Jonathan R Scheffe

List of Publications by Year
in descending order

35 papers	3,620 citations	236925 25 h-index	361022 35 g-index
36 all docs	36 docs citations	36 times ranked	2035 citing authors

#	Article	IF	Citations
1	Syngas production by simultaneous splitting of H2O and CO₂via ceria redox reactions in a high-temperature solar reactor. Energy and Environmental Science, 2012, 5, 6098-6103.	30.8	393
2	Solar Thermochemical CO₂ Splitting Utilizing a Reticulated Porous Ceria Redox System. Energy & Fuels, 2012, 26, 7051-7059.	5.1	331
3	Oxygen exchange materials for solar thermochemical splitting of H2O and CO2: a review. Materials Today, 2014, 17, 341-348.	14.2	322
4	Lanthanumâ€“Strontiumâ€“Manganese Perovskites as Redox Materials for Solar Thermochemical Splitting of H₂O and CO₂. Energy & Fuels, 2013, 27, 4250-4257.	5.1	306
5	Thermodynamic Analysis of Cerium-Based Oxides for Solar Thermochemical Fuel Production. Energy & Fuels, 2012, 26, 1928-1936.	5.1	213
6	A spinel ferrite/hercynite water-splitting redox cycle. International Journal of Hydrogen Energy, 2010, 35, 3333-3340.	7.1	210
7	Thermochemical CO₂ splitting via redox cycling of ceria reticulated foam structures with dual-scale porosities. Physical Chemistry Chemical Physics, 2014, 16, 10503-10511.	2.8	171
8	Demonstration of the Entire Production Chain to Renewable Kerosene via Solar Thermochemical Splitting of H₂O and CO₂. Energy & Fuels, 2015, 29, 3241-3250.	5.1	167
9	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
10	Synthesis, Characterization, and Thermochemical Redox Performance of Hf⁴⁺, Zr⁴⁺, and Sc³⁺ Doped Ceria for Splitting CO₂. Journal of Physical Chemistry C, 2013, 117, 24104-24114.	3.1	153
11	Advances and trends in redox materials for solar thermochemical fuel production. Solar Energy, 2017, 156, 3-20.	6.1	130
12	Kinetics and mechanism of solar-thermochemical H2 production by oxidation of a cobalt ferriteâ€“zirconia composite. Energy and Environmental Science, 2013, 6, 963.	30.8	123
13	Diffusion of Oxygen in Ceria at Elevated Temperatures and Its Application to H₂O/CO₂ Splitting Thermochemical Redox Cycles. Journal of Physical Chemistry C, 2014, 118, 5216-5225.	3.1	119
14	Lanthanum Manganite Perovskites with Ca/Sr Aâ€site and Al Bâ€site Doping as Effective Oxygen Exchange Materials for Solar Thermochemical Fuel Production. Energy Technology, 2015, 3, 1130-1142.	3.8	116
15	Kinetics of CO₂ Reduction over Nonstoichiometric Ceria. Journal of Physical Chemistry C, 2015, 119, 16452-16461.	3.1	114
16	Atomic layer deposition of iron(III) oxide on zirconia nanoparticles in a fluidized bed reactor using ferrocene and oxygen. Thin Solid Films, 2009, 517, 1874-1879.	1.8	103
17	Reticulated porous ceria undergoing thermochemical reduction with high-flux irradiation. International Journal of Heat and Mass Transfer, 2017, 107, 439-449.	4.8	78
18	Thermal Reduction of Ceria within an Aerosol Reactor for H₂O and CO₂ Splitting. Industrial & Engineering Chemistry Research, 2014, 53, 2175-2182.	3.7	75

#	Article	IF	Citations
19	Experimental Demonstration of the Thermochemical Reduction of Ceria in a Solar Aerosol Reactor. Industrial & Engineering Chemistry Research, 2016, 55, 10618-10625.	3.7	41
20	Theoretical and Experimental Investigation of Solar Methane Reforming through the Nonstoichiometric Ceria Redox Cycle. Energy Technology, 2017, 5, 2138-2149.	3.8	41
21	Morphological Characterization and Effective Thermal Conductivity of Dual-Scale Reticulated Porous Structures. Materials, 2014, 7, 7173-7195.	2.9	38
22	Combined Ceria Reduction and Methane Reforming in a Solar-Driven Particle-Transport Reactor. Industrial & Engineering Chemistry Research, 2017, 56, 10300-10308.	3.7	38
23	CO₂ Capture Using Aqueous Potassium Carbonate Promoted by Ethylaminoethanol: A Kinetic Study. Industrial & Engineering Chemistry Research, 2016, 55, 5238-5246.	3.7	32
24	Beyond Ceria: Theoretical Investigation of Isothermal and Near-Isothermal Redox Cycling of Perovskites for Solar Thermochemical Fuel Production. Energy & Fuels, 2019, 33, 12871-12884.	5.1	32
25	Solar Reactor Demonstration of Efficient and Selective Syngas Production via Chemicalâ€Looping Dry Reforming of Methane over Ceria. Energy Technology, 2020, 8, 2000053.	3.8	28
26	Kinetic insights into the reduction of ceria facilitated via the partial oxidation of methane. Materials Today Energy, 2018, 9, 39-48.	4.7	25
27	Role of Surface Oxygen Vacancy Concentration on the Dissociation of Methane over Nonstoichiometric Ceria. Journal of Physical Chemistry C, 2019, 123, 13208-13218.	3.1	25
28	Experimental Framework for Evaluation of the Thermodynamic and Kinetic Parameters of Metal-Oxides for Solar Thermochemical Fuel Production. Journal of Solar Energy Engineering, Transactions of the ASME, 2019, 141, .	1.8	11
29	Improved Performance and Efficiency of Lanthanumâ€“Strontiumâ€“Manganese Perovskites Undergoing Isothermal Redox Cycling under Controlled pH2O/pH2. Energy & Fuels, 2020, 34, 16918-16926.	5.1	10
30	Oxygen Nonstoichiometry and Defect Equilibria of Yttrium Manganite Perovskites with Strontium A-Site and Aluminum B-Site Doping. Journal of Physical Chemistry C, 2020, 124, 4448-4458.	3.1	7
31	Characterization of Zrâ€Doped Ceria and Srâ€Doped Laâ€™Mn Perovskites as Redox Intermediates for Solar Chemicalâ€Looping Reforming of Methane. Energy Technology, 2022, 10, 2100473.	3.8	5
32	Solar Hydrogen Production. Energy Technology, 2022, 10, .	3.8	4
33	Facile CO₂ separation and subsequent H₂ production via chemical-looping combustion over ceriaâ€“zirconia solid solutions. Physical Chemistry Chemical Physics, 2020, 22, 8545-8556.	2.8	3
34	Response to Rebuttal to â€œTheoretical and Experimental Investigation of Solar Methane Reforming through the Nonstoichiometric Ceria Redox Cycleâ€. Energy Technology, 2017, 5, 2153-2155.	3.8	1
35	A Laser-Based Heating System for Studying the Morphological Stability of Porous Ceria and Porous La0.6Sr0.4MnO3 Perovskite during Solar Thermochemical Redox Cycling. Energies, 2020, 13, 5935.	3.1	1