

Sungwook Mhin

List of Publications by Year in descending order

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64
papers

1,717
citations

331670

21
h-index

289244

40
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66
all docs

66
docs citations

66
times ranked

2358
citing authors

#	ARTICLE	IF	CITATIONS
1	Advantageous crystalline–amorphous phase boundary for enhanced electrochemical water oxidation. <i>Energy and Environmental Science</i> , 2019, 12, 2443-2454.	30.8	315
2	Parallelized Reaction Pathway and Stronger Internal Band Bending by Partial Oxidation of Metal Sulfide–Graphene Composites: Important Factors of Synergistic Oxygen Evolution Reaction Enhancement. <i>ACS Catalysis</i> , 2018, 8, 4091-4102.	11.2	116
3	Stable and High-Energy-Density Zn-Ion Rechargeable Batteries Based on a MoS ₂ -Coated Zn Anode. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 27249-27257.	8.0	110
4	Electrochemically activated cobalt nickel sulfide for an efficient oxygen evolution reaction: partial amorphization and phase control. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3592-3602.	10.3	81
5	Electronically Double-Layered Metal Boride Hollow Nanoprism as an Excellent and Robust Water Oxidation Electrocatalysts. <i>Advanced Energy Materials</i> , 2019, 9, 1803799.	19.5	74
6	Controllable white upconversion luminescence in Ho ³⁺ /Tm ³⁺ /Yb ³⁺ co-doped CaMoO ₄ . <i>Journal of Materials Chemistry</i> , 2012, 22, 3997.	6.7	61
7	Graphene Oxide Quantum Dots Derived from Coal for Bioimaging: Facile and Green Approach. <i>Scientific Reports</i> , 2019, 9, 4101.	3.3	57
8	Quasi-intrinsic colossal permittivity in Nb and In co-doped rutile TiO ₂ nanoceramics synthesized through a oxalate chemical-solution route combined with spark plasma sintering. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 16864-16875.	2.8	51
9	Boosting oxygen evolution reaction of transition metal layered double hydroxide by metalloid incorporation. <i>Nano Energy</i> , 2020, 75, 104945.	16.0	47
10	Ultrafast Method for Selective Design of Graphene Quantum Dots with Highly Efficient Blue Emission. <i>Scientific Reports</i> , 2016, 6, 38423.	3.3	45
11	Dual-Phase Engineering of Nickel Boride–Hydroxide Nanoparticles toward High-Performance Water Oxidation Electrocatalysts. <i>Advanced Functional Materials</i> , 2020, 30, 2004330.	14.9	44
12	Effect of Fe incorporation on cation distributions and hopping conduction in Ni-Mn-Co-O spinel oxides. <i>Journal of Alloys and Compounds</i> , 2018, 732, 486-490.	5.5	39
13	Sulfur-incorporated nickel-iron layered double hydroxides for effective oxygen evolution reaction in seawater. <i>Applied Surface Science</i> , 2021, 568, 150965.	6.1	34
14	Effect of High Cobalt Concentration on Hopping Motion in Cobalt Manganese Spinel Oxide (Co _x Mn ₃ O ₄ , <i>x</i> ≈ 2.3). <i>Journal of Physical Chemistry C</i> , 2016, 120, 13667-13674.	3.1	33
15	Stabilizing oxygen intermediates on redox-flexible active sites in multimetallic Ni–Fe–Al–Co layered double hydroxide anodes for excellent alkaline and seawater electrolysis. <i>Journal of Materials Chemistry A</i> , 2021, 9, 27332-27346.	10.3	33
16	A high-performance PDMS-based triboelectric nanogenerator fabricated using surface-modified carbon nanotubes via pulsed laser ablation. <i>Journal of Materials Chemistry A</i> , 2022, 10, 1299-1308.	10.3	32
17	Pulsed Laser Confinement of Single Atomic Catalysts on Carbon Nanotube Matrix for Enhanced Oxygen Evolution Reaction. <i>ACS Nano</i> , 2021, 15, 4416-4428.	14.6	29
18	Few-layered metallic 1T-MoS ₂ /TiO ₂ with exposed (001) facets: two-dimensional nanocomposites for enhanced photocatalytic activities. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 28207-28215.	2.8	28

