Chr Sattler

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4461301/publications.pdf

Version: 2024-02-01

188	6,407	61857	74018
papers	citations	43 h-index	75 g-index

196	196	196	3587
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A review on solar thermal syngas production via redox pair-based water/carbon dioxide splitting thermochemical cycles. Renewable and Sustainable Energy Reviews, 2015, 42, 254-285.	8.2	316
2	Solar thermal reforming of methane feedstocks for hydrogen and syngas productionâ€"A review. Renewable and Sustainable Energy Reviews, 2014, 29, 656-682.	8.2	306
3	Solar water splitting for hydrogen production with monolithic reactors. Solar Energy, 2005, 79, 409-421.	2.9	242
4	Prospects of solar thermal hydrogen production processes. International Journal of Hydrogen Energy, 2009, 34, 4256-4267.	3.8	186
5	Solar-heated rotary kiln for thermochemical energy storage. Solar Energy, 2012, 86, 3040-3048.	2.9	165
6	Exploitation of thermochemical cycles based on solid oxide redox systems for thermochemical storage of solar heat. Part 1: Testing of cobalt oxide-based powders. Solar Energy, 2014, 102, 189-211.	2.9	147
7	Solar Hydrogen Production by a Two-Step Cycle Based on Mixed Iron Oxides. Journal of Solar Energy Engineering, Transactions of the ASME, 2006, 128, 125-133.	1.1	140
8	Test operation of a 100kW pilot plant for solar hydrogen production from water on a solar tower. Solar Energy, 2011, 85, 634-644.	2.9	138
9	Applications and limitations of two step metal oxide thermochemical redox cycles; a review. Journal of Materials Chemistry A, 2017, 5, 18951-18966.	5.2	133
10	Materials-Related Aspects of Thermochemical Water and Carbon Dioxide Splitting: A Review. Materials, 2012, 5, 2015-2054.	1.3	129
11	HYTHEC: An EC funded search for a long term massive hydrogen production route using solar and nuclear technologies. International Journal of Hydrogen Energy, 2007, 32, 1516-1529.	3.8	127
12	Compound parabolic concentrator technology development to commercial solar detoxification applications. Solar Energy, 1999, 67, 317-330.	2.9	122
13	Solar fuels production: Two-step thermochemical cycles with cerium-based oxides. Progress in Energy and Combustion Science, 2019, 75, 100785.	15.8	122
14	Materials design of perovskite solid solutions for thermochemical applications. Energy and Environmental Science, 2019, 12, 1369-1384.	15.6	122
15	Thermodynamics of CeO₂ Thermochemical Fuel Production. Energy & Fuels, 2015, 29, 1001-1009.	2.5	115
16	Perovskite oxides for application in thermochemical air separation and oxygen storage. Journal of Materials Chemistry A, 2016, 4, 13652-13659.	5.2	110
17	Economic comparison of solar hydrogen generation by means of thermochemical cycles and electrolysis. International Journal of Hydrogen Energy, 2008, 33, 4511-4519.	3.8	108
18	Thermochemical Solar Energy Storage Via Redox Oxides: Materials and Reactor/Heat Exchanger Concepts. Energy Procedia, 2014, 49, 1034-1043.	1.8	107

#	Article	IF	Citations
19	Destruction of the organic matter present in effluent from a cellulose and paper industry using photocatalysis. Journal of Photochemistry and Photobiology A: Chemistry, 2003, 155, 231-241.	2.0	104
20	Operational strategy of a two-step thermochemical process for solar hydrogen production. International Journal of Hydrogen Energy, 2009, 34, 4537-4545.	3.8	94
21	Exploitation of thermochemical cycles based on solid oxide redox systems for thermochemical storage of solar heat. Part 2: Redox oxide-coated porous ceramic structures as integrated thermochemical reactors/heat exchangers. Solar Energy, 2015, 114, 440-458.	2.9	94
