Aldo Steinfeld

List of Publications by Citations

434 papers	21,252 citations	76 h-index	125 g-index
483 ext. papers	23,891 ext. citations	5.8 avg, IF	7.42 L-index

#	Paper	IF	Citations
434	High-flux solar-driven thermochemical dissociation of CO2 and H2O using nonstoichiometric ceria. *Science*, **2010**, 330, 1797-801	33.3	1080
433	Solar thermochemical production of hydrogen□ review. *Solar Energy*, **2005**, 78, 603-615	6.8	966
432	Solar hydrogen production via a two-step water-splitting thermochemical cycle based on Zn/ZnO redox reactions. *International Journal of Hydrogen Energy*, **2002**, 27, 611-619	6.7	536
431	Concentrating solar thermal power and thermochemical fuels. *Energy and Environmental Science*, **2012**, 5, 9234	35.4	467
430	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	35.4	348
429	Amine-based nanofibrillated cellulose as adsorbent for CO□capture from air. *Environmental Science & Technology*, **2011**, 45, 9101-8	10.3	303
428	Solar Thermochemical CO2 Splitting Utilizing a Reticulated Porous Ceria Redox System. *Energy & Fuels*, **2012**, 26, 7051-7059	4.1	285
427	Oxygen exchange materials for solar thermochemical splitting of H2O and CO2: a review. *Materials Today*, **2014**, 17, 341-348	21.8	257
426	Lanthanum□trontium□Manganese Perovskites as Redox Materials for Solar Thermochemical Splitting of H2O and CO2. *Energy & Fuels*, **2013**, 27, 4250-4257	4.1	255
425	Solar thermochemical splitting of CO2 into separate streams of CO and O2 with high selectivity, stability, conversion, and efficiency. *Energy and Environmental Science*, **2017**, 10, 1142-1149	35.4	245
424	High-temperature thermal storage using a packed bed of rocks □Heat transfer analysis and experimental validation. *Applied Thermal Engineering*, **2011**, 31, 1798-1806	5.8	238
423	Packed-bed thermal storage for concentrated solar power □Pilot-scale demonstration and industrial-scale design. *Solar Energy*, **2012**, 86, 3084-3098	6.8	230
422	Optimum aperture size and operating temperature of a solar cavity-receiver. *Solar Energy*, **1993**, 50, 19-25	6.8	191
421	Solar-processed metals as clean energy carriers and water-splitters. *International Journal of Hydrogen Energy*, **1998**, 23, 767-774	6.7	185
420	Production of solar hydrogen by a novel, 2-step, water-splitting thermochemical cycle. *Energy*, **1995**, 20, 325-330	7.9	185
419	Thermodynamic Analysis of Cerium-Based Oxides for Solar Thermochemical Fuel Production. *Energy & Fuels*, **2012**, 26, 1928-1936	4.1	179
418	DESIGN ASPECTS OF SOLAR THERMOCHEMICAL ENGINEERING□A CASE STUDY: TWO-STEP WATER-SPLITTING CYCLE USING THE Fe3O4/FeO REDOX SYSTEM. *Solar Energy*, **1999**, 65, 43-53	6.8	177

417	Review: Photochemical and Thermochemical Production of Solar Fuels from H2O and CO2 Using Metal Oxide Catalysts. *Industrial & Engineering Chemistry Research*, **2012**, 51, 11828-11840	3.9	173
416	A Novel 50kW 11,000 suns High-Flux Solar Simulator Based on an Array of Xenon Arc Lamps. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2007**, 129, 405-411	2.3	164
415	Solar-driven gasification of carbonaceous feedstock— review. *Energy and Environmental Science*, **2011**, 4, 73-82	35.4	162
414	Tomography-based Monte Carlo determination of radiative properties of reticulate porous ceramics. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2007**, 105, 180-197	2.1	161
413	A solar chemical reactor for co-production of zinc and synthesis gas. *Energy*, **1998**, 23, 803-814	7.9	156
412	CO2 capture from atmospheric air via consecutive CaO-carbonation and CaCO3-calcination cycles in a fluidized-bed solar reactor. *Chemical Engineering Journal*, **2009**, 146, 244-248	14.7	155
411	Solar hydrogen production by thermal decomposition of natural gas using a vortex-flow reactor. *International Journal of Hydrogen Energy*, **2004**, 29, 47-55	6.7	152
410	Separation of CO2 from air by temperature-vacuum swing adsorption using diamine-functionalized silica gel. *Energy and Environmental Science*, **2011**, 4, 3584	35.4	147
409	Hydrogen production by steam-gasification of petroleum coke using concentrated solar power— Reactor design, testing, and modeling. *International Journal of Hydrogen Energy*, **2006**, 31, 797-811	6.7	147
408	The production of Zn from ZnO in a high-temperature solar decomposition quench process— The scientific framework for the process. *Chemical Engineering Science*, **1998**, 53, 2503-2517	4.4	144
407	The production of zinc by thermal dissociation of zinc oxide—Solar chemical reactor design. *Solar Energy*, **1999**, 67, 161-167	6.8	144
406	Kinetic analysis of the carbonation reactions for the capture of CO2 from air via the Ca(OH)2—CaCO3—CaO solar thermochemical cycle. *Chemical Engineering Journal*, **2007**, 129, 75-83	14.7	141
405	Thermochemical CO2 splitting via redox cycling of ceria reticulated foam structures with dual-scale porosities. *Physical Chemistry Chemical Physics*, **2014**, 16, 10503-11	3.6	136
404	Review of the Two-Step H—O/CO—Splitting Solar Thermochemical Cycle Based on Zn/ZnO Redox Reactions. *Materials*, **2010**, 3, 4922-4938	3.5	135
403	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	3.8	134
402	In situ formation and hydrolysis of Zn nanoparticles for H2 production by the 2-step ZnO/Zn water-splitting thermochemical cycle. *International Journal of Hydrogen Energy*, **2006**, 31, 55-61	6.7	134
401	Demonstration of the Entire Production Chain to Renewable Kerosene via Solar Thermochemical Splitting of H2O and CO2. *Energy & Fuels*, **2015**, 29, 3241-3250	4.1	130
400	Tomography based determination of permeability, Dupuit—Forchheimer coefficient, and interfacial heat transfer coefficient in reticulate porous ceramics. *International Journal of Heat and Fluid Flow*, **2008**, 29, 315-326	2.4	129

399	CO2 Splitting via Two-Step Solar Thermochemical Cycles with Zn/ZnO and FeO/Fe3O4 Redox Reactions: Thermodynamic Analysis. *Energy & Fuels*, **2008**, 22, 3544-3550	4.1	128
398	High-temperature solar thermochemistry: Production of iron and synthesis gas by Fe3O4-reduction with methane. *Energy*, **1993**, 18, 239-249	7.9	127
397	A Receiver-Reactor for the Solar Thermal Dissociation of Zinc Oxide. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2008**, 130,	2.3	114
396	Experimental investigation of a packed-bed solar reactor for the steam-gasification of carbonaceous feedstocks. *Fuel Processing Technology*, **2009**, 90, 360-366	7.2	113
395	Solar thermal production of zinc and syngas via combined ZnO-reduction and CH4-reforming processes. *International Journal of Hydrogen Energy*, **1995**, 20, 793-804	6.7	113
394	Design of packed bed thermal energy storage systems for high-temperature industrial process heat. *Applied Energy*, **2015**, 137, 812-822	10.7	106
393	Tomography-Based Heat and Mass Transfer Characterization of Reticulate Porous Ceramics for High-Temperature Processing. *Journal of Heat Transfer*, **2010**, 132,	1.8	103
392	Solar thermal cracking of methane in a particle-flow reactor for the co-production of hydrogen and carbon. *International Journal of Hydrogen Energy*, **2009**, 34, 7676-7685	6.7	102
391	The solar thermal gasification of coal □energy conversion efficiency and CO2 mitigation potential. *Energy*, **2003**, 28, 441-456	7.9	101
390	Fast and reversible direct CO2 capture from air onto all-polymer nanofibrillated cellulose-polyethylenimine foams. *Environmental Science & Technology*, **2015**, 49, 3167-74	10.3	100
389	Concurrent separation of CO2 and H2O from air by a temperature-vacuum swing adsorption/desorption cycle. *Environmental Science & Technology*, **2012**, 46, 9191-8	10.3	100
388	Thermogravimetric analysis of the ZnO/Zn water splitting cycle. *Thermochimica Acta*, **2000**, 359, 69-75	2.9	98
387	Oxygen nonstoichiometry, defect equilibria, and thermodynamic characterization of LaMnO3 perovskites with Ca/Sr A-site and Al B-site doping. *Acta Materialia*, **2016**, 103, 700-710	8.4	97
386	CO2 capture from air and co-production of H2 via the Ca(OH)2□CaCO3 cycle using concentrated solar power□hermodynamic analysis. *Energy*, **2006**, 31, 1715-1725	7.9	96
385	Lanthanum Manganite Perovskites with Ca/Sr A-site and Al B-site Doping as Effective Oxygen Exchange Materials for Solar Thermochemical Fuel Production. *Energy Technology*, **2015**, 3, 1130-1142	3.5	95
384	DIRECT SOLAR THERMAL DISSOCIATION OF ZINC OXIDE: CONDENSATION AND CRYSTALLISATION OF ZINC IN THE PRESENCE OF OXYGEN. *Solar Energy*, **1999**, 65, 59-69	6.8	95
383	Solar Syngas Production via H2O/CO2-Splitting Thermochemical Cycles with Zn/ZnO and FeO/Fe3O4 Redox Reactions□*Chemistry of Materials*, **2010**, 22, 851-859	9.6	93
382	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	3.8	92