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19	Fe doped Ni-Mn-Co-O ceramics with varying Fe content as negative temperature coefficient sensors. <i>Ceramics International</i> , 2017, 43, 10528-10532.	4.8	25
20	Polarized Electronic Configuration in Transition Metal Fluoride Oxide Hollow Nanoprism for Highly Efficient and Robust Water Splitting. <i>ACS Applied Energy Materials</i> , 2019, 2, 3999-4007.	5.1	24
21	Simple Route for Y ₃ Al ₅ O ₁₂ :Ce ³⁺ Colloidal Nanocrystal via Laser Ablation in Deionized Water and its Luminescence. <i>Electrochemical and Solid-State Letters</i> , 2008, 11, J23.	2.2	23
22	Residual neural network-based fully convolutional network for microstructure segmentation. <i>Science and Technology of Welding and Joining</i> , 2020, 25, 282-289.	3.1	23
23	NiFe Layered Double Hydroxide Electrocatalysts for an Efficient Oxygen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2022, 5, 8592-8600.	5.1	23
24	Simple synthetic route for hydroxyapatite colloidal nanoparticles via a Nd:YAG laser ablation in liquid medium. <i>Applied Physics A: Materials Science and Processing</i> , 2009, 96, 435-440.	2.3	21
25	Phase and texture evolution in solution deposited lead zirconate titanate thin films: Formation and role of the Pt ₃ Pb intermetallic phase. <i>Journal of Applied Physics</i> , 2013, 113, .	2.5	20
26	Luminescence of Nanocrystalline Tb ₃ Al ₅ O ₁₂ :Ce ³⁺ Phosphors Synthesized by Nitrate-Citrate Gel Combustion Method. <i>Journal of the Electrochemical Society</i> , 2008, 155, J293.	2.9	19
27	Synthesis of (Ni,Mn,Co)O ₄ nanopowder with single cubic spinel phase via combustion method. <i>Ceramics International</i> , 2016, 42, 13654-13658.	4.8	18
28	Ni-doped carbon nanotubes fabricated by pulsed laser ablation in liquid as efficient electrocatalysts for oxygen evolution reaction. <i>Applied Surface Science</i> , 2021, 547, 149197.	6.1	17
29	Synthesis of NiCo ₂ O ₄ Nanostructures and Their Electrochemical Properties for Glucose Detection. <i>Nanomaterials</i> , 2021, 11, 55.	4.1	17
30	Combined Experimental and Computational Methods Reveal the Evolution of Buried Interfaces during Synthesis of Ferroelectric Thin Films. <i>Advanced Materials Interfaces</i> , 2015, 2, 1500181.	3.7	16
31	The effect of pH control on synthesis of Sr doped barium titanate nanopowder by oxalate precipitation method. <i>Ceramics International</i> , 2018, 44, 1420-1424.	4.8	16
32	<i>In situ</i> x-ray diffraction of solution-derived ferroelectric thin films for quantitative phase and texture evolution measurement. <i>Journal of Applied Physics</i> , 2012, 112, .	2.5	14
33	Synthesis of transition metal sulfide and reduced graphene oxide hybrids as efficient electrocatalysts for oxygen evolution reactions. <i>Royal Society Open Science</i> , 2018, 5, 180927.	2.4	14
34	Ti/TiO ₂ /SiO ₂ multilayer thin films with enhanced spectral selectivity for optical narrow bandpass filters. <i>Scientific Reports</i> , 2022, 12, 32.	3.3	14
35	Oxygen Evolution Reaction of Co-Mn-O Electrocatalyst Prepared by Solution Combustion Synthesis. <i>Catalysts</i> , 2019, 9, 564.	3.5	13
36	Fundamental Understanding of the Formation Mechanism for Graphene Quantum Dots Fabricated by Pulsed Laser Fragmentation in Liquid: Experimental and Theoretical Insight. <i>Small</i> , 2020, 16, 2003538.	10.0	13