22	Experimental evaluation of a pilot-scale thermochemical storage system for a concentrated solar power plant. Applied Energy, 2017, 189, 66-75.	5.1	92
23	Exploitation of thermochemical cycles based on solid oxide redox systems for thermochemical storage of solar heat. Part 3: Cobalt oxide monolithic porous structures as integrated thermochemical reactors/heat exchangers. Solar Energy, 2015, 114, 459-475.	2.9	88
24	Hydrogen Production by Solar Reforming of Natural Gas: A Comparison Study of Two Possible Process Configurations. Journal of Solar Energy Engineering, Transactions of the ASME, 2006, 128, 16-23.	1.1	79
25	Exploitation of thermochemical cycles based on solid oxide redox systems for thermochemical storage of solar heat. Part 4: Screening of oxides for use in cascaded thermochemical storage concepts. Solar Energy, 2016, 139, 695-710.	2.9	79
26	Redox chemistry of CaMnO₃ and Ca_{0.8}Sr_{0.2}MnO₃ oxygen storage perovskites. Journal of Materials Chemistry A, 2017, 5, 7912-7919.	5.2	79
27	Technologies and trends in solar power and fuels. Energy and Environmental Science, 2011, 4, 2503.	15.6	78
28	CO2 emission reduction in the cement industry by using a solar calciner. Renewable Energy, 2020, 145, 1578-1596.	4.3	77
29	Vacuum pumping options for application in solar thermochemical redox cycles â€“ Assessment of mechanical-, jet- and thermochemical pumping systems. Solar Energy, 2017, 141, 91-102.	2.9	74
30	Solar hydrogen production via sulphur based thermochemical water-splitting. Solar Energy, 2017, 156, 30-47.	2.9	72
31	Hydrogen production via sulfur-based thermochemical cycles: Part 2: Performance evaluation of Fe2O3-based catalysts for the sulfuric acid decomposition step. International Journal of Hydrogen Energy, 2011, 36, 6496-6509.	3.8	71
32	Ceria Doped with Zirconium and Lanthanide Oxides to Enhance Solar Thermochemical Production of Fuels. Journal of Physical Chemistry C, 2015, 119, 6929-6938.	1.5	71
33	Thermogravimetric Analysis of Zirconia-Doped Ceria for Thermochemical Production of Solar Fuel. American Journal of Analytical Chemistry, 2013, 04, 37-45.	0.3	63
34	Redox thermodynamics and phase composition in the system SrFeO3Î´ â€” SrMnO3Î´. Solid State Ionics, 2017, 308, 149-155.	1.3	59
35	Solar thermochemical heat storage via the Co3O4/CoO looping cycle: Storage reactor modelling and experimental validation. Solar Energy, 2017, 144, 453-465.	2.9	58
36	Solar treatment of cohesive particles in a directly irradiated rotary kiln. Solar Energy, 2019, 182, 480-490.	2.9	55

#	ARTICLE	IF	CITATIONS
37	Air separation and selective oxygen pumping via temperature and pressure swing oxygen adsorption using a redox cycle of SrFeO3 perovskite. Chemical Engineering Science, 2019, 203, 68-75.	1.9	53
38	Techno-economic analysis of combined concentrating solar power and desalination plant configurations in Israel and Jordan. Desalination and Water Treatment, 2012, 41, 9-25.	1.0	52
39	Exploitation of thermochemical cycles based on solid oxide redox systems for thermochemical storage of solar heat. Part 6: Testing of Mn-based combined oxides and porous structures. Solar Energy, 2017, 149, 227-244.	2.9	52
40	Statistical thermodynamics of non-stoichiometric ceria and ceria zirconia solid solutions. Physical Chemistry Chemical Physics, 2016, 18, 23147-23154.	1.3	50
41	High temperature production of hydrogen: Assessment of non-renewable resources technologies and emerging trends. International Journal of Hydrogen Energy, 2020, 45, 26022-26035.	3.8	49
42	Solar thermochemical hydrogen production using ceria zirconia solid solutions: Efficiency analysis. International Journal of Hydrogen Energy, 2016, 41, 19320-19328.	3.8	47
43	Oxidation and Reduction Reaction Kinetics of Mixed Cerium Zirconium Oxides. Journal of Physical Chemistry C, 2016, 120, 2027-2035.	1.5	47
