

Rachael H Elder

List of Publications by Year in descending order

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Version: 2024-02-01

40
papers

1,381
citations

623188

14
h-index

329751

37
g-index

41
all docs

41
docs citations

41
times ranked

1740
citing authors

#	ARTICLE	IF	CITATIONS
1	Carbon dioxide utilisation for production of transport fuels: process and economic analysis. <i>Energy and Environmental Science</i> , 2015, 8, 1775-1789.	15.6	235
2	Life cycle assessment of bio-based and fossil-based plastic: A review. <i>Journal of Cleaner Production</i> , 2020, 261, 121158.	4.6	216
3	Nuclear heat for hydrogen production: Coupling a very high/high temperature reactor to a hydrogen production plant. <i>Progress in Nuclear Energy</i> , 2009, 51, 500-525.	1.3	148
4	Effects of particle size on CO ₂ reduction and discharge characteristics in a packed bed plasma reactor. <i>Chemical Engineering Journal</i> , 2016, 293, 55-67.	6.6	131
5	HYTHEC: An EC funded search for a long term massive hydrogen production route using solar and nuclear technologies. <i>International Journal of Hydrogen Energy</i> , 2007, 32, 1516-1529.	3.8	127
6	Low-temperature co-sintering for fabrication of zirconia/ceria bi-layer electrolyte via tape casting using a Fe ₂ O ₃ sintering aid. <i>Journal of the European Ceramic Society</i> , 2017, 37, 3981-3993.	2.8	53
7	Many Happy Returns: Combining insights from the environmental and behavioural sciences to understand what is required to make reusable packaging mainstream. <i>Sustainable Production and Consumption</i> , 2021, 27, 1688-1702.	5.7	53
8	Techno-enviro-economic assessment of household and community energy storage in the UK. <i>Energy Conversion and Management</i> , 2020, 205, 112330.	4.4	50
9	Peer-to-peer electricity trading as an enabler of increased PV and EV ownership. <i>Energy Conversion and Management</i> , 2021, 245, 114634.	4.4	37
10	Utilising carbon dioxide for transport fuels: The economic and environmental sustainability of different Fischer-Tropsch process designs. <i>Applied Energy</i> , 2019, 253, 113560.	5.1	34
11	Sulphur based thermochemical cycles: Development and assessment of key components of the process. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 6197-6204.	3.8	32
12	Improving the feasibility of household and community energy storage: A techno-enviro-economic study for the UK. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 131, 110009.	8.2	30
13	Integrating life cycle assessment and environmental risk assessment: A critical review. <i>Journal of Cleaner Production</i> , 2021, 293, 126120.	4.6	21
14	The Separation of H ₂ in the Sulphur-Iodine Thermochemical Cycle for Sustainable Hydrogen Production. <i>Chemical Engineering Research and Design</i> , 2005, 83, 343-350.	2.7	19
15	Improved solvation routes for the Bunsen reaction in the sulphur iodine thermochemical cycle: Part III - Bunsen reaction in molecular solvents. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 1784-1794.	3.8	14
16	Thermal imaging of solid oxide cells operating under electrolysis conditions. <i>Journal of Power Sources</i> , 2015, 280, 387-392.	4.0	14
17	Development of a diffuse reflectance infrared fourier transform spectroscopy (DRIFTS) cell for the in situ analysis of co-electrolysis in a solid oxide cell. <i>Faraday Discussions</i> , 2015, 182, 97-111.	1.6	14
18	High temperature oxygen separation for the sulphur family of thermochemical cycles - part I: Membrane selection and flux testing. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 10614-10625.	3.8	12

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19	Measurements of the solubility of sulphur dioxide in water for the sulphur family of thermochemical cycles. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 4749-4756.	3.8	12
20	Graph Theory Applied to Plasma Chemical Reaction Engineering. <i>Plasma Chemistry and Plasma Processing</i> , 2021, 41, 531-557.	1.1	12
21	High Temperature Electrolysis. , 2015, , 183-209.		11
22	Reimagining the milk supply chain: Reusable vessels for bulk delivery. <i>Sustainable Production and Consumption</i> , 2021, 27, 1030-1046.	5.7	11
23	Nickel Impregnated Cerium-Doped Strontium Titanate Fuel Electrode: Direct Carbon Dioxide Electrolysis and Co-Electrolysis. <i>Journal of the Electrochemical Society</i> , 2016, 163, F3057-F3061.	1.3	10
24	The feasibility of membrane separations in the Hlx processing section of the sulphur iodine thermochemical cycle. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 6614-6624.	3.8	9
25	Improved solvation routes for the Bunsen reaction in the sulphur iodine thermochemical cycle: Part I " Ionic liquids. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 1765-1774.	3.8	9
26	High temperature oxygen separation for the sulphur family of thermochemical cycles " Part II: Sulphur poisoning and membrane performance recovery. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 785-794.	3.8	9
27	Improved solvation routes for the Bunsen reaction in the sulphur iodine thermochemical cycle: Part II " Molecular solvent properties. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 1775-1783.	3.8	9
28	Establishing the value of community energy storage: A comparative analysis of the UK and Germany. <i>Journal of Energy Storage</i> , 2021, 40, 102709.	3.9	9
29	Dewatering of Hlx solutions by pervaporation through Nafion® membranes. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 6129-6136.	3.8	8
30	Engineering chemistry to meet COP26 targets. <i>Nature Reviews Chemistry</i> , 2022, 6, 1-3.	13.8	8
31	Residential PV-BES Systems: Economic and Grid Impact Analysis. <i>Energy Procedia</i> , 2018, 151, 199-208.	1.8	6
32	Impact of Household Heterogeneity on Community Energy Storage in the UK. <i>Energy Reports</i> , 2020, 6, 117-123.	2.5	5
33	Carbon Capture and Utilisation: Application of Life Cycle Thinking to Process Design. <i>Computer Aided Chemical Engineering</i> , 2015, , 1457-1462.	0.3	3
34	A unique approach to the vapour phase of the Hlx feed of the sulfur iodine thermochemical cycle: A Raman spectroscopy study. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 1657-1664.	3.8	3
35	In-Situ Monitoring of Solid Oxide Electrolysis Cells. <i>ECS Transactions</i> , 2013, 58, 207-216.	0.3	2
36	Improving the Efficiency of High-Temperature Electrolysis of Carbon Dioxide in a Solid Oxide Cell. <i>ECS Transactions</i> , 2019, 91, 2623-2630.	0.3	2

#	ARTICLE	IF	CITATIONS
37	Voltage pulsing for performance recovery of yttria-stabilised zirconia membranes in oxygen/sulfur dioxide separation. International Journal of Hydrogen Energy, 2014, 39, 15670-15680.	3.8	1
38	Methodology for Analysis of Solid Oxide Cells via Raman Spectroscopy. ECS Transactions, 2015, 68, 2083-2092.	0.3	1
39	Electrochemical Impedance Spectroscopy Data from Solid Oxide Cells Undergoing Co-Electrolysis: The Influence of Rig Inductance. ECS Transactions, 2015, 68, 3417-3427.	0.3	1
40	System studies and understanding durability: general discussion. Faraday Discussions, 2015, 182, 437-456.	1.6	0