Ryota Shimizu

List of Publications by Year
in descending order

37 papers	691 citations	623734 14 h-index	552781 26 g-index
37 all docs	37 docs citations	37 times ranked	789 citing authors

#	Article	IF	Citations
1	Negligible â€œNegative Space-Charge Layer Effectsâ€•at Oxide-Electrolyte/Electrode Interfaces of Thin-Film Batteries. Nano Letters, 2015, 15, 1498-1502.	9.1	119
2	Autonomous materials synthesis by machine learning and robotics. APL Materials, 2020, 8, .	5.1	69
3	Fabrication of all-solid-state battery using epitaxial LiCoO2 thin films. Journal of Power Sources, 2014, 267, 881-887.	7.8	65
4	Atomically Well-Ordered Structure at Solid Electrolyte and Electrode Interface Reduces the Interfacial Resistance. ACS Applied Materials & Interfaces, 2018, 10, 41732-41737.	8.0	58
5	Preparation and in-situ characterization of well-defined solid electrolyte/electrode interfaces in thin-film lithium batteries. Solid State Ionics, 2016, 285, 118-121.	2.7	47
6	Growth processes of lithium titanate thin films deposited by using pulsed laser deposition. Applied Physics Letters, 2012, 101, .	3.3	45
7	Extremely Low Resistance of Li₃PO₄ Electrolyte/Li(Ni_{0.5}Mn_{1.5})O₄ Electrode Interfaces. ACS Applied Materials & Interfaces, 2018, 10, 27498-27502.	8.0	41
8	Scanning tunnelling spectroscopy of superconductivity on surfaces of LiTi2O4(111) thin films. Nature Communications, 2017, 8, 15975.	12.8	24
9	Effects of Anisotropy in Rutile TiO₂ on the Performance of Solid-State Lithium Batteries. ACS Applied Energy Materials, 2020, 3, 8338-8343.	5.1	20
10	Low resistance at LiNi1/3Mn1/3Co1/3O2 and Li3PO4 interfaces. Applied Physics Letters, 2020, 116, .	3.3	18
11	Low Interface Resistance in Solid-State Lithium Batteries Using Spinel LiNi_{0.5}Mn_{1.5}O₄(111) Epitaxial Thin Films. ACS Applied Energy Materials, 2020, 3, 1358-1363.	5.1	18
12	Bottom-current-collector-free thin-film batteries using LiNi0.8Co0.2O2 epitaxial thin films. Journal of Power Sources, 2019, 416, 56-61.	7.8	16
13	Fabrication of atomically abrupt interfaces of single-phase TiH2 and Al2O3. APL Materials, 2017, 5, .	5.1	15
14	Impact of the Crystal Orientation of Positive Electrodes on the Interface Resistance across a Solid Electrolyte and Electrode. ACS Applied Energy Materials, 2020, 3, 6416-6421.	5.1	14
15	A nonvolatile memory device with very low power consumption based on the switching of a standard electrode potential. APL Materials, 2017, 5, .	5.1	13
16	Hole Accumulation at the Grain Boundary Enhances Water Oxidation at Î±-Fe₂O₃ Electrodes under a Microwave Electric Field. Journal of Physical Chemistry C, 2020, 124, 7749-7759.	3.1	10
17	Tuning the Schottky Barrier Height at the Interfaces of Metals and Mixed Conductors. ACS Applied Materials & Interfaces, 2021, 13, 15746-15754.	8.0	10
18	Epitaxial Growth of Single-Phase Magnesium Dihydride Thin Films. Inorganic Chemistry, 2019, 58, 15354-15358.	4.0	9

#	ARTICLE	IF	CITATIONS
19	Drastic Reduction of the Solid Electrolyteâ€"Electrode Interface Resistance via Annealing in Battery Form. ACS Applied Materials & Interfaces, 2022, 14, 2703-2710.	8.0	9
20	Repeatable Photoinduced Insulator-to-Metal Transition in Yttrium Oxyhydride Epitaxial Thin Films. Chemistry of Materials, 2022, 34, 3616-3623.	6.7	8
21	A hysteresis loop in electrical resistance of NbHx observed above the Î²â^'Î» transition temperature. AIP Advances, 2019, 9, 015027.	1.3	7
22	Relaxation of the Interface Resistance between Solid Electrolyte and 5 V-Class Positive Electrode. Nano Letters, 2021, 21, 5572-5577.	9.1	7
23	Metal Hydrides: Epitaxial Growth and Electronic Properties. Journal of the Physical Society of Japan, 2020, 89, 051012.	1.6	6
24	Low-Energy-Consumption Three-Valued Memory Device Inspired by Solid-State Batteries. ACS Applied Materials & Interfaces, 2019, 11, 45150-45154.	8.0	5
25	Epitaxial Thin Film Growth of Europium Dihydride. Crystal Growth and Design, 2020, 20, 5903-5907.	3.0	5
26	Origin of Optical Transparency in a Transparent Superconductor LiTi2O4. ACS Applied Electronic Materials, 2020, 2, 517-522.	4.3	5
27	Clean Solidâ€"Electrolyte/Electrode Interfaces Double the Capacity of Solid-State Lithium Batteries. ACS Applied Materials & Interfaces, 2021, 13, 5861-5865.	8.0	5
28	Synthesis of High-Entropy Layered Oxide Epitaxial Thin Films: LiCr_{1/6}Mn_{1/6}Fe_{1/6}Co_{1/6}Ni_{1/6}Cu_{1/6}O₂. Crystal Growth and Design, 2022, 22, 1116-1122.	3.0	2
29	Ultrahigh-pressure fabrication of single-phase Î±-PbO2-type TiO2 epitaxial thin films. AIP Advances, 2020, 10, 025125.	1.3	4
30	Bayesian statistics-based analysis of AC impedance spectra. AIP Advances, 2020, 10, .	1.3	3
31	Diffusion of F atoms from fluoride substrates promotes the epitaxial growth of metal fluorides. Applied Physics Express, 2020, 13, 085507.	2.4	3
32	Polarity reversal of the charge carrier in tetragonal TiHx(x=1.6â^'2.0) at low temperatures. Physical Review Research, 2020, 2, .	3.6	3
33	Bayesian sparse modeling of extended x-ray absorption fine structure to determine interstitial oxygen positions in yttrium oxyhydride epitaxial thin film. AIP Advances, 2021, 11, .	1.3	2
34	Tuning of Bayesian optimization for materials synthesis: simulation of the one-dimensional case. Science and Technology of Advanced Materials Methods, 2022, 2, 119-128.	1.3	2
35	Ionic Rectification across Ionic and Mixed Conductor Interfaces. Nano Letters, 2021, 21, 10086-10091.	9.1	1
36	Impact of Surface Roughness on Recrystallization of an Î±-Al2O3(001) Single Crystal to Î±-AlO(OH) Diaspore Microcrystals. ACS Omega, 2020, 5, 23520-23523.	3.5	0

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37	Epitaxial Growth of EuF_2 and EuO Thin Films Based on Spontaneous Anion Diffusion from Substrates. Crystal Growth and Design, 2021, 21, 4468-4472.	3.0	0