44	Characterization and Evaluation of the Efficiency of TiO₂/Zinc Phthalocyanine Nanocomposites as Photocatalysts for Wastewater Treatment Using Solar Irradiation. International Journal of Photoenergy, 2008, 2008, 1-12.	1.4	44
45	Thermodynamic analysis of two-step solar water splitting with mixed iron oxides. International Journal of Energy Research, 2009, 33, 893-902.	2.2	44
46	Counter flow sweep gas demand for the ceria redox cycle. Solar Energy, 2015, 122, 1011-1022.	2.9	44
47	Development and test of a solar reactor for decomposition of sulphuric acid in thermochemical hydrogen production. International Journal of Hydrogen Energy, 2012, 37, 16615-16622.	3.8	43
48	Exploitation of thermochemical cycles based on solid oxide redox systems for thermochemical storage of solar heat. Part 5: Testing of porous ceramic honeycomb and foam cascades based on cobalt and manganese oxides for hybrid sensible/thermochemical heat storage. Solar Energy, 2016, 139, 676-694.	2.9	43
49	Assessment of sustainable high temperature hydrogen production technologies. International Journal of Hydrogen Energy, 2020, 45, 26156-26165.	3.8	43
50	Heat recovery concept for thermochemical processes using a solid heat transfer medium. Applied Thermal Engineering, 2014, 73, 1006-1013.	3.0	42
51	High temperature hydrogen production: Design of a 750 KW demonstration plant for a two step thermochemical cycle. Solar Energy, 2016, 135, 232-241.	2.9	41
52	Two-step thermochemical electrolysis: An approach for green hydrogen production. International Journal of Hydrogen Energy, 2021, 46, 24909-24918.	3.8	41
53	Concept analysis of an indirect particle-based redox process for solar-driven H2O/CO2 splitting. Solar Energy, 2015, 113, 158-170.	2.9	40
54	Design, development, construction and operation of a novel metal hydride compressor. International Journal of Hydrogen Energy, 2017, 42, 12364-12374.	3.8	40

#	Article	IF	Citations
55	Isothermal Water Splitting. Science, 2013, 341, 470-471.	6.0	39
56	Thermal model for the optimization of a solar rotary kiln to be used as high temperature thermochemical reactor. Solar Energy, 2013, 95, 279-289.	2.9	37
57	Study of kinetic parameters related to the degradation of an industrial effluent using Fenton-like reactions. Journal of Photochemistry and Photobiology A: Chemistry, 2006, 179, 269-275.	2.0	36
58	Hydrogen production via sulfur-based thermochemical cycles: Part 3: Durability and post-characterization of silicon carbide honeycomb substrates coated with metal oxide-based candidate catalysts for the sulfuric acid decomposition step. International Journal of Hydrogen Energy, 2012, 37, 8190-8203.	3.8	33
59	Carbon Capture for CO2 Emission Reduction in the Cement Industry in Germany. Energies, 2019, 12, 2432.	1.6	33
60	Development of a system model for a hydrogen production process on a solar tower. Solar Energy, 2012, 86, 99-111.	2.9	32
61	Sulphur based thermochemical cycles: Development and assessment of key components of the process. International Journal of Hydrogen Energy, 2013, 38, 6197-6204.	3.8	32
62	Tâ€“S diagram efficiency analysis of two-step thermochemical cycles for solar water splitting under various process conditions. Energy, 2014, 67, 298-308.	4.5	32
63	Analysis and improvement of a high-efficiency solar cavity reactor design for a two-step thermochemical cycle for solar hydrogen production from water. Solar Energy, 2013, 97, 26-38.	2.9	31
64	Solar photocatalytic water detoxification of paper mill effluents. Energy, 2004, 29, 835-843.	4.5	30
65	Demonstration of thermochemical oxygen pumping for atmosphere control in reduction reactions. Solar Energy, 2018, 170, 273-279.	2.9	30