381	Heliostat field layout optimization for high-temperature solar thermochemical processing. *Solar Energy*, **2011**, 85, 334-343	6.8	92
380	Hydrogen production by steam-gasification of petroleum coke using concentrated solar power Thermodynamic and kinetic analyses. *International Journal of Hydrogen Energy*, **2005**, 30, 605-618	6.7	92
379	Metals, nitrides, and carbides via solar carbothermal reduction of metal oxides. *Energy*, **1995**, 20, 695-704	7.9	92
378	Single-component and binary CO2 and H2O adsorption of amine-functionalized cellulose. *Environmental Science & Technology*, **2014**, 48, 2497-504	10.3	91
377	Solar-driven biochar gasification in a particle-flow reactor. *Chemical Engineering and Processing: Process Intensification*, **2009**, 48, 1279-1287	3.7	91
376	Stabilization of the outflow temperature of a packed-bed thermal energy storage by combining rocks with phase change materials. *Applied Thermal Engineering*, **2014**, 70, 316-320	5.8	89
375	Solar syngas production from CO2 and H2O in a two-step thermochemical cycle via Zn/ZnO redox reactions: Thermodynamic cycle analysis. *International Journal of Hydrogen Energy*, **2011**, 36, 12141-12147	6.7	89
374	Heat transfer model of a solar receiver-reactor for the thermal dissociation of ZnO Experimental validation at 10kW and scale-up to 1MW. *Chemical Engineering Journal*, **2009**, 150, 502-508	14.7	89
373	CO2 Splitting via Two-Step Solar Thermochemical Cycles with Zn/ZnO and FeO/Fe3O4 Redox Reactions II: Kinetic Analysis. *Energy & Fuels*, **2009**, 23, 2832-2839	4.1	89
372	Oxygen nonstoichiometry and thermodynamic characterization of Zr doped ceria in the 1573-1773 K temperature range. *Physical Chemistry Chemical Physics*, **2015**, 17, 7813-22	3.6	87
371	Kinetics of CO Reduction over Nonstoichiometric Ceria. *Journal of Physical Chemistry C*, **2015**, 119, 16452-16461	4.8	87
370	A 300kW Solar Chemical Pilot Plant for the Carbothermic Production of Zinc. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2007**, 129, 190-196	2.3	86
369	Dry Reforming of Methane Using a Solar-Thermal Aerosol Flow Reactor. *Industrial & Engineering Chemistry Research*, **2004**, 43, 5489-5495	3.9	86
368	Physico-chemical changes in Ca, Sr and Al-doped La-Mn-O perovskites upon thermochemical splitting of CO2 via redox cycling. *Physical Chemistry Chemical Physics*, **2015**, 17, 6629-34	3.6	84
367	Experimental and numerical investigation of combined sensible latent heat for thermal energy storage at 575 C and above. *Solar Energy*, **2015**, 114, 77-90	6.8	84
366	Solar-Driven Coal Gasification in a Thermally Irradiated Packed-Bed Reactor. *Energy & Fuels*, **2008**, 22, 2043-2052	4.1	84
365	Carbothermal reduction of alumina: Thermochemical equilibrium calculations and experimental investigation. *Energy*, **2007**, 32, 2420-2427	7.9	83
364	A robotic walker that provides guidance		82

363	A New High-Flux Solar Furnace for High-Temperature Thermochemical Research. *Journal of Solar Energy Engineering, Transactions of the ASME*, **1999**, 121, 77-80	2.3	82
362	Stability of amine-functionalized cellulose during temperature-vacuum-swing cycling for CO2 capture from air. *Environmental Science & Technology*, **2013**, 47, 10063-70	10.3	81
361	A cavity-receiver containing a tubular absorber for high-temperature thermochemical processing using concentrated solar energy. *International Journal of Thermal Sciences*, **2008**, 47, 1496-1503	4.1	78
360	Economic evaluation of the industrial solar production of lime. *Energy Conversion and Management*, **2005**, 46, 905-926	10.6	78
359	Hydrogen production by steam-gasification of petroleum coke using concentrated solar power II. Reactor experimentation with slurry feeding. *International Journal of Hydrogen Energy*, **2007**, 32, 992-996	6.7	77
358	Potential improvements in the optical and thermal efficiencies of parabolic trough concentrators. *Solar Energy*, **2014**, 107, 398-414	6.8	75
357	Solar-Driven Thermochemical Splitting of CO and Separation of CO and O across a Ceria Redox Membrane Reactor. *Joule*, **2017**, 1, 146-154	27.8	75
356	A 1 kWe thermoelectric stack for geothermal power generation Modeling and geometrical optimization. *Applied Energy*, **2012**, 99, 379-385	10.7	74
355	Design Principles of Perovskites for Thermochemical Oxygen Separation. *ChemSusChem*, **2015**, 8, 1966-71	8.3	73
354	A New 75 kW High-Flux Solar Simulator for High-Temperature Thermal and Thermochemical Research. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2003**, 125, 117-120	2.3	73
353	Pilot-scale demonstration of advanced adiabatic compressed air energy storage, Part 1: Plant description and tests with sensible thermal-energy storage. *Journal of Energy Storage*, **2018**, 17, 129-139	7.8	72
352	Hydrogen production by steam-gasification of carbonaceous materials using concentrated solar energy V. Reactor modeling, optimization, and scale-up. *International Journal of Hydrogen Energy*, **2008**, 33, 5484-5492	6.7	72
351	The solar thermal decarbonization of natural gas. *International Journal of Hydrogen Energy*, **2001**, 26, 1023-1033	6.7	72
350	Ammonia Production via a Two-Step Al2O3/AlN Thermochemical Cycle. 1. Thermodynamic, Environmental, and Economic Analyses. *Industrial & Engineering Chemistry Research*, **2007**, 46, 2042-2046	3.8	68
349	Solar thermal hybrids for combustion power plant: A growing opportunity. *Progress in Energy and Combustion Science*, **2018**, 64, 4-28	33.6	67
348	Kinetic investigation of the thermal decomposition of CH4 by direct irradiation of a vortex-flow laden with carbon particles. *International Journal of Hydrogen Energy*, **2004**, 29, 627-633	6.7	67
347	Reflections on the design of solar thermal chemical reactors: thoughts in transformation. *Energy*, **2004**, 29, 727-744	7.9	67
346	Experimental Investigation of the Solar Carbothermic Reduction of ZnO Using a Two-cavity Solar Reactor. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2004**, 126, 633-637	2.3	66

345	Thermal Reduction of Ceria within an Aerosol Reactor for H2O and CO2 Splitting. *Industrial & Engineering Chemistry Research*, **2014**, 53, 2175-2182	3.9	65
344	Numerical and experimental study of gas–particle radiative heat exchange in a fluidized-bed reactor for steam-gasification of coal. *Chemical Engineering Science*, **2007**, 62, 599-607	4.4	65
343	Feasibility of Na-based thermochemical cycles for the capture of CO2 from air—thermodynamic and thermogravimetric analyses. *Chemical Engineering Journal*, **2008**, 140, 62-70	14.7	65
342	Experimental investigation of the thermal and mechanical stability of rocks for high-temperature thermal-energy storage. *Applied Energy*, **2017**, 203, 373-389	10.7	64
341	Analysis of industrial-scale high-temperature combined sensible/latent thermal energy storage. *Applied Thermal Engineering*, **2016**, 101, 657-668	5.8	64
340	Solar Carbothermal Reduction of ZnO: Shrinking Packed-Bed Reactor Modeling and Experimental Validation. *Industrial & Engineering Chemistry Research*, **2004**, 43, 7981-7988	3.9	63
339	Solar hydrogen production via a two-step thermochemical process based on MgO/Mg redox reactions—thermodynamic and kinetic analyses. *International Journal of Hydrogen Energy*, **2008**, 33, 2880-2890	6.7	62
338	Purification of metallurgical grade silicon by a solar process. *Solar Energy Materials and Solar Cells*, **2006**, 90, 2099-2106	6.4	62
337	Rational design of metal nitride redox materials for solar-driven ammonia synthesis. *Interface Focus* , **2015**, 5, 20140084	3.9	61
336	Kinetic investigation on steam gasification of charcoal under direct high-flux irradiation. *Chemical Engineering Science*, **2003**, 58, 5111-5119	4.4	61
335	Radiative transfer in a solar chemical reactor for the co-production of hydrogen and carbon by thermal decomposition of methane. *Chemical Engineering Science*, **2004**, 59, 5771-5778	4.4	60
334	Reticulated porous ceria undergoing thermochemical reduction with high-flux irradiation. *International Journal of Heat and Mass Transfer*, **2017**, 107, 439-449	4.9	59
333	Heat transfer and fluid flow analysis of a 4kW solar thermochemical reactor for ceria redox cycling. *Chemical Engineering Science*, **2015**, 137, 373-383	4.4	59
332	Production of filamentous carbon and hydrogen by solarthermal catalytic cracking of methane. *Chemical Engineering Science*, **1997**, 52, 3599-3603	4.4	59
331	Pore-level engineering of macroporous media for increased performance of solar-driven thermochemical fuel processing. *International Journal of Heat and Mass Transfer*, **2014**, 78, 688-698	4.9	58
330	Solar Syngas Production from H2O and CO2 via Two-Step Thermochemical Cycles Based on Zn/ZnO and FeO/Fe3O4 Redox Reactions: Kinetic Analysis. *Energy & Fuels*, **2010**, 24, 2716-2722	4.1	58
329	Kinetics of the thermal dissociation of ZnO exposed to concentrated solar irradiation using a solar-driven thermogravimeter in the 1800–2100 K range. *AICHE Journal*, **2009**, 55, 1497-1504	3.6	58
328	Thermodynamic analysis of the co-production of zinc and synthesis gas using solar process heat. *Energy*, **1996**, 21, 205-222	7.9	58

