

Chung-Yul Yoo

List of Publications by Year in descending order

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80
papers

2,190
citations

172207

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docs citations

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times ranked

2781
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantitative analysis of ceria co-doped with samarium and gadolinium using laser-induced breakdown spectroscopy. <i>Analytical Methods</i> , 2022, , .	1.3	5
2	Electroactive self-polymerized dopamine with improved desalination performance for flow- and fixed-electrodes capacitive deionization. <i>Applied Surface Science</i> , 2022, 579, 152154.	3.1	16
3	Chloroaluminate Anion Intercalation in Graphene and Graphite: From Two-Dimensional Devices to Aluminum-Ion Batteries. <i>Nano Letters</i> , 2022, 22, 1726-1733.	4.5	13
4	Enhanced salt removal performance of flow electrode capacitive deionization with high cell operational potential. <i>Separation and Purification Technology</i> , 2021, 254, 117500.	3.9	32
5	Oxygen permeation and oxidative coupling of methane with NiFe ₂ O ₄ -Gd _{0.1} Ce _{0.9} O _{2-δ} composite membrane. <i>Ionics</i> , 2021, 27, 1667-1675.	1.2	1
6	Comparative Study of Epoxy-C ₆ H ₂ PO ₄ Composite Electrolytes and Porous Metal Based Electrocatalysts for Solid Acid Electrochemical Cells. <i>Membranes</i> , 2021, 11, 196.	1.4	4
7	Univariate and multivariate analyses of Gd in gadolinia-doped ceria using laser-induced breakdown spectroscopy. <i>Optik</i> , 2021, 240, 166909.	1.4	6
8	Investigation of Lithium Ion Diffusion of Graphite Anode by the Galvanostatic Intermittent Titration Technique. <i>Materials</i> , 2021, 14, 4683.	1.3	43
9	ZIF-67 metal-organic frameworks and CNTs-derived nanoporous carbon structures as novel electrodes for flow-electrode capacitive deionization. <i>Separation and Purification Technology</i> , 2021, 277, 119466.	3.9	12
10	Multivariate stoichiometric analysis of gadolinium-doped ceria using low-power low-resolution laser-induced breakdown spectroscopy. <i>Optik</i> , 2021, 247, 167919.	1.4	4
11	Energy storage and generation through desalination using flow-electrodes capacitive deionization. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 81, 317-322.	2.9	31
12	Attachable micropseudocapacitors using highly swollen laser-induced-graphene electrodes. <i>Chemical Engineering Journal</i> , 2020, 386, 123972.	6.6	11
13	Thermal diffusion barrier metallization based on Co-Mo powder-mixed composites for n-type skutterudite ((Mm,Sm) _y Co ₄ Sb ₁₂) thermoelectric devices. <i>Journal of Alloys and Compounds</i> , 2020, 818, 152917.	2.8	8
14	Enhanced Desalination Performance of Capacitive Deionization Using Nanoporous Carbon Derived from ZIF-67 Metal Organic Frameworks and CNTs. <i>Nanomaterials</i> , 2020, 10, 2091.	1.9	24
15	Improved Desalination Performance of Flow- and Fixed-Capacitive Deionization using Redox-Active Quinone. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 16701-16710.	3.2	27
16	Effects of Nb and Sn co-doping on the structure and properties of SrCoO _{3-δ} oxygen transport membranes. <i>Journal of Asian Ceramic Societies</i> , 2020, 8, 519-527.	1.0	3
17	Oxygen surface exchange kinetics of Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O _{3-δ} . <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 10158-10169.	1.3	5
18	Practical evaluation of electrical contact resistance of thermoelectric legs at high operation temperature. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 14112-14119.	1.1	4

