

Eric N Coker

List of Publications by Year in descending order

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81
papers

4,326
citations

147801

31
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106344

65
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84
all docs

84
docs citations

84
times ranked

6964
citing authors

#	ARTICLE	IF	CITATIONS
1	Oxygen Vacancy Enhanced Photocatalytic Activity of Perovskite SrTiO ₃ . ACS Applied Materials & Interfaces, 2014, 6, 19184-19190.	8.0	608
2	Synthesis of Platinum Nanowire Networks Using a Soft Template. Nano Letters, 2007, 7, 3650-3655.	9.1	328
3	Sr- and Mn-doped LaAlO ₃ for solar thermochemical H ₂ and CO production. Energy and Environmental Science, 2013, 6, 2424.	30.8	323
4	Understanding catalysis in a multiphase two-dimensional transition metal dichalcogenide. Nature Communications, 2015, 6, 8311.	12.8	260
5	Templateless Assembly of Molecularly Aligned Conductive Polymer Nanowires: A New Approach for Oriented Nanostructures. Chemistry - A European Journal, 2003, 9, 604-611.	3.3	207
6	Establishing the effects of mesoporous silica nanoparticle properties on in vivo disposition using imaging-based pharmacokinetics. Nature Communications, 2018, 9, 4551.	12.8	189
7	Hydrogen Production via Chemical Looping Redox Cycles Using Atomic Layer Deposition-Synthesized Iron Oxide and Cobalt Ferrites. Chemistry of Materials, 2011, 23, 2030-2038.	6.7	153
8	Investigation of La _{1-x} Sr _x Co _{1-y} Mn _y O ₃ (M = Mn, Fe) perovskite materials as thermochemical energy storage media. Solar Energy, 2015, 118, 451-459.	6.1	117
9	Water properties under nano-scale confinement. Scientific Reports, 2019, 9, 8246.	3.3	114
10	Role of Cu-Ion Doping in Cu _{1-x} MnO ₂ Nanowire Electrocatalysts for the Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2014, 118, 17342-17350.	3.1	112
11	Electrodeposited Ni _x Co _{3-x} O ₄ nanostructured films as bifunctional oxygen electrocatalysts. Chemical Communications, 2015, 51, 9511-9514.	4.1	107
12	Versatile Surface Functionalization of Metal-Organic Frameworks through Direct Metal Coordination with a Phenolic Lipid Enables Diverse Applications. Advanced Functional Materials, 2018, 28, 1705274.	14.9	90
13	Nonstoichiometric Perovskite Oxides for Solar Thermochemical H ₂ and CO Production. Energy Procedia, 2014, 49, 2009-2018.	1.8	89
14	Metal-Organic Framework Nanoparticle-Assisted Cryopreservation of Red Blood Cells. Journal of the American Chemical Society, 2019, 141, 7789-7796.	13.7	82
15	Doped calcium manganites for advanced high-temperature thermochemical energy storage. International Journal of Energy Research, 2016, 40, 280-284.	4.5	81
16	The effects of the silica source on the crystallization of zeolite NaX. Zeolites, 1993, 13, 645-653.	0.5	78
17	Porous One-Dimensional Nanostructures through Confined Cooperative Self-Assembly. Nano Letters, 2011, 11, 5196-5200.	9.1	76
18	Chapter 11 Ion exchange in zeolites. Studies in Surface Science and Catalysis, 2001, 137, 467-524.	1.5	68

