

Bo-Kuai Lai

List of Publications by Year in descending order

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Version: 2024-02-01

29
papers

1,273
citations

361413

20
h-index

526287

27
g-index

30
all docs

30
docs citations

30
times ranked

1195
citing authors

#	ARTICLE	IF	CITATIONS
1	Scalable nanostructured membranes for solid-oxide fuel cells. <i>Nature Nanotechnology</i> , 2011, 6, 282-286.	31.5	188
2	Pt/Y _{0.16} Zr _{0.84} O _{1.92} /Pt thin film solid oxide fuel cells: Electrode microstructure and stability considerations. <i>Journal of Power Sources</i> , 2011, 196, 2608-2614.	7.8	118
3	Electric-Field-Induced Domain Evolution in Ferroelectric Ultrathin Films. <i>Physical Review Letters</i> , 2006, 96, 137602.	7.8	107
4	Phase diagrams of epitaxial BaTiO ₃ ultrathin films from first principles. <i>Applied Physics Letters</i> , 2005, 86, 132904.	3.3	88
5	An experimental investigation into micro-fabricated solid oxide fuel cells with ultra-thin La _{0.6} Sr _{0.4} Co _{0.8} Fe _{0.2} O ₃ cathodes and yttria-doped zirconia electrolyte films. <i>Journal of Power Sources</i> , 2009, 186, 252-260.	7.8	77
6	Low temperature thin film solid oxide fuel cells with nanoporous ruthenium anodes for direct methane operation. <i>Energy and Environmental Science</i> , 2011, 4, 3473.	30.8	71
7	Nanoscale Compositionally Graded Thin-Film Electrolyte Membranes for Low-Temperature Solid Oxide Fuel Cells. <i>Advanced Energy Materials</i> , 2012, 2, 656-661.	19.5	66
8	A robust co-sputtering fabrication procedure for TiNi shape memory alloys for MEMS. <i>Journal of Microelectromechanical Systems</i> , 2001, 10, 69-79.	2.5	65
9	Nanostructured La _{0.6} Sr _{0.4} Co _{0.8} Fe _{0.2} O ₃ /Y _{0.08} Zr _{0.92} O _{1.96} /La _{0.6} Sr _{0.4} Co _{0.8} Fe _{0.2} O ₃ (LSCF/YSZ/LSCF) symmetric thin film solid oxide fuel cells. <i>Journal of Power Sources</i> , 2011, 196, 1826-1832.	7.8	63
10	Ultra-thin nanocrystalline lanthanum strontium cobalt ferrite (La _{0.6} Sr _{0.4} Co _{0.8} Fe _{0.2} O ₃) films synthesis by RF-sputtering and temperature-dependent conductivity studies. <i>Journal of Power Sources</i> , 2009, 186, 115-122.	7.8	52
11	Thickness dependency of 180° stripe domains in ferroelectric ultrathin films: A first-principles-based study. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	45
12	Domain evolution of BaTiO ₃ ultrathin films under an electric field: A first-principles study. <i>Physical Review B</i> , 2007, 75, .	3.2	39
13	Low-temperature electrochemical characterization of dense ultra-thin lanthanum strontium cobalt ferrite (La _{0.6} Sr _{0.4} Co _{0.8} Fe _{0.2} O ₃) cathodes synthesized by RF-sputtering on nanoporous alumina-supported Y-doped zirconia membranes. <i>Journal of Power Sources</i> , 2009, 193, 589-592.	7.8	38
14	On the role of ultra-thin oxide cathode synthesis on the functionality of micro-solid oxide fuel cells: Structure, stress engineering and in situ observation of fuel cell membranes during operation. <i>Journal of Power Sources</i> , 2010, 195, 5185-5196.	7.8	38
15	Fabrication and electrochemical performance of thin-film solid oxide fuel cells with large area nanostructured membranes. <i>Journal of Power Sources</i> , 2010, 195, 1149-1155.	7.8	30
16	Methane-fueled thin film micro-solid oxide fuel cells with nanoporous palladium anodes. <i>Journal of Power Sources</i> , 2011, 196, 6299-6304.	7.8	29
17	Free standing oxide alloy electrolytes for low temperature thin film solid oxide fuel cells. <i>Journal of Power Sources</i> , 2012, 202, 120-125.	7.8	29
18	Interface-controlled high dielectric constant Al ₂ O ₃ /TiO _x nanolaminates with low loss and low leakage current density for new generation nanodevices. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	25

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19	Tailoring dielectric relaxation in ultra-thin high-dielectric constant nanolaminates for nanoelectronics. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	25
20	Microstructure and Microfabrication Considerations for Self-Supported On-Chip Ultra-Thin Micro-Solid Oxide Fuel Cell Membranes. <i>Fuel Cells</i> , 2009, 9, 699-710.	2.4	23
21	Thin film nanocrystalline Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ : Synthesis, conductivity, and micro-solid oxide fuel cells. <i>Journal of Power Sources</i> , 2011, 196, 6214-6218.	7.8	16
22	Quantitative phase transformation behavior in TiNi shape memory alloy thin films. <i>Journal of Materials Research</i> , 2004, 19, 2822-2833.	2.6	12
23	Photon-assisted synthesis of ultra-thin yttria-doped zirconia membranes: Structure, variable temperature conductivity and micro-fuel cell devices. <i>Journal of Power Sources</i> , 2010, 195, 994-1000.	7.8	11
24	A Comparison of PZT-Based and TiNi Shape Memory Alloy-Based MEMS Microactuators. <i>Ferroelectrics</i> , 2004, 306, 221-226.	0.6	9
25	Dielectric behavior related to TiO _x phase change to TiO ₂ in TiO _x /Al ₂ O ₃ nanolaminate thin films. <i>MRS Communications</i> , 2014, 4, 67-72.	1.8	4
26	Nanoscale Compositionally Graded Thin-Film Electrolyte Membranes for Low-Temperature Solid Oxide Fuel Cells (<i>Adv. Energy Mater.</i> 6/2012). <i>Advanced Energy Materials</i> , 2012, 2, 655-655.	19.5	3
27	Photo-excitation enhanced high temperature conductivity and crystallization kinetics in ultra-thin La _{0.6} Sr _{0.4} Co _{0.8} Fe _{0.2} O ₃ films. <i>Journal of Power Sources</i> , 2010, 195, 3145-3148.	7.8	1
28	Toward wafer-scale fabrication and 3D integration of micro-solid oxide fuel cells for portable energy. , 2010, , .		1
29	First Principles Study of Size Effect in BaTiO ₃ Ultrathin Films. <i>Materials Research Society Symposia Proceedings</i> , 2005, 881, 1.	0.1	0