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37	Effect of Cu/Fe addition on the microstructures and electrical performances of Ni-Co-Mn oxides. Journal of Alloys and Compounds, 2021, 859, 157769.	5.5	13
38	Ni-Fe-Cu layered double hydroxides as high-performance electrocatalysts for alkaline water oxidation. International Journal of Energy Research, 2021, 45, 15312-15322.	4.5	13
39	Synthesis of rod-type Co _{2.4} Mn _{0.6} O ₄ via oxalate precipitation for water splitting catalysts. Applied Surface Science, 2020, 510, 145390.	6.1	12
40	Electrochemical performance of the spinel NiCo ₂ O ₄ based nanostructure synthesized by chemical bath method for glucose detection. Applied Surface Science, 2021, 545, 148927.	6.1	12
41	Phase evolution of (Ni, Co, Mn)O ₄ during heat treatment with high temperature in situ X-ray diffraction. Ceramics International, 2016, 42, 5412-5417.	4.8	11
42	Magnetic and magnetotransport properties of Ba ₂ FeMoO ₆ pulsed laser deposited thin films. Journal of Applied Physics, 2012, 112, .	2.5	9
43	CoFeS ₂ @CoS ₂ Nanocubes Entangled with CNT for Efficient Bifunctional Performance for Oxygen Evolution and Oxygen Reduction Reactions. Nanomaterials, 2022, 12, 983.	4.1	9
44	Phase and Texture Evolution in Chemically Derived PZT Thin Films on Pt Substrates. Journal of the American Ceramic Society, 2014, 97, 2973-2979.	3.8	8
45	Hopping conduction in (Ni,Co,Mn)O ₄ prepared by different synthetic routes: Conventional and spark plasma sintering. Ceramics International, 2017, 43, 16070-16075.	4.8	8
46	Facile Design of Conductive Ag-PDMS Electrodes for Stretchable Electrodes. Journal of Electronic Materials, 2019, 48, 79-84.	2.2	8
47	Effect of Switching Atmospheric Conditions during Crystallization on the Phase Evolution of Solution-Derived Lead Zirconate Titanate Thin Films. Journal of the American Ceramic Society, 2013, 96, 2706-2709.	3.8	7
48	Role of the PbTiO ₃ Seed Layer on the Crystallization Behavior of PZT Thin Films. Journal of the American Ceramic Society, 2015, 98, 1407-1412.	3.8	7
49	Computational atomic-scale design and experimental verification for layered double hydroxide as an efficient alkaline oxygen evolution reaction catalyst. International Journal of Energy Research, 2022, 46, 11972-11988.	4.5	6
50	Synthesis of Co _x Mn _{1-x} O ₄ (0.9 x 0.0) with controlled phase and composition via a gel-combustion method. Ceramics International, 2016, 42, Analysis of structural effect on mechanical stress at backside deep trench isolation using finite element method. Microelectronic Engineering, 2016, 154, 42-47.	4.8	5
51	with controlled phase and composition via a gel-combustion method. Ceramics International, 2016, 42, Analysis of structural effect on mechanical stress at backside deep trench isolation using finite element method. Microelectronic Engineering, 2016, 154, 42-47.	2.4	5
52	The effects of oxygen pressure on disordering and magneto-transport properties of Ba ₂ FeMoO ₆ thin films grown via pulsed laser deposition. Journal of Applied Physics, 2015, 118, 033903.	2.5	4
53	Room Temperature Bonding on Interface Between Metal and Ceramic. Journal of Electronic Materials, 2019, 48, 72-78.	2.2	4
54	Pulsed laser assisted synthesis of Ho ³⁺ /Yb ³⁺ codoped CaMoO ₄ nanocolloid and its upconversion luminescence. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2015, 33, .	1.2	3

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55	Crystal structures and electrical properties of cobalt manganese spinel oxides. <i>Materials Today Communications</i> , 2020, 25, 101298.	1.9	3
56	Hierarchical core-shell Ni-Co-Cu-Pd alloys for efficient formic acid oxidation reaction with high mass activity. <i>Applied Surface Science</i> , 2022, 585, 152694.	6.1	3
57	Thermally-driven unequal cation vacancy formation and its effect on the dielectric properties in K _{0.5} Na _{0.5} NbO ₃ ceramics. <i>Journal of the Korean Physical Society</i> , 2017, 71, 979-985.	0.7	2
58	Room-temperature ferromagnetic organic magnets derived from fluorographite via facile halide exchange. <i>International Journal of Applied Ceramic Technology</i> , 0, , .	2.1	1
59	Effect of plasma oxynitriding temperature on wear and corrosion resistance of the AISI 4140 steel. <i>International Journal of Applied Ceramic Technology</i> , 2023, 20, 1002-1009.	2.1	1
60	Crystal Structure of Lu _{2.92} Ce _{0.08} MgAl ₃ SiO ₁₂ Garnet Phosphor and Its Photoluminescent Properties. <i>International Journal of Applied Ceramic Technology</i> , 2016, 13, 228-233.	2.1	0
61	Stress-induced trench narrowing in Cu interconnect of sub-20 nm node: FEM simulation. <i>Materials Science in Semiconductor Processing</i> , 2016, 56, 100-105.	4.0	0
62	Graphene Quantum Dots: Fundamental Understanding of the Formation Mechanism for Graphene Quantum Dots Fabricated by Pulsed Laser Fragmentation in Liquid: Experimental and Theoretical Insight (Small 38/2020). <i>Small</i> , 2020, 16, 2070210.	10.0	0
63	Crystal structure of Mn-Co-Ni thermistor. <i>Journal of the Korean Crystal Growth and Crystal Technology</i> , 2015, 25, 225-229.	0.3	0
64	Effect of Surface Activated Bonding on Adhesion Strength Between Al and Al ₂ O ₃ . <i>Nanoscience and Nanotechnology Letters</i> , 2017, 9, 1217-1221.	0.4	0