

Roland Schierholz

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

1,160
citations

361413

20
h-index

414414

32
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54
all docs

54
docs citations

54
times ranked

1844
citing authors

#	ARTICLE	IF	CITATIONS
1	Investigating the Interface between Ceramic Particles and Polymer Matrix in Hybrid Electrolytes by Electrochemical Strain Microscopy. <i>Nanomaterials</i> , 2022, 12, 654.	4.1	4
2	Instability of Ga-substituted $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ toward metallic Li. <i>Journal of Materials Chemistry A</i> , 2022, 10, 10998-11009.	10.3	14
3	Exploring the Interface of Skin-Layered Titanium Fibers for Electrochemical Water Splitting. <i>Advanced Energy Materials</i> , 2021, 11, 2002926.	19.5	48
4	Signal Origin of Electrochemical Strain Microscopy and Link to Local Chemical Distribution in Solid State Electrolytes. <i>Small Methods</i> , 2021, 5, 2001279.	8.6	10
5	Oxygen Nonstoichiometry and Valence State of Manganese in $\text{LaCaMnO}_{3+\delta}$. <i>ACS Omega</i> , 2021, 6, 9638-9652.	3.5	7
6	Nano-Scale Complexions Facilitate Li Dendrite-Free Operation in LATP Solid-State Electrolyte. <i>Advanced Energy Materials</i> , 2021, 11, 2100707.	19.5	36
7	Microstructural details of spindle-like lithium titanium phosphate revealed in three dimensions. <i>RSC Advances</i> , 2021, 11, 34605-34612.	3.6	1
8	Defects and Phase Formation in Non-Stoichiometric LaFeO_3 : a Combined Theoretical and Experimental Study. <i>Chemistry of Materials</i> , 2021, 33, 9473-9485.	6.7	9
9	Operando Transmission Electron Microscopy Study of All-Solid-State Battery Interface: Redistribution of Lithium among Interconnected Particles. <i>ACS Applied Energy Materials</i> , 2020, 3, 5101-5106.	5.1	14
10	Combined quantitative microscopy on the microstructure and phase evolution in $\text{Li}_{1.3}\text{Al}_{0.3}\text{Ti}_{1.7}(\text{PO}_4)_3$ ceramics. <i>Journal of Advanced Ceramics</i> , 2020, 9, 149-161.	17.4	29
11	Frontispiece: Nanoscopic Porous Iridium/Iridium Dioxide Superstructures (15 nm): Synthesis and Thermal Conversion by In-Situ Transmission Electron Microscopy. <i>Chemistry - A European Journal</i> , 2019, 25, .	3.3	0
12	Carbonisation temperature dependence of electrochemical activity of nitrogen-doped carbon fibres from electrospinning as air-cathodes for aqueous-alkaline metal-air batteries. <i>RSC Advances</i> , 2019, 9, 27231-27241.	3.6	23
13	Nanoscopic Porous Iridium/Iridium Dioxide Superstructures (15 nm): Synthesis and Thermal Conversion by In-Situ Transmission Electron Microscopy. <i>Chemistry - A European Journal</i> , 2019, 25, 11048-11057.	3.3	4
14	The carbonization of polyacrylonitrile-derived electrospun carbon nanofibers studied by in situ transmission electron microscopy. <i>RSC Advances</i> , 2019, 9, 6267-6277.	3.6	35
15	Transformation of carbon-supported Pt-Ni octahedral electrocatalysts into cubes: toward stable electrocatalysis. <i>Nanoscale</i> , 2018, 10, 21353-21362.	5.6	7
16	Analysis of the effects of different carbon coating strategies on structure and electrochemical behavior of LiCoPO_4 material as a high-voltage cathode electrode for lithium ion batteries. <i>Electrochimica Acta</i> , 2018, 279, 108-117.	5.2	19
17	Correlative electrochemical strain and scanning electron microscopy for local characterization of the solid state electrolyte $\text{Li}_{1.3}\text{Al}_{0.3}\text{Ti}_{1.7}(\text{PO}_4)_3$. <i>Beilstein Journal of Nanotechnology</i> , 2018, 9, 1564-1572.	2.8	29
18	Monolithic All-Phosphate Solid-State Lithium-Ion Battery with Improved Interfacial Compatibility. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 22264-22277.	8.0	68