327	Three-Dimensional Optical and Thermal Numerical Model of Solar Tubular Receivers in Parabolic Trough Concentrators. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2012**, 134,	2.3	57
326	Review of Heat Transfer Research for Solar Thermochemical Applications. *Journal of Thermal Science and Engineering Applications*, **2013**, 5,	1.9	56
325	A novel beam-down, gravity-fed, solar thermochemical receiver/reactor for direct solid particle decomposition: Design, modeling, and experimentation. *International Journal of Hydrogen Energy*, **2012**, 37, 16871-16887	6.7	56
324	Hydrogen production via the solar thermal decarbonization of fossil fuels. *Solar Energy*, **2006**, 80, 1333-1337	3.8	56
323	Syngas Production by Thermochemical Gasification of Carbonaceous Waste Materials in a 150 kWth Packed-Bed Solar Reactor. *Energy & Fuels*, **2013**, 27, 4770-4776	4.1	55
322	Transient heat transfer in a directly-irradiated solar chemical reactor for the thermal dissociation of ZnO. *Applied Thermal Engineering*, **2008**, 28, 524-531	5.8	55
321	Steam-Gasification of Coal in a Fluidized-Bed/Packed-Bed Reactor Exposed to Concentrated Thermal RadiationModeling and Experimental Validation. *Industrial & Engineering Chemistry Research*, **2005**, 44, 3852-3861	3.9	55
320	CO2 Sequestration by Direct Gas−Solid Carbonation of Air Pollution Control (APC) Residues. *Energy & Fuels*, **2006**, 20, 1933-1940	4.1	55
319	Tomographic Characterization of a Semitransparent-Particle Packed Bed and Determination of its Thermal Radiative Properties. *Journal of Heat Transfer*, **2009**, 131,	1.8	53
318	H2O-splitting thermochemical cycle based on ZnO/Zn-redox: Quenching the effluents from the ZnO dissociation. *Chemical Engineering Science*, **2008**, 63, 217-227	4.4	53
317	Principles of doping ceria for the solar thermochemical redox splitting of H2O and CO2. *Journal of Materials Chemistry A*, **2017**, 5, 15578-15590	13	52
316	Development Steps for Parabolic Trough Solar Power Technologies With Maximum Impact on Cost Reduction. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2007**, 129, 371-377	2.3	52
315	Comparing the solar-to-fuel energy conversion efficiency of ceria and perovskite based thermochemical redox cycles for splitting H2O and CO2. *International Journal of Hydrogen Energy*, **2018**, 43, 18814-18831	6.7	52
314	Effective Heat and Mass Transport Properties of Anisotropic Porous Ceria for Solar Thermochemical Fuel Generation. *Materials*, **2012**, 5, 192-209	3.5	51
313	Heat and mass transfer of temperature−vacuum swing desorption for CO2 capture from air. *Chemical Engineering Journal*, **2016**, 283, 1329-1338	14.7	50
312	Heat Transfer Analysis of a Novel Pressurized Air Receiver for Concentrated Solar Power via Combined Cycles. *Journal of Thermal Science and Engineering Applications*, **2009**, 1,	1.9	50
311	Experimental and Numerical Analyses of a Pressurized Air Receiver for Solar-Driven Gas Turbines. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2012**, 134,	2.3	50
310	A pressurized high-flux solar reactor for the efficient thermochemical gasification of carbonaceous feedstock. *Fuel*, **2017**, 193, 432-443	7.1	49

309	Kinetics of Mn2O3/Mn3O4 and Mn3O4/MnO Redox Reactions Performed under Concentrated Thermal Radiative Flux. *Energy & Fuels*, **2013**, 27, 4884-4890	4.1	49
308	Pilot Scale Demonstration of a 100-kWth Solar Thermochemical Plant for the Thermal Dissociation of ZnO. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2014**, 136,	2.3	49
307	Tomography-Based Determination of the Effective Thermal Conductivity of Fluid-Saturated Reticulate Porous Ceramics. *Journal of Heat Transfer*, **2008**, 130,	1.8	49
306	Co-synthesis of H2 and ZnO by in-situ Zn aerosol formation and hydrolysis. *AICHE Journal*, **2006**, 52, 3297-3303	3.6	49
305	CO2 capture from air via CaO-carbonation using a solar-driven fluidized bed reactor: Effect of temperature and water vapor concentration. *Chemical Engineering Journal*, **2009**, 155, 867-873	14.7	47
304	Ammonia Production via a Two-Step Al2O3/AlN Thermochemical Cycle. 2. Kinetic Analysis. *Industrial & Engineering Chemistry Research*, **2007**, 46, 2047-2053	3.9	47
303	Modeling of a novel high-temperature solar chemical reactor. *Chemical Engineering Science*, **1996**, 51, 3181-3186	4.4	47
302	Solar gasification of carbonaceous waste feedstocks in a packed-bed reactor: Dynamic modeling and experimental validation. *AICHE Journal*, **2011**, 57, 3522-3533	3.6	46
301	Hydrolysis rate of submicron Zn particles for solar H2 synthesis. *International Journal of Hydrogen Energy*, **2009**, 34, 1166-1175	6.7	46
300	Tomography-Based Multiscale Analyses of the 3D Geometrical Morphology of Reticulated Porous Ceramics. *Journal of the American Ceramic Society*, **2008**, 91, 2659-2665	3.8	46
299	Experimental Investigation of a Vortex-Flow Solar Chemical Reactor for the Combined ZnO-Reduction and CH4-Reforming*. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2001**, 123, 237-243	2.3	46
298	Theoretical and experimental investigation of the carbothermic reduction of Fe2O3 using solar energy. *Energy*, **1991**, 16, 1011-1019	7.9	46
297	H2 production by steam-quenching of Zn vapor in a hot-wall aerosol flow reactor. *Chemical Engineering Science*, **2009**, 64, 1095-1101	4.4	45
296	Experimental Investigation of an Atmospheric-Open Cyclone Solar Reactor for Solid-Gas Thermochemical Reactions. *Journal of Solar Energy Engineering, Transactions of the ASME*, **1992**, 114, 171-174	2.3	45
295	Life cycle assessment of the conventional and solar thermal production of zinc and synthesis gas. *Energy*, **2000**, 25, 395-409	7.9	44
294	The effect of the gas–solid contacting pattern in a high-temperature thermochemical energy storage on the performance of a concentrated solar power plant. *Energy and Environmental Science*, **2016**, 9, 1375-1389	35.4	43
293	Vacuum Carbothermic Reduction of Al2O3, BeO, MgO-CaO, TiO2, ZrO2, HfO2 + ZrO2, SiO2, SiO2 + Fe2O3, and GeO2 to the Metals. A Thermodynamic Study. *Mineral Processing and Extractive Metallurgy Review*, **2011**, 32, 247-266	3.1	43
292	Fuel saving, carbon dioxide emission avoidance, and syngas production by tri-reforming of flue gases from coal- and gas-fired power stations, and by the carbothermic reduction of iron oxide. *Energy*, **2006**, 31, 3171-3185	7.9	43

291	H2 production by Zn hydrolysis in a hot-wall aerosol reactor. *AICHE Journal*, **2005**, 51, 1966-1970	3.6	43
290	Tunable thermodynamic activity of La Sr Mn Al O (0 □1, 0 □1) perovskites for solar thermochemical fuel synthesis. *Journal of Materials Chemistry A*, **2017**, 5, 4172-4182	13	42
289	Carbon Dioxide Reforming of Methane using an Isothermal Redox Membrane Reactor. *Energy Technology*, **2015**, 3, 784-789	3.5	42
288	Performance of compound parabolic concentrators with polygonal apertures. *Solar Energy*, **2013**, 95, 308-318	6.8	42
287	Solar Aluminum Production by Vacuum Carbothermal Reduction of Alumina□Thermodynamic and Experimental Analyses. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2011**, 42, 254-260	2.5	42
286	Non-catalytic autothermal gasification of woody biomass. *International Journal of Hydrogen Energy*, **2011**, 36, 7852-7860	6.7	42
285	Kinetic Modeling for the Combined Pyrolysis and Steam Gasification of Petroleum Coke and Experimental Determination of the Rate Constants by Dynamic Thermogravimetry in the 500□1520 K Range. *Energy & Fuels*, **2006**, 20, 1250-1258	4.1	42
284	A two-zone solar-driven gasifier concept: Reactor design and experimental evaluation with bagasse particles. *Fuel*, **2014**, 117, 680-687	7.1	41
283	Heat and mass transfer analysis of a suspension of reacting particles subjected to concentrated solar radiation □Application to the steam-gasification of carbonaceous materials. *International Journal of Heat and Mass Transfer*, **2009**, 52, 385-395	4.9	41
282	Heterogeneous thermochemical decomposition under direct irradiation. *International Journal of Heat and Mass Transfer*, **2004**, 47, 1907-1916	4.9	41
281	CO2 splitting in an aerosol flow reactor via the two-step Zn/ZnO solar thermochemical cycle. *Chemical Engineering Science*, **2010**, 65, 1855-1864	4.4	40
280	A quenching apparatus for the gaseous products of the solar thermal dissociation of ZnO. *Journal of Materials Science*, **2008**, 43, 4729-4736	4.3	40
279	A two-phase reactor model for the steam-gasification of carbonaceous materials under concentrated thermal radiation. *Chemical Engineering and Processing: Process Intensification*, **2008**, 47, 655-662	3.7	40
278	An air-based corrugated cavity-receiver for solar parabolic trough concentrators. *Applied Energy*, **2015**, 138, 337-345	10.7	38
277	Pilot-scale demonstration of advanced adiabatic compressed air energy storage, Part 2: Tests with combined sensible/latent thermal-energy storage. *Journal of Energy Storage*, **2018**, 17, 140-152	7.8	38
276	High Temperature Rock-bed TES System Suitable for Industrial-scale CSP Plant □CFD Analysis Under Charge/Discharge Cyclic Conditions. *Energy Procedia*, **2014**, 46, 124-133	2.3	38
275	Design Principles for Metal Oxide Redox Materials for Solar-Driven Isothermal Fuel Production. *Advanced Energy Materials*, **2015**, 5, 1401082	21.8	38
274	Thermochemical production of fuels with concentrated solar energy. *Optics Express*, **2010**, 18 Suppl 1, A100-11	3.3	38