66	Thermochemical oxygen pumping for improved hydrogen production in solar redox cycles. International Journal of Hydrogen Energy, 2019, 44, 9802-9810.	3.8	30
67	Solar photo-Fenton treatment of chip board production waste water. Solar Energy, 2004, 77, 583-589.	2.9	28
68	Hydrogen production by coupling pressurized high temperature electrolyser with solar tower technology. International Journal of Hydrogen Energy, 2017, 42, 13498-13509.	3.8	28
69	Redox Behavior of Solid Solutions in the SrFe_{1â€x}Cu_xO_{3â€Î´} System for Application in Thermochemical Oxygen Storage and Air Separation. Energy Technology, 2019, 7, 131-139.	1.8	28
70	A techno-economic perspective on solar-to-hydrogen concepts through 2025. Sustainable Energy and Fuels, 2020, 4, 5818-5834.	2.5	27
71	Solar Thermochemical Generation of Hydrogen: Development of a Receiver Reactor for the Decomposition of Sulfuric Acid. Journal of Solar Energy Engineering, Transactions of the ASME, 2009, 131, .	1.1	25
72	Future Fuelsâ€”Analyses of the Future Prospects of Renewable Synthetic Fuels. Energies, 2020, 13, 138.	1.6	25

#	Article	IF	Citations
73	Solar power tower as heat and electricity source for a solid oxide electrolyzer: a case study. International Journal of Energy Research, 2015, 39, 1120-1130.	2.2	24
74	On the assessment of renewable industrial processes: Case study for solar co-production of methanol and power. Applied Energy, 2016, 183, 121-132.	5.1	24
75	Isothermal relaxation kinetics for the reduction and oxidation of SrFeO₃ based perovskites. Physical Chemistry Chemical Physics, 2020, 22, 2466-2474.	1.3	24
76	Experimental study on sulfur trioxide decomposition in a volumetric solar receiver-reactor. International Journal of Energy Research, 2009, 33, 799-812.	2.2	23
77	Design of a pilot scale directly irradiated, high temperature, and low pressure moving particle cavity chamber for metal oxide reduction. Solar Energy, 2017, 157, 365-376.	2.9	23
78	Methanol production using hydrogen from concentrated solar energy. International Journal of Hydrogen Energy, 2020, 45, 26117-26125.	3.8	22
79	Solar collectors versus lampsâ€"a comparison of the energy demand of industrial photochemical processes as exemplified by the production of Îµ-caprolactam. Energy, 1999, 24, 681-687.	4.5	21
80	Solar Hydrogen by High-temperature Electrolysis: Flowsheeting and Experimental Analysis of a Tube-type Receiver Concept for Superheated Steam Production. Energy Procedia, 2014, 49, 1960-1969.	1.8	20
81	Performance analysis of operational strategies for monolithic receiver-reactor arrays in solar thermochemical hydrogen production plants. International Journal of Hydrogen Energy, 2020, 45, 26104-26116.	3.8	20
82	Recent progress towards solar energy integration into low-pressure green ammonia production technologies. International Journal of Hydrogen Energy, 2021, 46, 25121-25136.	3.8	20
83	Hybrid Sensible/Thermochemical Solar Energy Storage Concepts Based on Porous Ceramic Structures and Redox Pair Oxides Chemistry. Energy Procedia, 2015, 69, 706-715.	1.8	18
84	Electrochemical Hydrogen Production Powered by PV/CSP Hybrid Power Plants: A Modelling Approach for Cost Optimal System Design. Energies, 2021, 14, 3437.	1.6	18
85	Paper mill wastewater detoxification by solar photocatalysis. Water Science and Technology, 2004, 49, 189-193.	1.2	17
86	Reticulated Porous Perovskite Structures for Thermochemical Solar Energy Storage. Advanced Energy Materials, 2022, 12, .	10.2	17
87	Redox thermochemistry of Ca-Mn-based perovskites for oxygen atmosphere control in solar-thermochemical processes. Solar Energy, 2020, 198, 612-622.	2.9	16
