## Rachael H Elder

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Carbon dioxide utilisation for production of transport fuels: process and economic analysis. Energy and Environmental Science, 2015, 8, 1775-1789.	30.8	235
2	Life cycle assessment of bio-based and fossil-based plastic: A review. Journal of Cleaner Production, 2020, 261, 121158.	9.3	216
3	Nuclear heat for hydrogen production: Coupling a very high/high temperature reactor to a hydrogen production plant. Progress in Nuclear Energy, 2009, 51, 500-525.	2.9	148
4	Effects of particle size on CO 2 reduction and discharge characteristics in a packed bed plasma reactor. Chemical Engineering Journal, 2016, 293, 55-67.	12.7	131
5	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.	7.1	127
6	Low-temperature co-sintering for fabrication of zirconia/ceria bi-layer electrolyte via tape casting using a Fe2O3 sintering aid. Journal of the European Ceramic Society, 2017, 37, 3981-3993.	5.7	53
7	Many Happy Returns: Combining insights from the environmental and behavioural sciences to understand what is required to make reusable packaging mainstream. Sustainable Production and Consumption, 2021, 27, 1688-1702.	11.0	53
8	Techno-enviro-economic assessment of household and community energy storage in the UK. Energy Conversion and Management, 2020, 205, 112330.	9.2	50
9	Peer-to-peer electricity trading as an enabler of increased PV and EV ownership. Energy Conversion and Management, 2021, 245, 114634.	9.2	37
10	Utilising carbon dioxide for transport fuels: The economic and environmental sustainability of different Fischer-Tropsch process designs. Applied Energy, 2019, 253, 113560.	10.1	34
11	Sulphur based thermochemical cycles: Development and assessment of key components of the process. International Journal of Hydrogen Energy, 2013, 38, 6197-6204.	7.1	32
12	Improving the feasibility of household and community energy storage: A techno-enviro-economic study for the UK. Renewable and Sustainable Energy Reviews, 2020, 131, 110009.	16.4	30
13	Integrating life cycle assessment and environmental risk assessment: A critical review. Journal of Cleaner Production, 2021, 293, 126120.	9.3	21
14	The Separation of Hix in the Sulphur–Iodine Thermochemical Cycle for Sustainable Hydrogen Production. Chemical Engineering Research and Design, 2005, 83, 343-350.	5.6	19
15	Improved solvation routes for the Bunsen reaction in the sulphur iodine thermochemical cycle: Part Ill–Bunsen reaction in molecular solvents. International Journal of Hydrogen Energy, 2013, 38, 1784-1794.	7.1	14
16	Thermal imaging of solid oxide cells operating under electrolysis conditions. Journal of Power Sources, 2015, 280, 387-392.	7.8	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. Faraday Discussions, 2015, 182, 97-111.	3.2	14
18	High temperature oxygen separation for the sulphur family of thermochemical cycles - part I: Membrane selection and flux testing. International Journal of Hydrogen Energy, 2011, 36, 10614-10625.	7.1	12

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19	Measurements of the solubility of sulphur dioxide in water for the sulphur family of thermochemical cycles. International Journal of Hydrogen Energy, 2011, 36, 4749-4756.	7.1	12
20	Graph Theory Applied to Plasma Chemical Reaction Engineering. Plasma Chemistry and Plasma Processing, 2021, 41, 531-557.	2.4	12
21	High Temperature Electrolysis. , 2015, , 183-209.		11
22	Reimagining the milk supply chain: Reusable vessels for bulk delivery. Sustainable Production and Consumption, 2021, 27, 1030-1046.	11.0	11
23	Nickel Impregnated Cerium-Doped Strontium Titanate Fuel Electrode: Direct Carbon Dioxide Electrolysis and Co-Electrolysis. Journal of the Electrochemical Society, 2016, 163, F3057-F3061.	2.9	10
24	The feasibility of membrane separations in the HIx processing section of the sulphur iodine thermochemical cycle. International Journal of Hydrogen Energy, 2009, 34, 6614-6624.	7.1	9
25	Improved solvation routes for the Bunsen reaction in the sulphur iodine thermochemical cycle: Part I – Ionic liquids. International Journal of Hydrogen Energy, 2013, 38, 1765-1774.	7.1	9
26	High temperature oxygen separation for the sulphur family of thermochemical cycles – Part II: Sulphur poisoning and membrane performance recovery. International Journal of Hydrogen Energy, 2013, 38, 785-794.	7.1	9
27	Improved solvation routes for the Bunsen reaction in the sulphur iodine thermochemical cycle: Part II – Molecular solvent properties. International Journal of Hydrogen Energy, 2013, 38, 1775-1783.	7.1	9
28	Establishing the value of community energy storage: A comparative analysis of the UK and Germany. Journal of Energy Storage, 2021, 40, 102709.	8.1	9
29	Dewatering of HIx solutions by pervaporation through Nafion® membranes. International Journal of Hydrogen Energy, 2009, 34, 6129-6136.	7.1	8
30	Engineering chemistry to meet COP26 targets. Nature Reviews Chemistry, 2022, 6, 1-3.	30.2	8
31	Residential PV-BES Systems: Economic and Grid Impact Analysis. Energy Procedia, 2018, 151, 199-208.	1.8	6
32	Impact of Household Heterogeneity on Community Energy Storage in the UK. Energy Reports, 2020, 6, 117-123.	5.1	5
33	Carbon Capture and Utilisation: Application of Life Cycle Thinking to Process Design. Computer Aided Chemical Engineering, 2015, , 1457-1462.	0.5	3
34	A unique approach to the vapour phase of the HI x feed of the sulfur iodine thermochemical cycle: A Raman spectroscopy study. International Journal of Hydrogen Energy, 2015, 40, 1657-1664.	7.1	3
35	In-Situ Monitoring of Solid Oxide Electrolysis Cells. ECS Transactions, 2013, 58, 207-216.	0.5	2
36	Improving the Efficiency of High-Temperature Electrolysis of Carbon Dioxide in a Solid Oxide Cell. ECS Transactions, 2019, 91, 2623-2630.	0.5	2

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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.	7.1	1
38	Methodology for Analysis of Solid Oxide Cells via Raman Spectroscopy. ECS Transactions, 2015, 68, 2083-2092.	0.5	1
39	Electrochemical Impedance Spectroscopy Data from Solid Oxide Cells Undergoing Co-Electrolysis: The Influence of Rig Inductance. ECS Transactions, 2015, 68, 3417-3427.	0.5	1
40	System studies and understanding durability: general discussion. Faraday Discussions, 2015, 182, 437-456.	3.2	0