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19	Continuous Lithium Extraction from Aqueous Solution Using Flow-Electrode Capacitive Deionization. <i>Energies</i> , 2019, 12, 2913.	1.6	30
20	Preparation of metal oxide/polyaniline/N-MWCNT hybrid composite electrodes for electrocatalytic synthesis of ammonia at atmospheric pressure. <i>Sustainable Energy and Fuels</i> , 2019, 3, 431-438.	2.5	9
21	Determination of the thermoelectric properties of a skutterudite-based device at practical operating temperatures by impedance spectroscopy. <i>Applied Energy</i> , 2019, 251, 113341.	5.1	9
22	Ultrafast charge transfer coupled with lattice phonons in two-dimensional covalent organic frameworks. <i>Nature Communications</i> , 2019, 10, 1873.	5.8	93
23	Single-crystalline Co ₂ Si nanowires directly synthesized on silicon substrate for high-performance micro-supercapacitor. <i>Chemical Engineering Journal</i> , 2019, 370, 973-979.	6.6	8
24	Electrical characteristics and detailed interfacial structures of Ag/Ni metallization on polycrystalline thermoelectric SnSe. <i>Journal of Materials Science and Technology</i> , 2019, 35, 711-718.	5.6	15
25	Direct Comparison of Thermoelectric Devices Using Impedance Spectroscopy. <i>Journal of Electronic Materials</i> , 2019, 48, 1833-1839.	1.0	1
26	Flow-electrode capacitive deionization with highly enhanced salt removal performance utilizing high-aspect ratio functionalized carbon nanotubes. <i>Water Research</i> , 2019, 151, 252-259.	5.3	116
27	High-Power-Density Skutterudite-Based Thermoelectric Modules with Ultralow Contact Resistivity Using Fe/Ni Metallization Layers. <i>ACS Applied Energy Materials</i> , 2018, 1, 1603-1611.	2.5	44
28	Self-templated synthesis of interconnected porous carbon nanosheets with controllable pore size: Mechanism and electrochemical capacitor application. <i>Microporous and Mesoporous Materials</i> , 2018, 261, 119-125.	2.2	28
29	Electrochemical Synthesis of Ammonia from Water and Nitrogen: A Lithium-Mediated Approach Using Lithium-Ion Conducting Glass Ceramics. <i>ChemSusChem</i> , 2018, 11, 120-124.	3.6	71
30	Impedance spectroscopy for assessment of thermoelectric module properties under a practical operating temperature. <i>Energy</i> , 2018, 152, 834-839.	4.5	16
31	Structural and Electrochemical Properties of Dense Yttria-Doped Barium Zirconate Prepared by Solid-State Reactive Sintering. <i>Energies</i> , 2018, 11, 3083.	1.6	26
32	Lithium-Mediated Ammonia Electro-Synthesis: Effect of CsClO ₄ on Lithium Plating Efficiency and Ammonia Synthesis. <i>Journal of the Electrochemical Society</i> , 2018, 165, F1027-F1031.	1.3	16
33	Anion-exchange-membrane-based electrochemical synthesis of ammonia as a carrier of hydrogen energy. <i>Korean Journal of Chemical Engineering</i> , 2018, 35, 1620-1625.	1.2	17
34	Precisely Geometry Controlled Microsupercapacitors for Ultrahigh Areal Capacitance, Volumetric Capacitance, and Energy Density. <i>Chemistry of Materials</i> , 2018, 30, 3979-3990.	3.2	52
35	Crystal structures of new layered perovskite-type oxyfluorides, CsANb ₂ O ₆ F (A = Sr and Ca) and comparison with pyrochlore-type CsNb ₂ O ₅ F. <i>Journal of Solid State Chemistry</i> , 2018, 267, 146-152.	1.4	6
36	Determination of oxygen nonstoichiometry in SrFeO _{3-δ} by solid-state Coulometric titration. <i>Journal of the American Ceramic Society</i> , 2017, 100, 2690-2699.	1.9	16