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19	An Advanced All Phosphate Lithium-Ion Battery Providing High Electrochemical Stability, High Rate Capability and Long-Term Cycling Performance. <i>Journal of the Electrochemical Society</i> , 2017, 164, A370-A379.	2.9	8
20	Morphology Dependency of Li ₃ V ₂ (PO ₄) ₃ /C Cathode Material Regarding to Rate Capability and Cycle Life in Lithium-ion Batteries. <i>Electrochimica Acta</i> , 2017, 232, 310-322.	5.2	26
21	Observing different modes of mobility in lithium titanate spinel by nuclear magnetic resonance. <i>RSC Advances</i> , 2017, 7, 25276-25284.	3.6	17
22	Superionic bulk conductivity in Li _{1.3} Al _{0.3} Ti _{1.7} (PO ₄) ₃ solid electrolyte. <i>Solid State Ionics</i> , 2017, 309, 180-186.	2.7	60
23	Li ₂ (PO ₄) ₃ /C Anode Material with a Spindle-Like Morphology for Batteries with High Rate Capability and Improved Cycle Life. <i>ChemElectroChem</i> , 2016, 3, 1157-1169.	3.4	19
24	Photogrammetry of the three-dimensional shape and texture of a nanoscale particle using scanning electron microscopy and free software. <i>Ultramicroscopy</i> , 2016, 169, 80-88.	1.9	29
25	Hydrogen interstitial defects in acceptor-type CuO-doped PbTiO ₃ uptake and dissolution of water vapor and formation of (CuTi ³⁺ (OH)O ²⁻) defect complexes. <i>Applied Physics Letters</i> , 2016, 109, 122904.	3.3	3
26	Influence of microstructure and AlPO ₄ secondary-phase on the ionic conductivity of Li _{1.3} Al _{0.3} Ti _{1.7} (PO ₄) ₃ solid-state electrolyte. <i>Functional Materials Letters</i> , 2016, 09, 1650066.	1.2	61
27	STEM-EELS analysis reveals stable high-density He in nanopores of amorphous silicon coatings deposited by magnetron sputtering. <i>Nanotechnology</i> , 2015, 26, 075703.	2.6	29
28	On the origin of differential phase contrast at a locally charged and globally charge-compensated domain boundary in a polar-ordered material. <i>Ultramicroscopy</i> , 2015, 154, 57-63.	1.9	53
29	Full solution processed mesostructured optical resonators integrating colloidal semiconductor quantum dots. <i>Nanoscale</i> , 2015, 7, 16583-16589.	5.6	9
30	Microstructure of sodium-potassium niobate ceramics sintered under high alkaline vapor pressure atmosphere. <i>Journal of the European Ceramic Society</i> , 2014, 34, 4213-4221.	5.7	28
31	On the formation of the porous structure in nanostructured a-Si coatings deposited by dc magnetron sputtering at oblique angles. <i>Nanotechnology</i> , 2014, 25, 355705.	2.6	39
32	Analyzing the defect structure of CuO-Doped PZT and KNN piezoelectrics from electron paramagnetic resonance. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2014, 61, 1447-1455.	3.0	10
33	A new bottom-up methodology to produce silicon layers with a closed porosity nanostructure and reduced refractive index. <i>Nanotechnology</i> , 2013, 24, 275604.	2.6	28
34	Ferroelectric domains in PZT ceramics at the morphotropic phase boundary. Can the splitting of reflections in SAED patterns be used for the distinction of different pseudo-cubic phases?. <i>Journal of Applied Crystallography</i> , 2012, 45, 766-777.	4.5	11
35	$\frac{1}{x} \text{Ti} \text{O}$	3.2	22
36	Refinement of structural parameters of PbTiO ₃ by convergent-beam electron diffraction. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2010, 66, s65-s65.	0.3	0

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37	Refinement of structural parameters of PbTiO ₃ by convergent-beam electron diffraction. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s218-s218.	0.3	0
38	Combined refinement of high-resolution neutron and synchrotron data of PLZT. Acta Crystallographica Section A: Foundations and Advances, 2009, 65, s202-s202.	0.3	0
39	Domain structure in PbZr _{1-x} Ti _x O ₃ . Acta Crystallographica Section A: Foundations and Advances, 2009, 65, s203-s203.	0.3	1
40	The role of nonmagnetic phases in improving the magnetic properties of devitrified Pr ₂ Fe ₁₄ B-based nanocomposites. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 149, 73-76.	3.5	5
41	Catalytic Induced Thermal Conversion of Amorphous Carbon into Single Walled Carbon Nanotubes. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2008, 634, 911-915.	1.2	5
42	Catalyst free growth of a carbon nanotube-alumina composite structure. Inorganica Chimica Acta, 2008, 361, 1770-1778.	2.4	59
43	Crystal symmetry in single domains of $\text{PbZr}_{1-x}\text{Ti}_x\text{O}_3$. Physical Review B, 2008, 78, .	0.3	0
44	The system of PbZr _{1-x} Ti _x O ₃ studied by convergent-beam electron diffraction. Acta Crystallographica Section A: Foundations and Advances, 2008, 64, C145-C145.	0.3	0
45	Nature of the morphotropic phase boundary (MPB) in lead zirconate titanate (PZT). Acta Crystallographica Section A: Foundations and Advances, 2008, 64, C102-C102.	0.3	0
46	Nanodomains in morphotropic lead zirconate titanate ceramics: On the origin of the strong piezoelectric effect. Journal of Applied Physics, 2007, 102, .	2.5	128
47	Silica Glass Segregation in 3 wt% Li-Doped Hot-Pressed Y ₂ Si ₂ O ₇ . Journal of the American Ceramic Society, 2007, 90, 3307-3310.	3.8	4
48	Symmetry study of PbZr _{1-x} Ti _x O ₃ by convergent-beam electron diffraction. Acta Crystallographica Section A: Foundations and Advances, 2007, 63, s65-s66.	0.3	0
49	Local symmetry in PbZr _x Ti _{1-x} O ₃ ceramics. Acta Crystallographica Section A: Foundations and Advances, 2005, 61, c400-c400.	0.3	2
50	FEI Titan G2 80-200 CREWLEY. Journal of Large-scale Research Facilities JLSRF, 0, 2, A43.	0.0	111