

# Christopher K Russell

## List of Publications by Year in descending order

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48  
papers

1,992  
citations

304368

22  
h-index

253896

43  
g-index

48  
all docs

48  
docs citations

48  
times ranked

2100  
citing authors

#	ARTICLE	IF	CITATIONS
1	CO <sub>2</sub> hydrogenation to high-value products via heterogeneous catalysis. <i>Nature Communications</i> , 2019, 10, 5698.	5.8	571
2	Double-shelled ZnSnO <sub>3</sub> hollow cubes for efficient photocatalytic degradation of antibiotic wastewater. <i>Chemical Engineering Journal</i> , 2020, 384, 123279.	6.6	179
3	Recovery of rare earth elements with ionic liquids. <i>Green Chemistry</i> , 2017, 19, 4469-4493.	4.6	126
4	Ca <sub>2</sub> Fe <sub>2</sub> O <sub>5</sub> : A promising oxygen carrier for CO/CH <sub>4</sub> conversion and almost-pure H <sub>2</sub> production with inherent CO <sub>2</sub> capture over a two-step chemical looping hydrogen generation process. <i>Applied Energy</i> , 2018, 211, 431-442.	5.1	119
5	Improvement of H <sub>2</sub> -rich gas production with tar abatement from pine wood conversion over bi-functional Ca <sub>2</sub> Fe <sub>2</sub> O <sub>5</sub> catalyst: Investigation of inner-looping redox reaction and promoting mechanisms. <i>Applied Energy</i> , 2018, 212, 931-943.	5.1	89
6	Recent progress in improving the stability of copper-based catalysts for hydrogenation of carbon-oxygen bonds. <i>Catalysis Science and Technology</i> , 2018, 8, 3428-3449.	2.1	89
7	Effects of CeO <sub>2</sub> , ZrO <sub>2</sub> , and Al <sub>2</sub> O <sub>3</sub> Supports on Iron Oxygen Carrier for Chemical Looping Hydrogen Generation. <i>Energy &amp; Fuels</i> , 2017, 31, 8001-8013.	2.5	63
8	Thermogravimetric and kinetics investigation of pine wood pyrolysis catalyzed with alkali-treated CaO/ZSM-5. <i>Energy Conversion and Management</i> , 2017, 146, 182-194.	4.4	57
9	Chemical looping oxidative steam reforming of methanol: A new pathway for auto-thermal conversion. <i>Applied Catalysis B: Environmental</i> , 2020, 269, 118758.	10.8	57
10	Synergistic enhancement of chemical looping-based CO <sub>2</sub> splitting with biomass cascade utilization using cyclic stabilized Ca <sub>2</sub> Fe <sub>2</sub> O <sub>5</sub> aerogel. <i>Journal of Materials Chemistry A</i> , 2019, 7, 1216-1226.	5.2	43
11	Structural Interconversion between Agglomerated Palladium Domains and Mononuclear Pd(II) Cations in Chabazite Zeolites. <i>Chemistry of Materials</i> , 2021, 33, 1698-1713.	3.2	42
12	The crucial role of deoxygenation in syngas refinement and carbon dioxide utilization during chemical looping-based biomass gasification. <i>Chemical Engineering Journal</i> , 2022, 428, 132068.	6.6	40
13	Thermocatalytic formic acid dehydrogenation: recent advances and emerging trends. <i>Journal of Materials Chemistry A</i> , 2021, 9, 24241-24260.	5.2	39
14	Investigation of synergistic effects and high performance of La-Co composite oxides for toluene catalytic oxidation at low temperature. <i>Environmental Science and Pollution Research</i> , 2019, 26, 12123-12135.	2.7	36
15	Investigation of Gasification Chemical Looping Combustion Combined Cycle Performance. <i>Energy &amp; Fuels</i> , 2008, 22, 961-966.	2.5	35
16	Understanding the catalytic mechanisms of CO <sub>2</sub> hydrogenation to methanol on unsupported and supported Ga-Ni clusters. <i>Applied Energy</i> , 2019, 253, 113623.	5.1	34
17	Biomass pyrolysis-gasification over Zr promoted CaO-HZSM-5 catalysts for hydrogen and bio-oil co-production with CO <sub>2</sub> capture. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 16031-16044.	3.8	33
18	Performance improvement of combined cycle power plant based on the optimization of the bottom cycle and heat recuperation. <i>Journal of Thermal Science</i> , 2007, 16, 84-89.	0.9	27

