. ACS Applied Materials & Interfaces, 2016, 8, 26842-26850.	4.0	193
27	Sol-gel synthesis of thin solid Li7La3Zr2O12 electrolyte films for Li-ion batteries. Thin Solid Films, 2016, 615, 128-134.	0.8	53
28	Processing of Al-doped ZnO protective thin films on aluminum current collectors for lithium ion batteries. Thin Solid Films, 2016, 619, 302-307.	0.8	18
29	Radio frequency magnetron sputtering of Li7La3Zr2O12 thin films for solid-state batteries. Journal of Power Sources, 2016, 307, 684-689.	4.0	107
30	Life Cycle Assessment and resource analysis of all-solid-state batteries. Applied Energy, 2016, 169, 757-767.	5.1	87
31	Influence of titanium nitride interlayer on the morphology, structure and electrochemical performance of magnetron-sputtered lithium iron phosphate thin films. Journal of Power Sources, 2015, 281, 326-333.	4.0	11
32	High conductivity of mixed phase Al-substituted Li7La3Zr2O12. Journal of Electroceramics, 2015, 35, 25-32.	0.8	60
33	Three-Dimensional, Fibrous Lithium Iron Phosphate Structures Deposited by Magnetron Sputtering. ACS Applied Materials & Interfaces, 2015, 7, 22594-22600.	4.0	15
34	Direct Ethanol Anode-Supported Solid Oxide Fuel Cell. ECS Transactions, 2015, 68, 2851-2858.	0.3	3
35	Multi-layer thin-film electrolytes for metal supported solid oxide fuel cells. Journal of Power Sources, 2014, 256, 52-60.	4.0	57
36	Application of Thinâ€Film Manufacturing Technologies to Solid Oxide Fuel Cells and Gas Separation Membranes. International Journal of Applied Ceramic Technology, 2013, 10, 421-427.	1.1	8

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37	Development of a metallic/ceramic composite for the deposition of thin-film oxygen transport membrane. Journal of the European Ceramic Society, 2013, 33, 287-296.	2.8	16
38	Sr-Diffusion in Ce_{0.8}Gd_{0.2}O_{2-Î´} Layers for SOFC Application. Materials Research Society Symposia Proceedings, 2013, 1542, 1.	0.1	4
39	Status of Solid Oxide Fuel Cell Development at Forschungszentrum JÃ¼lich. Procedia Engineering, 2012, 44, 407-408.	1.2	5
40	Fabrication of Ce0.8Gd0.2O2â^'Î´ thin-film oxygen transport membranes by reactive magnetron sputtering. Thin Solid Films, 2012, 526, 59-64.	0.8	4
41	Dense yttria-stabilised zirconia electrolyte layers for SOFC by reactive magnetron sputtering. Journal of Power Sources, 2012, 205, 157-163.	4.0	62
42	Development of Thin-Film Manufacturing Technologies for Solid Oxide Fuel Cells and Gas Separation Membranes. Additional Conferences (Device Packaging HiTEC HiTEN & CICMT), 2012, 2012, 000277-000280.	0.2	0
43	Electrode and Electrolyte Layers for Solid Oxide Fuel Cells Applied by Physical Vapor Deposition (PVD). ECS Transactions, 2011, 35, 2275-2282.	0.3	8
44	Gas phase deposition of diffusion barriers for metal substrates in solid oxide fuel cells. Surface and Coatings Technology, 2011, 205, 3999-4004.	2.2	22
45	Performance analysis of mixed ionicâ€“electronic conducting cathodes in anode supported cells. Journal of Power Sources, 2011, 196, 7257-7262.	4.0	30
46	Development of Metal-Supported Solid Oxide Fuel Cells. ECS Transactions, 2011, 35, 343-349.	0.3	19
47	Properties of bias-assisted sputtered gadolinia-doped ceria interlayers for solid oxide fuel cells. Journal of Power Sources, 2010, 195, 1599-1604.	4.0	41
48	Materials and manufacturing technologies for solid oxide fuel cells. Journal of Materials Science, 2010, 45, 3109-3135.	1.7	240
49	Application of electrolyte layers for solid oxide fuel cells by electron beam evaporation. Solid State Ionics, 2010, 181, 447-452.	1.3	13
50	Temperature and Bias Effects on Sputtered Ceria Diffusion Barriers for Solid Oxide Fuel Cells. Journal of the Electrochemical Society, 2010, 157, B1515.	1.3	13
51	Bias-Assisted Sputtering of Gadolinia-Doped Ceria Interlayers for Solid Oxide Fuel Cells. ECS Transactions, 2009, 25, 2727-2734.	0.3	0
52	Recent Results in Solid Oxide Fuel Cell Development at Forschungszentrum Juelich. ECS Transactions, 2009, 25, 213-220.	0.3	12
53	Element interdiffusion at electrolyteâ€“cathode interfaces in ceramic high-temperature fuel cells. Solid State Ionics, 2009, 180, 418-423.	1.3	115
54	Advances in Research, Development, and Testing of Single Cells at Forschungszentrum JÃ¼lich. Journal of Fuel Cell Science and Technology, 2009, 6, .	0.8	14