273	High-temperature solar thermochemistry for CO2 mitigation in the extractive metallurgical industry. *Energy*, **1997**, 22, 311-316	7.9	38
272	Magnesium Production by the Pidgeon Process Involving Dolomite Calcination and MgO Silicothermic Reduction: Thermodynamic and Environmental Analyses. *Industrial & Engineering Chemistry Research*, **2008**, 47, 2146-2154	3.9	38
271	Optical design and experimental characterization of a solar concentrating dish system for fuel production via thermochemical redox cycles. *Solar Energy*, **2018**, 170, 568-575	6.8	37
270	Micro-computed tomography based computational fluid dynamics for the determination of shear stresses in scaffolds within a perfusion bioreactor. *Annals of Biomedical Engineering*, **2014**, 42, 1085-94	4.7	37
269	Solar-driven steam-based gasification of sugarcane bagasse in a combined drop-tube and fixed-bed reactor Thermodynamic, kinetic, and experimental analyses. *Biomass and Bioenergy*, **2013**, 52, 173-183	5.3	37
268	Dynamics and control of solar thermochemical reactors. *Chemical Engineering Journal*, **2009**, 145, 362-370	4.7	37
267	Band-approximated radiative heat transfer analysis of a solar chemical reactor for the thermal dissociation of zinc oxide. *Solar Energy*, **2007**, 81, 1285-1294	6.8	37
266	Dynamics of a solar thermochemical reactor for steam-reforming of methane. *Chemical Engineering Science*, **2007**, 62, 4214-4228	4.4	37
265	Thermoneutral tri-reforming of flue gases from coal- and gas-fired power stations. *Catalysis Today*, **2006**, 115, 170-178	5.3	37
264	Operational Performance of a 5-kW Solar Chemical Reactor for the Co-Production of Zinc and Syngas. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2003**, 125, 124-126	2.3	37
263	A solar cavity-receiver packed with an array of thermoelectric converter modules. *Solar Energy*, **2011**, 85, 1511-1518	6.8	36
262	A Pressurized Air Receiver for Solar-driven Gas Turbines. *Energy Procedia*, **2014**, 49, 498-503	2.3	35
261	Morphological Characterization and Effective Thermal Conductivity of Dual-Scale Reticulated Porous Structures. *Materials*, **2014**, 7, 7173-7195	3.5	35
260	Particle gas reacting flow under concentrated solar irradiation. *International Journal of Heat and Mass Transfer*, **2009**, 52, 4997-5004	4.9	35
259	Final results of a phase II chemoradiation protocol for locally advanced cervical cancer: RTOG 85-15. *Gynecologic Oncology*, **1996**, 61, 221-6	4.9	35
258	Thermogravimetric Pyrolysis and Gasification of Lignocellulosic Biomass and Kinetic Summative Law for Parallel Reactions with Cellulose, Xylan, and Lignin. *Energy & Fuels*, **2012**, 26, 357-364	4.1	34
257	Thermoelectric Oxide Modules (TOMs) for the Direct Conversion of Simulated Solar Radiation into Electrical Energy. *Materials*, **2010**, 3, 2801-2814	3.5	34
256	Hydrogen production by steam-gasification of carbonaceous materials using concentrated solar energy IV. Reactor experimentation with vacuum residue. *International Journal of Hydrogen Energy*, **2008**, 33, 679-684	6.7	34

255	Towards a Commercial Parabolic Trough CSP System Using Air as Heat Transfer Fluid. *Energy Procedia*, **2014**, 49, 381-385	2.3	33
254	Economic evaluation of the solar thermalco-production of zinc and synthesis gas. *Energy Conversion and Management*, **1998**, 39, 1513-1518	10.6	33
253	Towards the Industrial Solar Carbothermal Production of Zinc. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2008**, 130,	2.3	33
252	Solar Fuels and Materials **2004**, 623-637		33
251	Radiotherapeutic prophylaxis of estrogen-induced gynecomastia: a study of late sequela. *International Journal of Radiation Oncology Biology Physics*, **1986**, 12, 407-8	4	33
250	Tomography-based determination of permeability and Dupuit□Forchheimer coefficient of characteristic snow samples. *Journal of Glaciology*, **2011**, 57, 811-816	3.4	32
249	Solar Thermochemical Production of Fuels. *Advances in Science and Technology*, **2010**, 74, 303-312	0.1	32
248	An ablation model for the thermal decomposition of porous zinc oxide layer heated by concentrated solar radiation. *International Journal of Heat and Mass Transfer*, **2009**, 52, 2444-2452	4.9	32
247	Unsteady radiative heat transfer within a suspension of ZnO particles undergoing thermal dissociation. *Chemical Engineering Science*, **2006**, 61, 7029-7035	4.4	32
246	Solar Thermochemical Process Technology **2003**, 237-256		32
245	Transient radiative heat transfer within a suspension of coal particles undergoing steam gasification. *Heat and Mass Transfer*, **2005**, 41, 1021-1032	2.2	32
244	Solar combined thermochemical processes for CO2 mitigation in the iron, cement, and syngas industries. *Energy*, **1994**, 19, 1077-1081	7.9	32
243	Experimental Demonstration of the Thermochemical Reduction of Ceria in a Solar Aerosol Reactor. *Industrial & Engineering Chemistry Research*, **2016**, 55, 10618-10625	3.9	32
242	Modular Design and Experimental Testing of a 50 kWth Pressurized-Air Solar Receiver for Gas Turbines. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2015**, 137,	2.3	31
241	Ablative heat transfer in a shrinking packed-bed of ZnO undergoing solar thermal dissociation. *AICHE Journal*, **2009**, 55, 1659-1666	3.6	31
240	Hydrogen production and CO2 fixation by flue-gas treatment using methane tri-reforming or coke/coal gasification combined with lime carbonation. *International Journal of Hydrogen Energy*, **2009**, 34, 8061-8066	6.7	31
239	A Modular Ceramic Cavity-Receiver for High-Temperature High-Concentration Solar Applications. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2012**, 134,	2.3	31
238	Hydrogen production by hydrogen sulfide splitting using concentrated solar energy □ Thermodynamics and economic evaluation. *Energy Conversion and Management*, **2010**, 51, 2353-2361	10.6	31