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37	Electrochemical Ammonia Synthesis Mediated by Titanocene Dichloride in Aqueous Electrolytes under Ambient Conditions. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 9662-9666.	3.2	40
38	Electrochemical analysis of slurry electrodes for flow-electrode capacitive deionization. <i>Journal of Electroanalytical Chemistry</i> , 2017, 806, 50-60.	1.9	51
39	Role of Protons in Electrochemical Ammonia Synthesis Using Solid-State Electrolytes. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 7972-7978.	3.2	20
40	Mussel-inspired surface functionalization of porous carbon nanosheets using polydopamine and Fe ³⁺ /tannic acid layers for high-performance electrochemical capacitors. <i>Journal of Materials Chemistry A</i> , 2017, 5, 25368-25377.	5.2	37
41	Ag/Ni Metallization Bilayer: A Functional Layer for Highly Efficient Polycrystalline SnSe Thermoelectric Modules. <i>Journal of Electronic Materials</i> , 2017, 46, 848-855.	1.0	14
42	Oxidation and sublimation suppression of PbTe thermoelectric legs by plasma coated ceramic layers. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2016, 34, 061101.	0.9	2
43	Oxidation suppression characteristics of the YSZ coating on Mg ₂ Si thermoelectric legs. <i>Ceramics International</i> , 2016, 42, 10279-10288.	2.3	17
44	Crucial role of a nickel substrate in Co ₃ O ₄ pseudocapacitor directly grown on nickel and its electrochemical properties. <i>Journal of Alloys and Compounds</i> , 2016, 676, 407-413.	2.8	10
45	Communication—Electrochemical Reduction of Nitrogen to Ammonia in 2-Propanol under Ambient Temperature and Pressure. <i>Journal of the Electrochemical Society</i> , 2016, 163, F610-F612.	1.3	109
46	Electrochemical synthesis of ammonia from water and nitrogen catalyzed by nano-Fe ₂ O ₃ and CoFe ₂ O ₄ suspended in a molten LiCl-KCl-CsCl electrolyte. <i>Korean Journal of Chemical Engineering</i> , 2016, 33, 1777-1780.	1.2	31
47	Unraveling Crystal Structure and Transport Properties of Fast Ion Conducting SrCo _{0.9} Nb _{0.1} O _{3-δ} . <i>Journal of Physical Chemistry C</i> , 2016, 120, 22248-22256.	1.5	16
48	Synthesis, crystal structure, and ionic conductivity of a new layered metal phosphate, Li ₂ Sr ₂ Al(PO ₄) ₃ . <i>Journal of Solid State Chemistry</i> , 2016, 243, 12-17.	1.4	9
49	A new strategy for enhancing the thermo-mechanical and chemical stability of dual-phase mixed ionic electronic conductor oxygen membranes. <i>Journal of Materials Chemistry A</i> , 2016, 4, 13549-13554.	5.2	20
50	Electrochemical Synthesis of Ammonia from Water and Nitrogen in Ethylenediamine under Ambient Temperature and Pressure. <i>Journal of the Electrochemical Society</i> , 2016, 163, F1523-F1526.	1.3	81
51	5L-Scale Magnesio-Milling Reduction of Nanostructured SiO ₂ for High Capacity Silicon Anodes in Lithium-Ion Batteries. <i>Nano Letters</i> , 2016, 16, 7261-7269.	4.5	67
52	Effects of Ni diffusion on the accelerated conductivity degradation of scandia-stabilized zirconia films under a reducing atmosphere. <i>Journal of the European Ceramic Society</i> , 2016, 36, 1835-1839.	2.8	17
53	Investigation of Electrochemical Properties of Model Lanthanum Strontium Cobalt Ferrite-Based Cathodes for Proton Ceramic Fuel Cells. <i>Electrocatalysis</i> , 2016, 7, 280-286.	1.5	17
54	Electrochemical ammonia synthesis from steam and nitrogen using proton conducting yttrium doped barium zirconate electrolyte with silver, platinum, and lanthanum strontium cobalt ferrite electrocatalyst. <i>Journal of Power Sources</i> , 2015, 284, 245-251.	4.0	78