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19	Predicting the solar thermochemical water splitting ability and reaction mechanism of metal oxides: a case study of the hercynite family of water splitting cycles. <i>Energy and Environmental Science</i> , 2015, 8, 3687-3699.	30.8	68
20	Ultra-thin enzymatic liquid membrane for CO ₂ separation and capture. <i>Nature Communications</i> , 2018, 9, 990.	12.8	62
21	Ferrite-YSZ composites for solar thermochemical production of synthetic fuels: in operando characterization of CO ₂ reduction. <i>Journal of Materials Chemistry</i> , 2011, 21, 10767.	6.7	58
22	Understanding the Connection between Nanoparticle Uptake and Cancer Treatment Efficacy using Mathematical Modeling. <i>Scientific Reports</i> , 2018, 8, 7538.	3.3	49
23	Microcalorimetric Investigation of H-ZSM-5 Zeolites Using an Ultrahigh-Vacuum System for Gas Adsorption. <i>The Journal of Physical Chemistry</i> , 1994, 98, 8053-8060.	2.9	48
24	Modular Metal-Organic Polyhedra Superassembly: From Molecular-Level Design to Targeted Drug Delivery. <i>Advanced Materials</i> , 2019, 31, e1806774.	21.0	48
25	Metallic Phase Change Material Thermal Storage for Dish Stirling. <i>Energy Procedia</i> , 2015, 69, 726-736.	1.8	46
26	Formation of a Reversible, Intramolecular Main-Group Metal-CO ₂ Adduct. <i>Inorganic Chemistry</i> , 2011, 50, 11288-11290.	4.0	44
27	Oxygen transport and isotopic exchange in iron oxide/YSZ thermochemically-active materials via splitting of C(18O) ₂ at high temperature studied by thermogravimetric analysis and secondary ion mass spectrometry. <i>Journal of Materials Chemistry</i> , 2012, 22, 6726.	6.7	39
28	Coking and regeneration of palladium-doped H ₃ PW ₁₂ O ₄₀ /SiO ₂ catalysts. <i>Catalysis Letters</i> , 2000, 66, 53-57.	2.6	37
29	Templated growth of platinum nanowheels using the inhomogeneous reaction environment of bicelles. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 4846-4852.	2.8	37
30	Kinetics of ion exchange in quasi-crystalline aluminosilicate zeolite precursors. <i>Microporous and Mesoporous Materials</i> , 2005, 84, 171-178.	4.4	32
31	Zeolitic membranes. <i>Current Opinion in Solid State and Materials Science</i> , 1996, 1, 65-68.	11.5	31
32	Nanostructured Pt/C electrocatalysts with high platinum dispersions through zeolite-templating. <i>Microporous and Mesoporous Materials</i> , 2007, 101, 440-444.	4.4	28
33	Cobalt Ferrite in YSZ for Use as Reactive Material in Solar Thermochemical Water and Carbon Dioxide Splitting, Part I: Material Characterization. <i>Jom</i> , 2013, 65, 1670-1681.	1.9	27
34	Synthetic fossilization of soft biological tissues and their shape-preserving transformation into silica or electron-conductive replicas. <i>Nature Communications</i> , 2014, 5, 5665.	12.8	27
35	Solar thermal decoupled water electrolysis process I: Proof of concept. <i>Chemical Engineering Science</i> , 2012, 84, 372-380.	3.8	26
36	Adsorption of Benzene and Benzene Derivatives onto Zeolite H-Y Studied by Microcalorimetry. <i>Langmuir</i> , 2000, 16, 1205-1210.	3.5	25