237	Reaction kinetics of the combined pyrolysis and steam-gasification of carbonaceous waste materials. *Fuel*, **2010**, 89, 1133-1140	7.1	31
236	Recycling of hazardous solid waste material using high-temperature solar process heat. 2. Reactor design and experimentation. *Environmental Science & Technology*, **2003**, 37, 165-70	10.3	31
235	Solar Thermal Reduction of ZnO Using CH4:ZnO and C:ZnO Molar Ratios Less Than 1. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2002**, 124, 55-62	2.3	31
234	Design of a 10 MW Particle-Flow Reactor for Syngas Production by Steam-Gasification of Carbonaceous Feedstock Using Concentrated Solar Energy. *Energy & Fuels*, **2010**, 24, 6540-6547	4.1	30
233	The coal/Fe3O4 system for mixing of solar and fossil energies. *Energy*, **1997**, 22, 337-342	7.9	30
232	Ammonia Production via a Two-Step Al2O3/AlN Thermochemical Cycle. 3. Influence of the Carbon Reducing Agent and Cyclability. *Industrial & Engineering Chemistry Research*, **2008**, 47, 2231-2237	3.9	30
231	Thermoanalysis of the combined Fe3O4-reduction and CH4-reforming processes. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **1995**, 26, 509-515	2.5	30
230	Experimental Investigation of the Carbothermal Reduction of ZnO Using a Beam-Down, Gravity-Fed Solar Reactor. *Industrial & Engineering Chemistry Research*, **2015**, 54, 8319-8332	3.9	29
229	Constrained multi-objective optimization of thermocline packed-bed thermal-energy storage. *Applied Energy*, **2018**, 216, 694-708	10.7	29
228	Combined Ceria Reduction and Methane Reforming in a Solar-Driven Particle-Transport Reactor. *Industrial & Engineering Chemistry Research*, **2017**, 56, 10300-10308	3.9	29
227	Manganese oxide based thermochemical hydrogen production cycle. *International Journal of Hydrogen Energy*, **2011**, 36, 7028-7037	6.7	29
226	Solar thermal decomposition of hydrocarbons and carbon monoxide for the production of catalytic filamentous carbon. *Chemical Engineering Science*, **1999**, 54, 3341-3348	4.4	29
225	Nonisothermal Nongray Absorbing-Emitting-Scattering Suspension of Fe3O4 Particles Under Concentrated Solar Irradiation. *Journal of Heat Transfer*, **1995**, 117, 346-354	1.8	29
224	Sulphur based thermochemical cycles: Development and assessment of key components of the process. *International Journal of Hydrogen Energy*, **2013**, 38, 6197-6204	6.7	28
223	Thermodynamics of paired charge-compensating doped ceria with superior redox performance for solar thermochemical splitting of H2O and CO2. *Journal of Materials Chemistry A*, **2017**, 5, 19476-19484	13	28
222	Mechanism of Zn Particle Oxidation by HO and CO in the Presence of ZnO. *Chemistry of Materials*, **2014**, 26, 6486-6495	9.6	28
221	Production of Carbon from Carbon Dioxide with Iron Oxides and High-Temperature Solar Energy. *Industrial & Engineering Chemistry Research*, **1997**, 36, 645-648	3.9	28
220	Intracranial ependymoma in the adult patient: successful treatment with surgery and radiotherapy. *Journal of Neuro-Oncology*, **1998**, 37, 131-3	4.8	28

219	A solar dish concentrator based on ellipsoidal polyester membrane facets. *Solar Energy*, **2012**, 86, 40-47	6.8	27
218	Thermally Driven Copper Oxide Redox Cycle for the Separation of Oxygen from Gases. *Industrial & Engineering Chemistry Research*, **2012**, 51, 7013-7021	3.9	27
217	TRANSIENT RADIATION HEAT TRANSFER WITHIN A NONGRAY NONISOTHERMAL ABSORBING-EMITTING-SCATTERING SUSPENSION OF REACTING PARTICLES UNDERGOING SHRINKAGE. *Numerical Heat Transfer, Part B: Fundamentals*, **2005**, 47, 443-457	1.3	27
216	Interface lessons for fully and semi-autonomous mobile robots **2004**,		27
215	Experimental Investigations on the Crystallization of Zinc by Direct Irradiation of Zinc Oxide in a Solar Furnace. *Chemistry of Materials*, **2000**, 12, 2175-2181	9.6	27
214	Carcinomatous meningitis from transitional cell carcinoma of bladder. *Urology*, **1985**, 25, 520-1	1.6	27
213	High Redox Capacity of Al-Doped La Sr MnO Perovskites for Splitting CO and H O at Mn-Enriched Surfaces. *ChemSusChem*, **2017**, 10, 1517-1525	8.3	26
212	A novel ventilation strategy with CO2 capture device and energy saving in buildings. *Energy and Buildings*, **2015**, 87, 134-141	7	26
211	Syngas production from H2O and CO2 over Zn particles in a packed-bed reactor. *AICHE Journal*, **2012**, 58, 625-631	3.6	26
210	Vacuum Carbothermic Reduction of Alumina. *Mineral Processing and Extractive Metallurgy Review*, **2014**, 35, 126-135	3.1	26
209	An Air-Based Cavity-Receiver for Solar Trough Concentrators. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2010**, 132,	2.3	26
208	Coproduction of Syngas and Lime by Combined CaCO3-Calcination and CH4-Reforming Using a Particle-Flow Reactor Driven by Concentrated Solar Radiation. *Energy & Fuels*, **2009**, 23, 6207-6212	4.1	26
207	Derivation of the Angular Dispersion Error Distribution of Mirror Surfaces for Monte Carlo Ray-Tracing Applications. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2011**, 133,	2.3	26
206	Numerical Analysis of Heat Loss From a Parabolic Trough Absorber Tube With Active Vacuum System. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2011**, 133,	2.3	26
205	Heat Transfer and Geometrical Analysis of Thermoelectric Converters Driven by Concentrated Solar Radiation. *Materials*, **2010**, 3, 2735-2752	3.5	26
204	A diffusion-based approximate model for radiation heat transfer in a solar thermochemical reactor. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2007**, 103, 601-610	2.1	26
203	Coal Gasification Using the ZnO/Zn Redox System. *Energy & Fuels*, **1996**, 10, 225-228	4.1	26
202	Brain metastases from ovarian cancer. *Journal of Neuro-Oncology*, **1987**, 5, 211-5	4.8	26

201	Optical Design of a Novel Two-Stage Solar Trough Concentrator Based on Pneumatic Polymeric Structures. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2009**, 131,	2.3	25
200	A 9-m-Aperture Solar Parabolic Trough Concentrator Based on a Multilayer Polymer Mirror Membrane Mounted on a Concrete Structure. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2011**, 133,	2.3	25
199	A SIMULATION MODEL FOR SOLAR THIN-LAYER DRYING PROCESS. *Drying Technology*, **1986**, 4, 535-554	2.6	25
198	Spectral reflectance, transmittance, and angular scattering of materials for solar concentrators. *Solar Energy Materials and Solar Cells*, **2016**, 144, 509-522	6.4	24
197	Trends in the phase stability and thermochemical oxygen exchange of ceria doped with potentially tetravalent metals. *Journal of Materials Chemistry A*, **2017**, 5, 19901-19913	13	24
196	Modeling of a Multitube High-Temperature Solar Thermochemical Reactor for Hydrogen Production. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2009**, 131,	2.3	24
195	A numerical investigation of gas-particle suspensions as heat transfer media for high-temperature concentrated solar power. *International Journal of Heat and Mass Transfer*, **2015**, 90, 1056-1070	4.9	23
194	Design principles of perovskites for solar-driven thermochemical splitting of CO. *Journal of Materials Chemistry A*, **2017**, 5, 15105-15115	13	23
193	Production of Si by vacuum carbothermal reduction of SiO2 using concentrated solar energy. *Jom*, **2010**, 62, 49-54	2.1	23
192	Monte Carlo Radiative Transfer Modeling of a Solar Chemical Reactor for The Co-Production of Zinc and Syngas. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2005**, 127, 102-108	2.3	23
191	Upgrading sensible-heat storage with a thermochemical storage section operated at variable pressure: An effective way toward active control of the heat-transfer fluid outflow temperature. *Applied Energy*, **2017**, 196, 51-61	10.7	22
190	Fuels from water, CO2 and solar energy. *Science Bulletin*, **2017**, 62, 1099-1101	10.6	22
189	Determination of the macroscopic optical properties of snow based on exact morphology and direct pore-level heat transfer modeling. *Journal of Geophysical Research*, **2012**, 117, n/a-n/a		22
188	Experimental and Numerical Determination of Thermal Radiative Properties of ZnO Particulate Media. *Journal of Heat Transfer*, **2010**, 132,	1.8	22
187	Tomography-Based Analysis of Radiative Transfer in Reacting Packed Beds Undergoing a Solid-Gas Thermochemical Transformation. *Journal of Heat Transfer*, **2010**, 132,	1.8	22
186	Production of AlN by Carbothermal and Methanothermal Reduction of Al2O3 in a N2 Flow Using Concentrated Thermal Radiation. *Industrial & Engineering Chemistry Research*, **2009**, 48, 528-533	3.9	22
185	Heat transfer model and scale-up of an entrained-flow solar reactor for the thermal decomposition of methane. *International Journal of Hydrogen Energy*, **2010**, 35, 13232-13241	6.7	22
184	Multiple myeloma of an extremity: must the entire bone be treated?. *International Journal of Radiation Oncology Biology Physics*, **1998**, 40, 117-9	4	22