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55	Preparation, crystal structure, and oxygen permeability of Pr _{0.5} Sr _{0.5} Co _{1-x} Fe _x O _{3-δ} perovskites. <i>Materials Letters</i> , 2015, 161, 33-36.	1.3	5
56	Enhanced chemical stability and sinterability of refined proton-conducting perovskite: Case study of BaCe _{0.5} Zr _{0.3} Y _{0.2} O _{3-δ} . <i>Journal of the European Ceramic Society</i> , 2015, 35, 1855-1863.	2.8	17
57	Low-cost and energy-efficient asymmetric nickel electrode for alkaline water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 10720-10725.	3.8	31
58	Enhanced durability of a proton conducting oxide fuel cell with a purified yttrium-doped barium zirconate-cerate electrolyte. <i>Journal of Power Sources</i> , 2015, 278, 320-324.	4.0	20
59	Substantial Oxygen Flux in Dual-Phase Membrane of Ceria and Pure Electronic Conductor by Tailoring the Surface. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 14699-14707.	4.0	34
60	Chemically and thermo-mechanically stable LSM-YSZ segmented oxygen permeable ceramic membrane. <i>Journal of Membrane Science</i> , 2015, 486, 222-228.	4.1	32
61	Pseudocapacitive slurry electrodes using redox-active quinone for high-performance flow capacitors: an atomic-level understanding of pore texture and capacitance enhancement. <i>Journal of Materials Chemistry A</i> , 2015, 3, 23323-23332.	5.2	58
62	The effects of NiO addition on the structure and transport properties of proton conducting BaZr _{0.8} Y _{0.2} O _{3-δ} . <i>Journal of Alloys and Compounds</i> , 2015, 621, 263-267.	2.8	43
63	Oxygen surface exchange kinetics on PrBaCo ₂ O _{5+δ} . <i>Solid State Ionics</i> , 2014, 262, 668-671.	1.3	21
64	Soft chemical synthesis and the role of potassium pentahydrogen bis(phosphate) in a proton conducting composite electrolyte based on potassium dihydrogen phosphate. <i>Journal of Power Sources</i> , 2014, 260, 159-162.	4.0	3
65	Mosaic-shaped cathode for highly durable solid oxide fuel cell under thermal stress. <i>Journal of Power Sources</i> , 2014, 247, 534-538.	4.0	3
66	Oxygen transport kinetics of the misfit layered oxide Ca ₃ Co ₄ O _{9+δ} . <i>Journal of Materials Chemistry A</i> , 2014, 2, 19717-19725.	5.2	38
67	Novel oxygen transport membranes with tunable segmented structures. <i>Journal of Materials Chemistry A</i> , 2014, 2, 8174-8178.	5.2	15
68	Dramatically Enhanced Oxygen Fluxes in Fluorite-Rich Dual-Phase Membrane by Surface Modification. <i>Chemistry of Materials</i> , 2014, 26, 4387-4394.	3.2	52
69	Electrochemical Synthesis of Ammonia from Water and Nitrogen using a Pt/GDC/Pt Cell. <i>Korean Chemical Engineering Research</i> , 2014, 52, 58-62.	0.2	16
70	The effects of Fe-substitution on the crystal structure and oxygen permeability of PrBaCo ₂ O _{5+δ} . <i>Materials Letters</i> , 2013, 108, 65-68.	1.3	15
71	Contribution of the surface exchange kinetics to the oxygen transport properties in Gd _{0.1} Ce _{0.9} O _{2-δ} -La _{0.6} Sr _{0.4} Co _{0.2} Fe _{0.8} O _{3-δ} dual-phase membrane. <i>Solid State Ionics</i> , 2013, 253, 64-69.	1.3	45
72	Bulk transport and oxygen surface exchange of the mixed ionic-electronic conductor Ce _{1-x} Tb _x O _{2-δ} (x = 0.1, 0.2, 0.5). <i>Journal of Materials Chemistry A</i> , 2013, 1, 10234.	5.2	40

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73	Oxygen surface exchange kinetics of SrTi _{1-x} FexO ₃ mixed conducting oxides. Physical Chemistry Chemical Physics, 2012, 14, 11759.	1.3	46
74	Oxygen surface exchange kinetics of erbia-stabilized bismuth oxide. Journal of Solid State Electrochemistry, 2011, 15, 231-236.	1.2	36
75	Performance and stability of niobium-substituted Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ membranes. Solid State Ionics, 2011, 195, 1-6.	1.3	69
76	Phase transformation and oxygen equilibration kinetics of pure and Zr-doped Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ perovskite oxide probed by electrical conductivity relaxation. Applied Physics Letters, 2010, 96, .	1.5	68
77	Synchrotron study of the garnet-type oxide Li ₆ CaSm ₂ Ta ₂ O ₁₂ . Acta Crystallographica Section E: Structure Reports Online, 2009, 65, i74-i74.	0.2	2
78	Dimensional modification of oxyfluoride lattice: Preparation and structure of A ₂ Nb ₂ O ₆ F (A ²⁺ =Na, K,) Tj ETQq 0 0 rgBT /Overlock	1.9	9
79	A new layered perovskite, KSrNb ₂ O ₆ F, by powder neutron diffraction. Acta Crystallographica Section C: Crystal Structure Communications, 2007, 63, i63-i65.	0.4	9
80	KCaNb ₂ O ₆ F from a combined synchrotron X-ray and neutron powder diffraction study. Acta Crystallographica Section E: Structure Reports Online, 2007, 63, i203-i204.	0.2	3