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37	Structurally characterized magnesium carboxylates with tuned melting points. <i>Polyhedron</i> , 2004, 23, 1739-1747.	2.2	24
38	Zeolite-templated Pt/C electrocatalysts. <i>Microporous and Mesoporous Materials</i> , 2007, 104, 236-247.	4.4	24
39	Mechanically Encoded Cellular Shapes for Synthesis of Anisotropic Mesoporous Particles. <i>Journal of the American Chemical Society</i> , 2014, 136, 13138-13141.	13.7	24
40	Advancing Oxide Materials for Thermochemical Production of Solar Fuels. <i>Energy Procedia</i> , 2014, 49, 2019-2026.	1.8	24
41	Nuclear magnetic resonance studies of silicon(IV) complexes in aqueous solution. Tris-catecholato complexes. <i>Polyhedron</i> , 1990, 9, 813-823.	2.2	23
42	The synthesis of zeolites under micro-gravity conditions: a review. <i>Microporous and Mesoporous Materials</i> , 1998, 23, 119-136.	4.4	23
43	Synthesis and Characterization of Structurally Diverse Alkaline-Earth Salen Compounds for Subterranean Fluid Flow Tracking. <i>Inorganic Chemistry</i> , 2018, 57, 2402-2415.	4.0	23
44	Thermochemical Cycle of a Mixed Metal Oxide for Augmentation of Thermal Energy Storage in Solid Particles. <i>Energy Procedia</i> , 2014, 49, 762-771.	1.8	21
45	Zeolite ZSM-5 synthesized in space: catalysts with reduced external surface activity. <i>Microporous and Mesoporous Materials</i> , 2001, 46, 223-236.	4.4	20
46	ABO ₃ (A = La, Ba, Sr, K; B = Co, Mn, Fe) perovskites for thermochemical energy storage. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	20
47	The preparation and characterization of novel Pt/C electrocatalysts with controlled porosity and cluster size. <i>Journal of Materials Chemistry</i> , 2007, 17, 3330.	6.7	19
48	Sorption of bulky aromatic molecules into zeolite NaX. <i>Microporous and Mesoporous Materials</i> , 1998, 22, 261-268.	4.4	16
49	Ion exchange in beryllphosphate-G. Part 1. Ion-exchange equilibria. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1992, 88, 263-272.	1.7	15
50	Impact of copper on the performance and sulfur tolerance of barium-based NO _x storage-reduction catalysts. <i>Applied Catalysis B: Environmental</i> , 2008, 78, 315-323.	20.2	13
51	Cobalt Ferrite in YSZ for Use as Reactive Material in Solar Thermochemical Water and Carbon Dioxide Splitting, Part II: Kinetic Modeling. <i>Jom</i> , 2013, 65, 1682-1693.	1.9	13
52	High Performance Reduction/Oxidation Metal Oxides for Thermochemical Energy Storage (PROMOTES)., 2016, , .		13
53	Solubility and water-softening properties of a crystalline layered sodium silicate, SKS-6. <i>Journal of Materials Chemistry</i> , 1993, 3, 523.	6.7	12
54	Computationally Accelerated Discovery and Experimental Demonstration of Gd _{0.5} La _{0.5} Co _{0.5} Fe _{0.5} O ₃ for Solar Thermochemical Hydrogen Production. <i>Frontiers in Energy Research</i> , 2021, 9, .	2.3	12