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55	Characterization of Anode-Supported Solid Oxide Fuel Cells With PSCF Cathode. Journal of Fuel Cell Science and Technology, 2009, 6, .	0.8	7
56	Ce0.8Gd0.2O2 â^' Î´ protecting layers manufactured by physical vapor deposition for IT-SOFC. Solid State Ionics, 2008, 179, 919-923.	1.3	156
57	Materials Development for Advanced Planar Solid Oxide Fuel Cells. International Journal of Applied Ceramic Technology, 2007, 4, 436-445.	1.1	57
58	Thin film coating technologies of (Ce,Gd)O2-Î´ interlayers for application in ceramic high-temperature fuel cells. Thin Solid Films, 2007, 515, 4053-4060.	0.8	99
59	Nano-structuring of solid oxide fuel cells cathodes. Topics in Catalysis, 2006, 40, 123-131.	1.3	32
60	Ferrite-based perovskites as cathode materials for anode-supported solid oxide fuel cells. Solid State Ionics, 2005, 176, 1341-1350.	1.3	396
61	Silver incorporation into cathodes for solid oxide fuel cells operating at intermediate temperature. Journal of Solid State Electrochemistry, 2004, 8, 923-927.	1.2	28
62	High-temperature thermal expansion and conductivity of cobaltites: potentials for adaptation of the thermal expansion to the demands for solid oxide fuel cells. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 107, 277-282.	1.7	87
63	The influence of noble-metal-containing cathodes on the electrochemical performance of anode-supported SOFCs. Journal of Power Sources, 2004, 130, 119-128.	4.0	104
64	Processing and properties of the ceramic conductive multilayer device solid oxide fuel cell (SOFC). Ceramics International, 2004, 30, 1107-1113.	2.3	41
65	Oxidation behaviour of ferrous alloys used as interconnecting material in solid oxide fuel cells. Journal of Materials Science, 2003, 38, 507-513.	1.7	28
66	Magnetism and the charge order transition in lightly dopedLa1â^'xSrxMnO3. Physical Review B, 2002, 65, .	1.1	51
67	Magnetotransport studies and mechanism ofHo- andY-dopedLa0.7Ca0.3MnO3. Physical Review B, 2001, 63, .	1.1	42
68	Physics of grain boundaries in the colossal magnetoresistance manganites. Journal of Magnetism and Magnetic Materials, 2000, 211, 150-159.	1.0	178
69	On the nature of grain boundaries in the colossal magnetoresistance manganites. Europhysics Letters, 1999, 47, 371-377.	0.7	116
70	Interplay between Charge Order, Magnetism, and Structure inLa0.875Sr0.125MnO3. Physical Review Letters, 1999, 82, 185-188.	2.9	125
71	Hard X-Ray Diffraction Studies of La1â^'xSrxMnO3. Journal of Superconductivity and Novel Magnetism, 1999, 12, 317-318.	0.5	0
72	The charge ordered phase in studied by means of high energy X-ray diffraction. European Physical Journal B, 1999, 8, 5-8.	0.6	23

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73	Thermopower and anomalous heat transport inLa0.85Sr0.15MnO3. Physical Review B, 1998, 57, R5571-R5574.	1.1	39
74	Improved Sofc Cathodes and Cathode Contact Layers. Ceramic Engineering and Science Proceedings, 0, , 269-274.	0.1	6
75	The Impact of Lithium Tungstate on the Densification and Conductivity of Phosphate Lithiumâ€ion Conductors. ChemElectroChem, 0, , .	1.7	1