88	Efficiency assessment of a two-step thermochemical water-splitting process based on a dynamic process model. International Journal of Hydrogen Energy, 2015, 40, 12108-12119.	3.8	15
89	Process modelling and heat management of the solar hybrid sulfur cycle. International Journal of Hydrogen Energy, 2015, 40, 4461-4473.	3.8	14
90	Design and construction of a cascading pressure reactor prototype for solar-thermochemical hydrogen production. AIP Conference Proceedings, 2016, , .	0.3	14

#	ARTICLE	IF	CITATIONS
91	Moving Brick Receiverâ€“Reactor: A Solar Thermochemical Reactor and Process Design With a Solidâ€“Solid Heat Exchanger and On-Demand Production of Hydrogen and/or Carbon Monoxide. Journal of Solar Energy Engineering, Transactions of the ASME, 2019, 141, .	1.1	13
92	Calibration of parameters for DEM simulations of solar particle receivers by bulk experiments and surrogate functions. Powder Technology, 2020, 364, 831-844.	2.1	13
93	ConstruÃ§Ã£o e estudos de perfomance de um reator fotoquÃmico tipo CPC ("Compound Parabolic) Tj ETQq1 1 0.784314 rgBT /Ove	0.3	12
94	Modeling of a solar receiver-reactor for sulfur-based thermochemical cycles for hydrogen generation. International Journal of Energy Research, 2011, 35, 449-458.	2.2	12
95	Cobalt Oxide-Based Structured Thermochemical Reactors/Heat Exchangers for Solar Thermal Energy Storage in Concentrated Solar Power Plants. , 2014, , .		12
96	Redox Oxides-Based Solar Thermochemistry and Its Materialization to Reactor/Heat Exchanger Concepts for Efficient Solar Energy Harvesting, Transformation and Storage. Journal of Solar Energy Engineering, Transactions of the ASME, 2019, 141, .	1.1	12
97	Numerical Model to Design a Thermochemical Storage System for Solar Power Plant. Energy Procedia, 2015, 75, 2137-2143.	1.8	11
98	Particleâ€“particle heat transfer coefficient in a binary packed bed of alumina and zirconia-ceria particles. Applied Thermal Engineering, 2016, 101, 101-111.	3.0	11
99	Available online Efficiency potential of indirectly heated solar reforming with different types of solar air receivers. Applied Thermal Engineering, 2016, 92, 202-209.	3.0	11
100	Experimental proof of concept of a pilot-scale thermochemical storage unit. AIP Conference Proceedings, 2017, , .	0.3	11
101	High performance solar receiverâ€“reactor for hydrogen generation. Renewable Energy, 2021, 179, 1217-1232.	4.3	11
102	Parametric investigation of a volumetric solar receiver-reactor. Solar Energy, 2020, 204, 256-269.	2.9	11
103	Solar calcium looping cycle for CO2 capturing in a cement plant. Definition of process parameters and reactors selection. Solar Energy, 2022, 238, 189-202.	2.9	11
104	A comparison of prototype compound parabolic collector-reactors (CPC) on the road to SOLARDETOX technology. Water Science and Technology, 2001, 44, 271-278.	1.2	10
105	Solid Phase Heat Recovery and Multi Chamber Reduction for Redox Cycles. , 2014, , .		10
106	Design of a Thermochemical Storage System for Air-operated Solar Tower Power Plants. Energy Procedia, 2015, 69, 1039-1048.	1.8	10
107	Entropy Analysis of Solar Two-Step Thermochemical Cycles for Water and Carbon Dioxide Splitting. Entropy, 2016, 18, 24.	1.1	10
108	Fabrication and testing of CONTISOL: A new receiver-reactor for day and night solar thermochemistry. Applied Thermal Engineering, 2017, 127, 46-57.	3.0	10

#	ARTICLE	IF	CITATIONS
109	Oxide particles as combined heat storage medium and sulphur trioxide decomposition catalysts for solar hydrogen production through sulphur cycles. International Journal of Hydrogen Energy, 2019, 44, 9830-9840.	3.8	10
110	Synergies between Direct Air Capture Technologies and Solar Thermochemical Cycles in the Production of Methanol. Energies, 2021, 14, 4818.	1.6	10