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55	Ion exchange in beryllphosphate-G. Part 2. Ion-exchange kinetics. Journal of the Chemical Society, Faraday Transactions, 1992, 88, 273-276.	1.7	11
56	Synthesis and Characterization of Ferrite Materials for Thermochemical CO ₂ Splitting Using Concentrated Solar Energy. ACS Symposium Series, 2010, , 1-13.	0.5	11
57	Compositional and operational impacts on the thermochemical reduction of CO ₂ to CO by iron oxide/yttria-stabilized zirconia. RSC Advances, 2021, 11, 1493-1502.	3.6	11
58	Zeolite synthesis in unstirred batch reactors II. Effect of non-uniform pre-mixing on the crystallization of zeolites A and X. Microporous Materials, 1995, 3, 637-646.	1.6	9
59	Novel high-temperature, high-vacuum, all-metal sample cells for microcalorimetric measurements of solids. Review of Scientific Instruments, 1997, 68, 4521-4524.	1.3	9
60	Experiments with Zeolites at the Secondary School Level: Experience from The Netherlands. Journal of Chemical Education, 1999, 76, 1417.	2.3	9
61	Using in-situ techniques to probe high-temperature reactions: thermochemical cycles for the production of synthetic fuels from CO ₂ and water. Powder Diffraction, 2012, 27, 117-125.	0.2	9
62	Morphology and electrical properties of high-speed flexography-printed graphene. Mikrochimica Acta, 2022, 189, 123.	5.0	9
63	Approaches for the Synthesis of Ultra-Large and Ultra-Small Zeolite Crystals. , 1998, , 121-155.		8
64	Preparation of zeolite X with low levels of iron impurity from reaction mixtures containing triethanolamine. The Journal of Physical Chemistry, 1993, 97, 6465-6469.	2.9	7
65	Zeolite synthesis in unstirred batch reactors I. Nuclear magnetic resonance imaging of non-uniform pre-mixing. Microporous Materials, 1995, 3, 623-636.	1.6	7
66	Properties of Zeolite A Obtained from Powdered Laundry Detergent. Journal of Chemical Education, 1999, 76, 469.	2.3	7
67	Precipitation of Spherical Magnesium(II) Cresolate Particles. Chemistry of Materials, 2003, 15, 309-319.	6.7	7
68	Considerations for the Design of a High-Temperature Particle Reoxidation Reactor for Extraction of Heat in Thermochemical Energy Storage Systems. , 2016, , .		7
69	Study of a Magnetically Stabilized Porous Structure for Thermochemical Water Splitting via TGA, High-Temperature-XRD, and SEM Analyses. Industrial & Engineering Chemistry Research, 2013, 52, 3683-3692.	3.7	6
70	Monitoring of CoS ₂ reactions using high-temperature XRD coupled with gas chromatography (GC). Powder Diffraction, 2016, 31, 90-96.	0.2	6
71	A Thermogravimetric Temperature-Programmed Thermal Redox Protocol for Rapid Screening of Metal Oxides for Solar Thermochemical Hydrogen Production. Frontiers in Energy Research, 2022, 10, .	2.3	6
72	Formation of 6H-Ba ₃ Ce _{0.75} Mn _{2.25} O ₉ during Thermochemical Reduction of 12R-Ba ₄ CeMn ₃ O ₁₂ : Identification of a Polytype in the Ba(Ce,Mn)O ₃ Family. Inorganic Chemistry, 2022, 61, 6128-6137.	4.0	6

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73	Ion exchange equilibria and kinetics in zeolites: influences of framework flexibility and charge density* *Dedicated to the memories of Richard M. Barrer (1910 – 1996) and Lovat V.C. Rees (1927 – 2006). Studies in Surface Science and Catalysis, 2007, 170, 110-120.	1.5	5
74	Modified Calcium Manganites for Thermochemical Energy Storage Applications. Frontiers in Energy Research, 2022, 10, .	2.3	4
75	Surface Functionalized Barium Titanate Nanoparticles: A Combined Experimental and Computational Study. ECS Journal of Solid State Science and Technology, 2022, 11, 063006.	1.8	4
76	High-field nuclear magnetic resonance of thallium in zeolites. Magnetic Resonance in Chemistry, 1993, 31, 1064-1071.	1.9	2
77	ToF-SIMS analysis of iron oxide particle oxidation by isotopic and multivariate analysis. Surface and Interface Analysis, 2013, 45, 320-323.	1.8	2
78	Anomalous Oxidative Diffusion in Titanium Pyrotechnic Powders. Propellants, Explosives, Pyrotechnics, 2017, 42, 293-299.	1.6	2
79	Zeolite-templated electrocatalysts for fuel cells. Studies in Surface Science and Catalysis, 2007, 170, 1552-1557.	1.5	0
80	Synthesis and Analysis of Cobalt Ferrite in YSZ for Use as Reactive Material in Solar Thermochemical Water and Carbon Dioxide Splitting. , 2013, , .		0
81	Near-ambient oxidation of melt-processed aluminum-mercury alloy compounds under air with controlled humidity. Journal of Materials Research, 0, , 1.	2.6	0