Chuan Cheng

List of Publications by Year
in descending order

29 papers	420 citations	687363 13 h-index	752698 20 g-index
34 all docs	34 docs citations	34 times ranked	451 citing authors

#	Article	IF	Citations
1	Modelling and simulation of self-ordering in anodic porous alumina. Electrochimica Acta, 2011, 56, 9998-10008.	5.2	45
2	Reversible Electrochemical Actuation of Metallic Nanohoneycombs Induced by Pseudocapacitive Redox Processes. ACS Nano, 2015, 9, 3984-3995.	14.6	43
3	Fast fabrication of self-ordered anodic porous alumina on oriented aluminum grains by high acid concentration and high temperature anodization. Nanotechnology, 2013, 24, 215602.	2.6	37
4	Micro-scale graded electrodes for improved dynamic and cycling performance of Li-ion batteries. Journal of Power Sources, 2019, 413, 59-67.	7.8	36
5	Fast and Reversible Actuation of Metallic Muscles Composed of Nickel Nanowireâ€Forest. Advanced Materials, 2016, 28, 5315-5321.	21.0	30
6	Combining composition graded positive and negative electrodes for higher performance Li-ion batteries. Journal of Power Sources, 2020, 448, 227376.	7.8	22
7	Nonlinear optical properties of Au M (M = Ag, Cu; m= 1, 2) clusters. Computational and Theoretical Chemistry, 2009, 893, 88-92.	1.5	18
8	Robust Metallic Actuators Based on Nanoporous Gold Rapidly Dealloyed from Goldâ€“Nickel Precursors. Advanced Functional Materials, 2021, 31, 2107241.	14.9	18
9	Quantitative characterization of acid concentration and temperature dependent self-ordering conditions of anodic porous alumina. AIP Advances, 2011, 1, .	1.3	17
10	Semiordered Hierarchical Metallic Network for Fast and Large Charge-Induced Strain. Nano Letters, 2017, 17, 4774-4780.	9.1	17
11	Size dependent structural and electronic properties of MgO nanotube clusters. International Journal of Quantum Chemistry, 2009, 109, 349-356.	2.0	16
12	Simulation and experiment of substrate aluminum grain orientation dependent self-ordering in anodic porous alumina. Journal of Applied Physics, 2013, 113, .	2.5	16
13	Temperature dependent complex photonic band structures in two-dimensional photonic crystals composed of high-temperature superconductors. Journal of Physics Condensed Matter, 2008, 20, 275203.	1.8	15
14	Growth Sustainability of Nanopore Channels in Anodic Aluminum Oxide Guided with Prepatterns. Journal of Physical Chemistry C, 2013, 117, 12183-12190.	3.1	13
15	Simultaneous Enhancement of Actuation Strain and Mechanical Strength of Nanoporous Niâ€“Mn Actuators. Advanced Electronic Materials, 2021, 7, 2100381.	5.1	13
16	Electrochemical Mechanics of Metal Thin Films: Chargeâ€Induced Reversible Surface Stress for Actuation. Advanced Electronic Materials, 2020, 6, 1900364.	5.1	12
17	Photonic bands in two-dimensional metallodielectric photonic crystals composed of metal coated cylinders. Journal of Applied Physics, 2009, 106, 033101.	2.5	10
18	Charge-induced reversible bending in nanoporous alumina-aluminum composite. Applied Physics Letters, 2013, 102, .	3.3	9

#	Article	IF	Citations
19	Theoretical Pore Growth Models for Nanoporous Alumina. Springer Series in Materials Science, 2015, , 31-60.	0.6	9
20	Modelling the Impedance Response of Graded LiFePO₄ Cathodes for Li-Ion Batteries. Journal of the Electrochemical Society, 2022, 169, 010528.	2.9	9
21	Chemo-mechanical softening during in situ nanoindentation of anodic porous alumina with anodization processing. Journal of Applied Physics, 2013, 113, .	2.5	6
22	A Simple Theoretical Model for Ring and Nanotube Radial Breathing Mode. Acta Physico-chimica Sinica, 2008, 24, 1579-1583.	0.6	3
23	Extending the energy-power balance of Li-ion batteries using graded electrodes with precise spatial control of local composition. Journal of Power Sources, 2022, 542, 231758.	7.8	3
24	Numerical Simulation Based on the Established Kinetics Model. Springer Theses, 2015, , 37-60.	0.1	0
25	Research Background and Motivation. Springer Theses, 2015, , 1-20.	0.1	0
26	Fast Fabrication of Self-ordered Anodic Porous Alumina on Oriented Aluminum Grains. Springer Theses, 2015, , 105-126.	0.1	0
27	Establishment of a Kinetics Model. Springer Theses, 2015, , 23-35.	0.1	0
28	Chemomechanical Softening During In Situ Nanoindentation of Anodic Porous Alumina with Anodization Processing. Springer Theses, 2015, , 143-160.	0.1	0
29	Experimental Verification I: Growth Sustainability of Nanopore Channels Guided with Pre-patterns. Springer Theses, 2015, , 61-73.	0.1	0