111	Kinetic investigations of the hydrogen production step of a thermochemical cycle using mixed iron oxides coated on ceramic substrates. International Journal of Energy Research, 2009, 34, n/a-n/a.	2.2	9
112	Material Analysis of Coated Siliconized Silicon Carbide (SiSiC) Honeycomb Structures for Thermochemical Hydrogen Production. Materials, 2013, 6, 421-436.	1.3	9
113	Modelling and scaling analysis of a solar reactor for sulphuric acid cracking in a hybrid sulphur cycle process for thermochemical hydrogen production. International Journal of Hydrogen Energy, 2016, 41, 8008-8019.	3.8	9
114	Citric acid auto-combustion synthesis of Ti-containing perovskites via aqueous precursors. Solid State Ionics, 2018, 315, 92-97.	1.3	9
115	Performance Assessment of a Heat Recovery System for Monolithic Receiver-Reactors. Journal of Solar Energy Engineering, Transactions of the ASME, 2019, 141, .	1.1	9
116	Holistic View on Synthetic Natural Gas Production: A Technical, Economic and Environmental Analysis. Energies, 2022, 15, 1608.	1.6	9
117	(Solar) Mixed Reforming of Methane: Potential and Limits in Utilizing CO2 as Feedstock for Syngas Productionâ€"A Thermodynamic Analysis. Energies, 2018, 11, 2537.	1.6	8
118	HycycleS: a project on nuclear and solar hydrogen production by sulphur-based thermochemical cycles. International Journal of Nuclear Hydrogen Production and Applications, 2011, 2, 202.	0.2	7
119	Heat transfer in a directly irradiated ceria particle bed under vacuum conditions. Solar Energy, 2017, 158, 737-745.	2.9	7
120	Solar rotary kiln for continuous treatment of particle material: Chemical experiments from micro to milli meter particle size. AIP Conference Proceedings, 2020, , .	0.3	7
121	Study of a new receiver-reactor cavity system with multiple mobile redox units for solar thermochemical water splitting. Solar Energy, 2022, 235, 118-128.	2.9	7
122	Simulation of a Solar Receiver-Reactor for Hydrogen Production. , 2009, , .		6
123	Potential of hybridisation of the thermochemical hybrid-sulphur cycle for the production of hydrogen by using nuclear and solar energy in the same plant. International Journal of Nuclear Hydrogen Production and Applications, 2011, 2, 178.	0.2	6
124	Modeling of a Solar Receiver for Superheating Sulfuric Acid. Journal of Solar Energy Engineering, Transactions of the ASME, 2016, 138, .	1.1	6
125	Solar Thermochemical Cyles for Fuel Production in Germany. Journal of Solar Energy Engineering, Transactions of the ASME, 2019, 141, .	1.1	6
126	Efficiency assessment of solar redox reforming in comparison to conventional reforming. International Journal of Hydrogen Energy, 2020, 45, 4137-4151.	3.8	6

#	ARTICLE	IF	CITATIONS
127	Solar Hydrogen Production by a Two-Step Cycle Based on Mixed Iron Oxides. , 2005, , 671.		5
128	Solar Thermal Water Splitting. , 2013, , 63-86.		5
129	Sulfur Based Thermochemical Energy Storage for Concentrated Solar Power. , 2013, , .		5
130	A solar receiver-storage modular cascade based on porous ceramic structures for hybrid sensible/thermochemical solar energy storage. AIP Conference Proceedings, 2016, , .	0.3	5
131	Experimental and numerical analysis of a solar rotary kiln for continuous treatment of particle material. AIP Conference Proceedings, 2018, , .	0.3	5
132	One year with synlight â€“ Review of operating experience. AIP Conference Proceedings, 2019, , .	0.3	5
133	Impact of bed motion on the wall-to-bed heat transfer for powders in a rotary kiln and effect of built-ins. International Journal of Heat and Mass Transfer, 2021, 177, 121473.	2.5	5
134	Oxygen Crossover in Solidâ€“Solid Heat Exchangers for Solar Water and Carbon Dioxide Splitting: A Thermodynamic Analysis. Journal of Energy Resources Technology, Transactions of the ASME, 2021, 143, .	1.4	5