183	Pulsed Gas Feeding for Stoichiometric Operation of a Gas-Solid Vortex Flow Solar Chemical Reactor. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2001**, 123, 133-137	2.3	22
182	Indirectly Irradiated Solar Receiver-Reactors for High-Temperature Thermochemical Processes. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2003**, 125, 120-123	2.3	22
181	Computational screening of perovskite redox materials for solar thermochemical ammonia synthesis from N 2 and H 2 O. *Catalysis Today*, **2017**, 286, 124-130	5.3	21
180	Tomography-based determination of porosity, specific area and permeability of snow and comparison with measurements. *Cold Regions Science and Technology*, **2014**, 97, 33-40	3.8	21
179	The effect of dopants on the redox performance, microstructure and phase formation of ceria. *Journal of Power Sources*, **2015**, 300, 261-271	8.9	21
178	On the Effect of the Presence of Solid Diluents during Zn Oxidation by CO2. *Industrial & Engineering Chemistry Research*, **2013**, 52, 1859-1869	3.9	21
177	Tetrahedral mesh generation based on space indicator functions. *International Journal for Numerical Methods in Engineering*, **2013**, 93, 1040-1056	2.4	21
176	Design of a 100 MWhth Packed-bed Thermal Energy Storage. *Energy Procedia*, **2014**, 49, 1071-1077	2.3	20
175	A 6-focus high-concentration photovoltaic-thermal dish system. *Solar Energy*, **2017**, 155, 445-463	6.8	20
174	Spectroscopic Goniometry System for Determining Thermal Radiative Properties of Participating Media. *Experimental Heat Transfer*, **2011**, 24, 300-312	2.4	20
173	Temperature of a Quartz/Sapphire Window in a Solar Cavity-Receiver. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2011**, 133,	2.3	20
172	Drop-in Fuels from Sunlight and Air. *Nature*, **2021**,	50.4	20
171	Solar-driven alumina calcination for CO2 mitigation and improved product quality. *Green Chemistry*, **2017**, 19, 2992-3005	10	19
170	The effect of irradiance mismatch on a semi-dense array of triple-junction concentrator cells. *Solar Energy Materials and Solar Cells*, **2013**, 116, 238-251	6.4	19
169	Radiative Transfer Within a Cylindrical Cavity With Diffusely/Specularly Reflecting Inner Walls Containing an Array of Tubular Absorbers. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2008**, 130,	2.3	19
168	Recycling of Hazardous Solid Waste Material Using High-Temperature Solar Process Heat. 1. Thermodynamic Analysis. *Environmental Science & Technology*, **2000**, 34, 4177-4184	10.3	19
167	Mimicking tetravalent dopant behavior using paired charge compensating dopants to improve the redox performance of ceria for thermochemically splitting H2O and CO2. *Acta Materialia*, **2018**, 144, 728-737	8.4	18
166	Dynamic Modeling of a Solar Reactor for Zinc Oxide Thermal Dissociation and Experimental Validation Using IR Thermography. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2014**, 136,	2.3	17

165	Experimental Determination of the Extinction Coefficient for a Packed-Bed Particulate Medium. *Experimental Heat Transfer*, **2006**, 19, 69-79	2.4	17
164	Thermo-neutral production of metals and hydrogen or methanol by the combined reduction of the oxides of zinc or iron with partial oxidation of hydrocarbons. *Energy*, **2002**, 27, 1069-1084	7.9	17
163	Carcinoid of the cervix: natural history and implications for therapy. *Gynecologic Oncology*, **1988**, 30, 114-9	4.9	17
162	Renal angiosarcoma. *American Journal of Kidney Diseases*, **1986**, 8, 131-3	7.4	17
161	Solar-driven co-thermolysis of CO2 and H2O promoted by in situ oxygen removal across a non-stoichiometric ceria membrane. *Reaction Chemistry and Engineering*, **2019**, 4, 1431-1438	4.9	16
160	Experimental observation of transient <i></i>¹⁸O interaction between snow and advective airflow under various temperature gradient conditions. *Cryosphere*, **2017**, 11, 1733-1743	5.5	16
159	Transient discrete-granule packed-bed reactor model for thermochemical energy storage. *Chemical Engineering Science*, **2014**, 117, 465-478	4.4	16
158	On-sun optical characterization of a solar dish concentrator based on elliptical vacuum membrane facets. *Solar Energy*, **2017**, 153, 732-743	6.8	16
157	An array of coiled absorber tubes for solar trough concentrators operating with air at 600 °C and above. *Solar Energy*, **2015**, 111, 378-395	6.8	16
156	Experimental and Numerical Heat Transfer Analysis of an Air-Based Cavity-Receiver for Solar Trough Concentrators. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2012**, 134,	2.3	16
155	Apparent absorptance for diffusely and specularly reflecting spherical cavities. *International Journal of Heat and Mass Transfer*, **1991**, 34, 1895-1897	4.9	16
154	Heat Transfer Model of a 50 kW Solar Receiver–Reactor for Thermochemical Redox Cycling Using Cerium Dioxide. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2019**, 141,	2.3	16
153	Splitting CO with a ceria-based redox cycle in a solar-driven thermogravimetric analyzer. *AICHE Journal*, **2017**, 63, 1263-1271	3.6	15
152	Reactive stability of promising scalable doped ceria materials for thermochemical two-step CO2 dissociation. *Journal of Materials Chemistry A*, **2018**, 6, 5807-5816	13	15
151	Thermal Recycling of Waelz Oxide Using Concentrated Solar Energy. *Jom*, **2013**, 65, 1733-1743	2.1	15
150	Thermoelectric oxide modules tested in a solar cavity-receiver. *Journal of Materials Research*, **2011**, 26, 1975-1982	2.5	15
149	Demand-flow airway pressure release ventilation as a partial ventilatory support mode: comparison with synchronized intermittent mandatory ventilation and pressure support ventilation. *Critical Care Medicine*, **1994**, 22, 1431-7	1.4	15
148	Incidence of developmental handicaps among the offspring of men treated for testicular seminoma. *Journal of Developmental and Physical Disabilities*, **1987**, 10, 385-7		15

147	Co-production of syngas and potassium-based fertilizer by solar-driven thermochemical conversion of crop residues. *Fuel Processing Technology*, **2018**, 171, 89-99	7.2	15
146	Additive-Manufactured Ordered Porous Structures Made of Ceria for Concentrating Solar Applications. *Energy Technology*, **2019**, 7, 1900484	3.5	14
145	A 1.2 MWth solar parabolic trough system based on air as heat transfer fluid at 500 °C – Engineering design, modelling, construction, and testing. *Solar Energy*, **2016**, 139, 398-411	6.8	14
144	Thermochemical energy storage via isothermal carbonation-calcination cycles of MgO-stabilized SrO in the range of 1000–1100 °C. *Solar Energy*, **2019**, 188, 720-729	6.8	14
143	Two-stage solar concentrators based on parabolic troughs: asymmetric versus symmetric designs. *Applied Optics*, **2015**, 54, 9709-21	0.2	14
142	Surface Modification of Graphite Particles Coated by Atomic Layer Deposition and Advances in Ceramic Composites. *International Journal of Applied Ceramic Technology*, **2013**, 10, 257-265	2	14
141	Theory and design of line-to-point focus solar concentrators with tracking secondary optics. *Applied Optics*, **2013**, 52, 8586-616	1.7	14
140	Concentrated solar energy – the path for efficient thermal conversion to power and fuels. *Science Bulletin*, **2019**, 64, 485-486	10.6	13
139	Isothermal relaxation kinetics for the reduction and oxidation of SrFeO based perovskites. *Physical Chemistry Chemical Physics*, **2020**, 22, 2466-2474	3.6	13
138	Experimental Determination of the Radiative Properties of Particle Suspensions for High-Temperature Solar Receiver Applications. *Heat Transfer Engineering*, **2014**, 35, 272-280	1.7	13
137	Radiative Exchange Within a Two-Cavity Configuration With a Spectrally Selective Window. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2004**, 126, 819-822	2.3	13
136	Thermoneutral Coproduction of Calcium Oxide and Syngas by Combined Decomposition of Calcium Carbonate and Partial Oxidation/CO2-Reforming of Methane. *Energy & Fuels*, **2003**, 17, 774-778	4.1	13
135	Analysis of Conduction Heat Loss From a Parabolic Trough Solar Receiver with Active Vacuum by Direct Simulation Monte Carlo. *Numerical Heat Transfer; Part A: Applications*, **2012**, 62, 432-444	2.3	12
134	Tomography-Based Determination of Effective Transport Properties for Reacting Porous Media. *Journal of Heat Transfer*, **2012**, 134,	1.8	12
133	TRANSMITTANCE ENHANCEMENT OF PACKED-BED PARTICULATE MEDIA. *Experimental Heat Transfer*, **2008**, 21, 73-82	2.4	12
132	Production of lime, hydrogen, and methanol by the thermo-neutral combined calcination of limestone with partial oxidation of natural gas or coal. *Energy*, **2006**, 31, 1533-1541	7.9	12
131	Annular Compound Parabolic Concentrator. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2006**, 128, 121-124	2.3	12
130	Rear-End Collision Warning System: Design and Evaluation via Simulation. *Transportation Research Record*, **2001**, 1759, 52-60	1.7	12

129	Emergence of a Cognitive Car-Following Driver Model: Application to Rear-End Crashes with a Stopped Lead Vehicle. *Transportation Research Record*, **2000**, 1724, 29-38	1.7	12
128	Tomography-based monitoring of isothermal snow metamorphism under advective conditions. *Cryosphere*, **2015**, 9, 1363-1371	5.5	12
127	Experimental testing of a solar air cavity-receiver with reticulated porous ceramic absorbers for thermal processing at above 1000 ℃. *Solar Energy*, **2021**, 214, 72-85	6.8	12
126	Analysis of solar-driven gasification of biochar trickling through an interconnected porous structure. *AICHE Journal*, **2015**, 61, 867-879	3.6	11
125	Vacuum Carbothermic Reduction of Bauxite Components: A Thermodynamic Study. *Mineral Processing and Extractive Metallurgy Review*, **2012**, 33, 190-203	3.1	11
124	Coal gasification by the coal/CH4?ZnO?Zn?H2O solar energy conversion system. *Energy Conversion and Management*, **1996**, 37, 1315-1320	10.6	11
123	Coupled Concentrating Optics, Heat Transfer, and Thermochemical Modeling of a 100-kWth High-Temperature Solar Reactor for the Thermal Dissociation of ZnO. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2017**, 139,	2.3	10
122	Impact of Daily Startup□Shutdown Conditions on the Production of Solar Methanol over a Commercial Cu□ZnO□Al2O3 Catalyst. *Energy Technology*, **2016**, 4, 565-572	3.5	10
121	Optical and Thermal Analysis of a Pressurized-Air Receiver Cluster for a 50 MWe Solar Power Tower. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2015**, 137,	2.3	10
120	CH4-utilization and CO2-mitigation in the metallurgical industry via solar thermochemistry. *Energy Conversion and Management*, **1996**, 37, 1327-1332	10.6	10
119	THERMOCHEMICAL PRODUCTION OF SYNGAS USING CONCENTRATED SOLAR ENERGY. *Annual Review of Heat Transfer*, **2012**, 15, 255-275	2.7	10
118	Spectral hemispherical reflectivity of nonstoichiometric cerium dioxide. *Solar Energy Materials and Solar Cells*, **2017**, 159, 167-171	6.4	9
117	Combined Experimental-Numerical Approach to Determine Radiation Properties of Particle Suspensions. *Journal of Heat Transfer*, **2014**, 136,	1.8	9
116	Design Point for Predicting Year-Round Performance of Solar Parabolic Trough Concentrator Systems. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2014**, 136,	2.3	9
115	Carbothermic Reduction of Alumina by Natural Gas to Aluminum and Syngas: A Thermodynamic Study. *Mineral Processing and Extractive Metallurgy Review*, **2012**, 33, 352-361	3.1	9
114	CO2 reduction with Zn particles in a packed-bed reactor. *AICHE Journal*, **2011**, 57, 2529-2534	3.6	9
113	Gas temperature measurement in thermal radiating environments using a suction thermocouple apparatus. *Measurement Science and Technology*, **2007**, 18, 3329-3334	2	9
112	High-Temperature Thermochemical Heat Storage via the CuO/Cu2O Redox Cycle: From Material Synthesis to Packed-Bed Reactor Engineering and Cyclic Operation. *Energy & Fuels*, **2020**, 34, 16772-16782	4.1	9

111	Metamorphism during temperature gradient with undersaturated advective airflow in a snow sample. *Cryosphere*, **2016**, 10, 791-797	5.5	9
110	Integration of a Pressurized-Air Solar Receiver Array to a Gas Turbine Power Cycle for Solar Tower Applications. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2017**, 139,	2.3	8
109	Numerical Heat Transfer Analysis of a 50 kWth Pressurized-Air Solar Receiver. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2015**, 137,	2.3	8
108	Determination of thermal radiative properties of packed-bed media containing a mixture of polydispersed particles. *International Journal of Thermal Sciences*, **2009**, 48, 1510-1516	4.1	8
107	Development Steps for Concentrating Solar Power Technologies With Maximum Impact on Cost Reduction: Results of the European ECOSTAR Study **2005**, 773		8
106	Solar thermal production of zinc : Program strategy and status of research. *European Physical Journal Special Topics*, **1999**, 09, Pr3-313-Pr3-318		8
105	Exchange factor between two spheres placed at the foci of a specularly reflecting ellipsoidal cavity. *International Communications in Heat and Mass Transfer*, **1991**, 18, 19-26	5.8	8
104	High-purity nitrogen production from air by pressure swing adsorption combined with SrFeO3 redox chemical looping. *Chemical Engineering Journal*, **2021**, 421, 127734	14.7	8
103	Thermodynamic comparison of solar methane reforming via catalytic and redox cycle routes. *Solar Energy*, **2021**, 215, 169-178	6.8	8
102	High-concentration solar dishes based on pneumatic reflecting membranes. *Solar Energy*, **2016**, 124, 89-100	6.8	7
101	Spectral data of specular reflectance, narrow-angle transmittance and angle-resolved surface scattering of materials for solar concentrators. *Data in Brief*, **2016**, 6, 184-8	1.2	7
100	Liquid fuels from concentrated sunlight: An overview on development and integration of a 50 kW solar thermochemical reactor and high concentration solar field for the SUN-to-LIQUID project **2019**,		7
99	SECONDARY BATTERIES ZINC SYSTEMS | Zinc Electrodes: Solar Thermal Production **2009**, 469-486		7
98	Two-Dimensional Axi-Symmetric Model of a Solar-Thermal Fluid-Wall Aerosol Flow Reactor. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2005**, 127, 76-85	2.3	7
97	Cone Compared to CPC as Secondary Concentrator in Tandem With a Paraboloidal Dish Primary. *Journal of Solar Energy Engineering, Transactions of the ASME*, **1992**, 114, 201-202	2.3	7
96	Controversies in management of stages I and II testicular seminomas. *Urology*, **1988**, 31, 202-6	1.6	7
95	A child with 18q- syndrome and cerebellar astrocytoma. *Journal of Pediatrics*, **1983**, 103, 600-2	3.6	7
94	On the Development of a Zinc Vapor Condensation Process for the Solar Carbothermal Reduction of Zinc Oxide. *Jom*, **2015**, 67, 1096-1109	2.1	6

93	Nonparabolic solar concentrators matching the parabola. *Optics Letters*, **2014**, 39, 4301-4	3	6
92	Snowplow Steering Guidance with Gain Stabilization. *Vehicle System Dynamics*, **2001**, 36, 279-305	2.8	6
91	International R & D collaboration in developing solar thermal technologies for electric power and solar chemistry : The solarPACES program of the International Energy Agency (IEA). *European Physical Journal Special Topics*, **1999**, 09, Pr3-9-Pr3-15		6
90	A solar receiver-reactor with specularly reflecting walls for high-temperature thermoelectrochemical and thermochemical processes. *Energy*, **1988**, 13, 301-311	7.9	6
89	Production of catalytic filamentous carbon by solar thermal decomposition of hydrocarbons. *European Physical Journal Special Topics*, **1999**, 09, Pr3-393-Pr3-398		6
88	Performance Indicators for Benchmarking Solar Thermochemical Fuel Processes and Reactors. *Frontiers in Energy Research*, **2021**, 9,	3.8	6
87	Solar thermochemical reactor technology for splitting CO2 **2018**,		6
86	Optimal solar dish field layouts for maximum collection and shading efficiencies. *Solar Energy*, **2017** , 144, 286-294	6.8	5
85	Reforming of Blast Furnace Gas with Methane, Steam, and Lime for Syngas Production and CO2 Capture: A Thermodynamic Study. *Mineral Processing and Extractive Metallurgy Review*, **2015**, 36, 7-12	3.1	5
84	Investigation of Na2SO4 removal from a supercritical aqueous solution in a dip-tube salt separator. *Journal of Supercritical Fluids*, **2018**, 133, 146-155	4.2	5
83	Experimental demonstration of high-concentration photovoltaics on a parabolic trough using tracking secondary optics. *Progress in Photovoltaics: Research and Applications*, **2016**, 24, 1410-1426	6.8	5
82	Solar kerosene from H2O and CO2 **2017**,		5
81	Assessment of Heat Exchangers for the Integration of Concentrated Solar Energy into the Catalytic Hydrothermal Gasification of Biomass. *Energy Technology*, **2017**, 5, 2086-2099	3.5	5
80	Tomography-based characterization of ice-air interface dynamics of temperature gradient snow metamorphism under advective conditions. *Journal of Geophysical Research F: Earth Surface*, **2015**, 120, 2437-2451	3.8	5
79	Surpassing the 2D Limit: A 600x High-concentration PV Collector Based on a Parabolic trough with Tracking Secondary Optics. *Energy Procedia*, **2014**, 57, 285-290	2.3	5
78	A Solar Trough Concentrator for Pill-Box Flux Distribution Over a CPV Panel. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2010**, 132,	2.3	5
77	Tomography-Based Determination of Effective Transport Properties for Reacting Porous Media **2010**,		5
76	Development of the side component of the transit integrated collision warning system		5

75	Solar Production of Zinc from the Zinc Silicate Ore Willemite. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2001**, 123, 98-101	2.3	5
74	Solar energy absorption efficiency of an ellipsoidal receiver-reactor with specularly reflecting walls. *Energy*, **1988**, 13, 609-614	7.9	5
73	Leiomyosarcoma arising in an arteriovenous fistula. *Cancer*, **1983**, 52, 390-2	6.4	5
72	Synthesis and conformational analysis of cyclo-TRI[l-valyl-d-hexahydromandelyl]. *Bioorganic Chemistry*, **1974**, 3, 184-203	5.1	5
71	An instrumented sample holder for time-lapse microtomography measurements of snow under advective airflow. *Geoscientific Instrumentation, Methods and Data Systems*, **2014**, 3, 179-185	1.5	5
70	High redox performance of Y0.5Ba0.5CoO3 for thermochemical oxygen production and separation. *Reaction Chemistry and Engineering*, **2020**, 5, 685-695	4.9	5
69	Unsteady Radiative Heat Transfer Model of a Ceria Particle Suspension Undergoing Solar Thermochemical Reduction. *Journal of Thermophysics and Heat Transfer*, **2019**, 33, 63-77	1.3	5
68	Nonimaging polygonal mirrors achieving uniform irradiance distributions on concentrating photovoltaic cells. *Applied Optics*, **2017**, 56, 3035-3052	0.2	4
67	A 3 MWth parabolic trough CSP plant operating with air at up to 650 C **2014**,		4
66	Metal Oxide Reduction Using a Solar-Driven Vacuum Thermogravimeter **2013**,		4
65	CO2 Splitting via the Solar Thermochemical Cycle Based on Zn/ZnO Redox Reactions. *ACS Symposium Series*, **2010**, 25-30	0.4	4
64	Radiative transfer in a diffusely/specularly reflecting spherical cavity containing a gray medium. *Heat and Mass Transfer*, **1993**, 28, 65-68		4
63	Solar TE Converter Applications. *Springer Series in Materials Science*, **2013**, 365-382	0.9	4
62	Reticulated porous ceramic ceria structures with modified surface geometry for solar thermochemical splitting of water and carbon dioxide **2019**,		3
61	High-temperature thermocline TES combining sensible and latent heat - CFD modeling and experimental validation **2017**,		3
60	Experimental and Numerical Investigation of Combined Sensible/Latent Thermal Energy Storage for High-Temperature Applications. *Chimia*, **2015**, 69, 799-803	1.3	3
59	CRISPTower A Solar Power Tower R&D Initiative in India. *Energy Procedia*, **2014**, 57, 301-310	2.3	3
58	A 1 kWel thermoelectric stack for geothermal power generation - Modeling and geometrical optimization **2012**,		3