135	Integration assessment of the hybrid sulphur cycle with a copper production plant. Energy Conversion and Management, 2021, 249, 114832.	4.4	5
136	Reactions of Uracils, 24. Multiple Anellation to Uracils and their Analogs - An Approach to Nevirapine-Type Tricycles. Synthetic Communications, 1999, 29, 3919-3937.	1.1	4
137	FUELS â€“ HYDROGEN PRODUCTION | Natural Gas: Solar-Thermal Steam Reforming. , 2009, , 300-312.		4
138	A multicriteria approach for evaluating high temperature hydrogen production processes. International Journal of Multicriteria Decision Making, 2011, 1, 177.	0.1	4
139	Hydrogen production via thermochemical water splitting. , 2015, , 319-347.		4
140	A particle receiver-driven thermochemical cycle employing elemental sulphur for solar thermochemical energy storage: Investigation of particles as concentrated sunlight harvesting media and sulphur trioxide splitting catalysts. Solar Energy, 2022, 234, 21-38.	2.9	4
141	Techno-Economic Assessment of the Integration of Direct Air Capture and the Production of Solar Fuels. Energies, 2022, 15, 5017.	1.6	4
142	Concept and economic evaluation of an industrial synthesis of Îµ-caprolactam via solar photooximation of cyclohexane. European Physical Journal Special Topics, 1999, 09, Pr3-723-Pr3-727.	0.2	3
143	FUELS â€“ HYDROGEN PRODUCTION | Thermochemical Cycles. , 2009, , 384-393.		3
144	Development of a simulation-software for a hydrogen production process on a solar tower. Solar Energy, 2015, 112, 205-217.	2.9	3

#	Article	IF	Citations
145	Oxides and porous structures based on earth-abundant elements for hybrid sensible/thermochemical solar energy storage in air-operated solar thermal power plants. AIP Conference Proceedings, 2018, , .	0.3	3
146	Demonstration Reactor System for the Indirect Solar-Thermochemical Reduction of Redox Particlesâ€"The Particle Mix Reactor. Journal of Energy Resources Technology, Transactions of the ASME, 2020, 142, .	1.4	3
147	Solar energy conversion and storage through sulphur-based thermochemical cycles implemented on centrifugal particle receivers. AIP Conference Proceedings, 2020, , .	0.3	3
148	Oxidation kinetics of La and Yb incorporated Zr-doped ceria for solar thermochemical fuel production in the context of dopant ionic radius and valence. Open Ceramics, 2022, 10, 100269.	1.0	3
149	Hydrogen Production by Solar Reforming of Natural Gas: A Cost Study. , 2004, , 505.		2
150	Simulation of a Volumetric Solar Receiver-Reactor for Hydrogen Producing Thermochemical Cycles. , 2009, , .		2
151	Hybrid Sensible/Thermochemical Storage of Solar Energy in Cascades of Redox-Oxide-Pair-Based Porous Ceramics. , 2015, , .		2
152	SolarSyngas: Results from a virtual institute developing materials and key components for solar thermochemical fuel production. AIP Conference Proceedings, 2016, , .	0.3	2
153	Performance Analysis and Optimization of Solar Thermochemical Waterâ€Splitting Cycle with Single and Multiple Receivers. Energy Technology, 0, , 2100220.	1.8	2
154	Solar Aluminum Recycling in a Directly Heated Rotary Kiln. , 2016, , 235-240.		2
155	Bicyclic 6-6 Systems: Other Four Heteroatoms 2:2. , 1996, , 737-783.		1
156	Solare Verfahren zur Wasserstofferzeugung. Chemie-Ingenieur-Technik, 2004, 76, 1704-1708.	0.4	1
157	Kinetic Investigations of a Two-Step Thermochemical Water-Splitting Cycle Using Mixed Iron Oxides Fixed on Ceramic Substrates. , 2008, , .		1
158	Numerical Optimization of a Volumetric Solar Receiver-Reactor for Thermochemical Hydrogen Generation via Decomposition of Sulfur Trioxide. , 2010, , .		1
159	Numerical analysis of operation conditions and design aspects of a sulfur trioxide decomposer for solar energy conversion. International Journal of Energy Research, 2012, 36, 798-808.	2.2	1