57	Combined Thermoneutral Processes for CO2 Emission Avoidance and Fuel Saving in the Metallurgical and Lime Industries. *Studies in Surface Science and Catalysis*, **2004**, 481-486	1.8	3
56	TRANSIENT RADIATIVE HEAT TRANSFER WITHIN A PARTICLE SUSPENSION UNDERGOING ENDOTHERMAL DECOMPOSITION - SHRINKING VS. NON-SHRINKING PARTICLES **2004**,		3
55	Solar-Driven Thermochemical Production of Sustainable Liquid Fuels from H2O and CO2 in a Heliostat Field **2019**,		3
54	Thermochemical Hydrogen Storage via the Reversible Reduction and Oxidation of Metal Oxides. *Energy & Fuels*,	4.1	3
53	Reversible Phase Transformations in Novel Ce-Substituted Perovskite Oxide Composites for Solar Thermochemical Redox Splitting of CO2. *Advanced Energy Materials*, **2021**, 11, 2003532	21.8	3
52	A co-located solar receiver and thermal storage concept using silicate glass at1000°Cand above: Experiments and modeling in the optically-thick regime. *Solar Energy*, **2019**, 177, 553-560	6.8	3
51	Exploiting kinetics to unravel the role of a ZnO diluent in the production of CO via oxidizing Zn particles with CO2. *Chemical Engineering Science*, **2017**, 165, 96-107	4.4	2
50	Principles of Sustainable Energy. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2012**, 134,	2.3	2
49	InPhoCUS (Inflated Photovoltaic Ultra-light Mirror Concentrators): First Results Of The Project And Future Perspectives **2011**,		2
48	Concentrated solar energy for thermochemically producing liquid fuels from CO2 and H2O. *Jom*, **2011**, 63, 32-34	2.1	2
47	Tomography-Based Heat and Mass Transfer Characterization of Reticulate Porous Ceramics for High-Temperature Processing **2009**,		2
46	Indoor characterization of the receiver for the novel InPhoCUS concrete tracker CPV system **2012**,		2
45	Multi-Scale Modelling of a Solar Reactor for the High-Temperature Step of a Sulphur-Iodine-Based Water Splitting Cycle **2012**,		2
44	Heat Transfer Analysis of a Novel Pressurized Air Receiver for Concentrated Solar Power Via Combined Cycles **2009**,		2
43	A Rotary Receiver-Reactor for the Solar Thermal Dissociation of Zinc Oxide **2007**,		2
42	A Novel High-Flux Solar Simulator Based on an Array of Xenon Arc Lamps: Optimization of the Ellipsoidal Reflector and Optical Configuration **2005**, 175		2
41	Hydrogen Production by Steam-Gasification of Petroleum Coke Using Concentrated Solar Power: Reactor Experimentation With Slurry Feeding **2006**, 23		2
40	Experimental Investigation of the Solar Carbothermic Reduction of ZnO Using a Two-Cavity Solar Reactor **2003**, 101		2

39	Special Issue on Wind Energy. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2005**, 127, 437-437	2.3	2
38	Experimental Setup of a Laser Diagnostics System for a High-Temperature Solar Receiver/Reactor. *Journal of Solar Energy Engineering, Transactions of the ASME*, **1994**, 116, 206-211	2.3	2
37	Solar Carbothermic Production of Zinc From Zinc Oxide: Solzinc **2005**,		2
36	A SPHERICAL RECEIVER-REACTOR WITH SPECULARLY REFLECTING INNER SURFACES FOR HIGH-TEMPERATURE SOLAR FURNACE APPLICATIONS **1990**,		2
35	SolarSyngas: Results from a virtual institute developing materials and key components for solar thermochemical fuel production **2016**,		2
34	Solar Trough Concentrator Design for Uniform Radiative Flux Distribution **2014**,		1
33	Brewing fuels in a solar furnace. *MRS Bulletin*, **2013**, 38, 208-209	3.2	1
32	One-Dimensional Heat and Mass Transfer and Discrete Granule Model of a Tubular Packed-Bed Reactor for Thermochemical Storage of Solar Energy **2013**,		1
31	Numerical Analysis of Heat Loss From a Parabolic Trough Absorber Tube With Active Vacuum System **2011**,		1
30	On Indirectly Irradiated Solar Receiver-Reactors for High-Temperature Thermochemical Processes **2002**, 251		1
29	Operational Performance of a 5 kW Solar Chemical Reactor for the Co-Production of Zinc and Syngas **2002**, 257		1
28	Chemische Brennstoffe aus Sonnenlicht. *MTZ - Motortechnische Zeitschrift*, **2001**, 62, 242-249	0.2	1
27	A Pressurized High-Flux Solar Reactor for the Thermochemical Gasification of Charcoal Slurry□wo-Phase Flow and Heat Transfer Analysis. *Journal of Heat Transfer*, **2019**, 142,	1.8	1
26	A High-Flux Solar Parabolic Dish System for Continuous Thermochemical Fuel Production **2017**,		1
25	Experimental Investigation of a Thermochemical Reactor for High-Temperature Heat Storage via Carbonation-Calcination Based Cycles. *Frontiers in Energy Research*, **2021**, 9,	3.8	1
24	Solar thermal chemical processing **1999**, 961-966		1
23	The Production of Zinc by Thermal Dissociation of Zinc Oxide□Solar Chemical Reactor Design **2000**, 539-543		1
22	Dual Hydrogen- and Oxygen-Transport Membrane Reactor for Solar-Driven Syngas Production. *Frontiers in Energy Research*, **2020**, 8,	3.8	1

21	A packed-bed solar reactor for the carbothermal zinc production dynamic modelling and experimental validation. *AICHE Journal*, **2016**, 62, 4586-4594	3.6	1
20	Vacuum Distillation of Aluminum and Silicon Via Carbothermal Reduction of Their Oxides with Concentrated Solar Energy175-181		1
19	Does the $ 20 Million Carbon XPRIZE Exclude Solar Technologies?. *Energy Technology*, **2017**, 5, 773-774	3.5	0
18	Solar Energy in Thermochemical Processing **2022**, 315-347		0
17	Investigations into Innovative and Sustainable Processes for the Carbothermic Production of Gaseous Aluminum **2014**, 771-776		
16	Materials and Processes for Renewable Energy Technologies. *Jom*, **2013**, 65, 1658-1659	2.1	
15	Production of (solar) H2 and ZnO Nanoparticles by Hydrolysis of Zn Aerosol Freshly Made by Evaporation and Condensation. *Chemie-Ingenieur-Technik*, **2006**, 78, 1334-1335	0.8	
14	Modeling of a Multi-Tube Solar Reactor for Hydrogen Production at High Temperatures **2007**, 903		
13	Radiative Transfer Within a Cylindrical Cavity With Diffusely/Specularly Reflecting Inner Walls Containing an Array of Tubular Absorbers **2006**, 15		
12	Hydrogen Production Via the Solar Thermal Decarbonization of Fossil Fuels **2003**, 107		
11	Monte Carlo Radiative Transfer Modeling of a Solar Chemical Reactor for the Co-Production of Zinc and Syngas **2004**, 547		
10	Two-Dimensional Axi-Symmetric Model of a Solar-Thermal Fluid-Wall Aerosol Flow Reactor **2004**, 477		
9	Non-stoichiometric Ferrites for Solar Energy Conversion into H2 Energy. *Journal of the Magnetics Society of Japan*, **1998**, 22, S1_417-418		
8	Thermochemical Solar/Fossil Energy Mixing Using Metal Oxides. *Journal of the Magnetics Society of Japan*, **1998**, 22, S1_411-412		
7	Design procedure for a greenhouse space heating system utilizing geothermal warm water. *Bioresource Technology*, **1987**, 6, 27-34		
6	Optical properties and scattering distribution of thermographic phosphors. *Optical Materials*, **2021**, 122, 111741	3.3	
5	The Solar Chemistry Program of the International Energy Agency's Implementing Agreement SolarPACES **2000**, 64-70		
4	CO2 abatement by producing new solar energy carriers-product formation in high temperature solar chemistry **1999**, 967-971		

3 Investigations into Innovative and Sustainable Processes for the Carbothermic Production of Gaseous Aluminum **2014**, 771-776

2 The ACR Practice Accreditation Program for radiation oncology. *Administrative Radiology: AR*, **1990**, 9, 27, 29-30, 32

1 Thermochemical production of fuels with concentrated solar energy. *Optics Express*, **2010**, 18, A100-11 3.3