160	Solar-Aided Syngas Production via Two-Step, Redox-Pair-Based Thermochemical Cycles. , 2015, , 475-513.		1
161	Development of a Solar Fuels Roadmap for South Africa. Energy Procedia, 2015, 69, 1838-1848.	1.8	1
162	Solar-Driven Continuous Methane Reforming Reactor. Green Energy and Technology, 2016, , 249-255.	0.4	1

#	ARTICLE	IF	CITATIONS
163	Out-of-Lab Solar Photocatalytic Hydrogen Production in the Presence of Methanol Employing the Solar Concentrator SoCRatus. , 2016, , .		1
164	Mitigation methods for errors in oxygen measurement with redox cycling of materials for hydrogen and syngas production. International Journal of Hydrogen Energy, 2018, 43, 9165-9180.	3.8	1
165	Development of a Novel Solar Photoelectrochemical Tandem Reactor With a Perforated Photocathode for Simultaneous Hydrogen Production and Waste Water Treatment. , 2018, , .		1
166	4.18 Solar Fuels. , 2018, , 733-761.		1
167	Solar Thermochemical Generation of Hydrogen: Development of a Receiver Reactor for the Decomposition of Sulfuric Acid. , 2007, , .		1
168	Investigations of the Regeneration Step of a Thermochemical Cycle Using Mixed Iron Oxides Coated on SiSiC Substrates. , 2011, , .		1
169	Oxygen Crossover in Solid-Solid Heat Exchangers for Solar Water and Carbon Dioxide Splitting: A Thermodynamic Analysis. , 2020, , .		1
170	Ammonia and nitrogen-based fertilizer production by solar-thermochemical processes. AIP Conference Proceedings, 2020, , .	0.3	1
171	Solar thermal methane reforming. Advances in Chemical Engineering, 2021, 58, 91-130.	0.5	1
172	Operation optimization of an array of receiver-reactors for solar fuel production. AIP Conference Proceedings, 2022, , .	0.3	1
173	Solar thermochemical energy storage in elemental sulphur: Design, development and construction of a lab-scale sulphuric acid splitting reactor powered by hot ceramic particles. AIP Conference Proceedings, 2022, , .	0.3	1
174	Double-Focus Configuration at DLR Solar Furnace for Operating a Continuous Reactor. , 2006, , 29.		0
175	Analysis of Thermodynamics of Two-Step Solar Water Splitting. , 2008, , .		0
176	Examples of Solar Thermal Fuel Production. , 2011, , .		0
177	Development of a Concentrator With a Rectangular Flat Focus Used for Hydrogen Production via Photocatalytic Water Splitting Employing Solar Radiation. , 2012, , .		0
178	Design of a Concentrator With a Rectangular Flat Focus and Operation With a Suspension Reactor for Experiments in the Field of Photocatalytic Water Splitting. , 2014, , .		0
179	Modeling of a Solar Receiver for Superheating Sulfuric Acid. , 2015, , .		0
180	Making Fuel While the Sun Shines. Mechanical Engineering, 2015, 137, 46-51.	0.0	0

#	Article	IF	Citations
181	Particle Conveyer for Solar Thermo-Chemical Processes and Related Solid Heat Recovery Systems. , 2016, , .		0
182	Thermodynamic Model of a Solar Receiver for Superheating of Sulfur Trioxide and Steam at Pilot Plant Scale. , 2016, , .		0
183	Modeling, simulation and economic analysis of CSP-driven solar fuel plant for diesel and gasoline production. AIP Conference Proceedings, 2019, , .	0.3	0
184	Efficient Solar Thermal Processes From Carbon Based to Carbon Free Hydrogen Production. , 2006, , .		0
185	HYDROGEN PRODUCTION VIA WATER SPLITTING IN SOLAR REACTORS: THE HYDROSOL PROCESS. , 2009, , .		0
186	Making Fuel While the Sun Shines. Mechanical Engineering, 2014, 136, 38-43.	0.0	0
187	Demonstration Reactor System for the Indirect Solar-Thermochemical Reduction of Redox Particles: The Particle Mix Reactor. , 2019, , .		0
188	Paper mill wastewater detoxification by solar photocatalysis. Water Science and Technology, 2004, 49, 189-93.	1.2	0