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19	Costa Effective Palladium Doped Cu Bimetallic Materials to Tune Selectivity and Activity by using Doped Atom Ensembles as Active Sites for Efficient Removal of Acetylene from Ethylene. ChemCatChem, 2018, 10, 2424-2432.	1.8	27
20	Thermodynamic and Kinetic Study on Carbon Dioxide Hydrogenation to Methanol over a Ga <sub>3</sub> Ni <sub>5</sub> (111) Surface: The Effects of Step Edge. Journal of Physical Chemistry C, 2018, 122, 315-330.	1.5	26
21	Highly efficient methane decomposition to H <sub>2</sub> and CO <sub>2</sub> reduction to CO via redox looping of Ca <sub>2</sub> FexAl <sub>2-x</sub> O <sub>5</sub> supported Ni <sub>y</sub> Fe <sub>3-y</sub> O <sub>4</sub> nanoparticles. Applied Catalysis B: Environmental, 2020, 271, 118938.	10.8	24
22	Sorption enhanced coal gasification for hydrogen production using a synthesized CaOMgO-molecular sieve sorbent. International Journal of Hydrogen Energy, 2016, 41, 17323-17333.	3.8	23
23	Enhanced Hydrogen Generation for Fe <sub>2</sub> O <sub>3</sub> /CeO <sub>2</sub> Oxygen Carrier via Rare-Earth (Y, Sm, and La) Doping in Chemical Looping Process. Energy & Fuels, 2018, 32, 11362-11374.	2.5	22
24	Synergistic Effects of the Zr and Sm Co-doped Fe <sub>2</sub> O <sub>3</sub> /CeO <sub>2</sub> Oxygen Carrier for Chemical Looping Hydrogen Generation. Energy & Fuels, 2020, 34, 10256-10267.	2.5	21
25	Solar "Wind" Bio Ecosystem for Biomass Cascade Utilization with Multigeneration of Formic Acid, Hydrogen, and Graphene. ACS Sustainable Chemistry and Engineering, 2019, 7, 2558-2568.	3.2	19
26	Effect of calcium ferrites on carbon dioxide gasification reactivity and kinetics of pine wood derived char. Renewable Energy, 2021, 163, 445-452.	4.3	19
27	Investigation of coal fueled chemical looping combustion using Fe <sub>3</sub> O <sub>4</sub> as oxygen carrier: Influence of variables. Journal of Thermal Science, 2010, 19, 266-275.	0.9	15
28	Thermodynamics of NaHCO <sub>3</sub> decomposition during Na <sub>2</sub> CO <sub>3</sub> -based CO <sub>2</sub> capture. Journal of Environmental Sciences, 2019, 78, 74-80.	3.2	15
29	Tailoring lattice oxygen triggered NiO/Ca <sub>9</sub> Co <sub>12</sub> O <sub>28</sub> catalysts for sorption-enhanced renewable hydrogen production. Applied Catalysis B: Environmental, 2022, 316, 121642.	10.8	14
30	Boosting the surface oxygen activity for high performance Iron-based perovskite oxide. Science of the Total Environment, 2021, 795, 148904.	3.9	11
31	A new and different insight into the promotion mechanisms of Ga for the hydrogenation of carbon dioxide to methanol over a Ga-doped Ni(211) bimetallic catalyst. Nanoscale, 2019, 11, 9969-9979.	2.8	10
32	Application of incremental support vector regression based on optimal training subset and improved particle swarm optimization algorithm in real-time sensor fault diagnosis. Applied Intelligence, 2021, 51, 3323-3338.	3.3	9
33	Classification and prediction of gas turbine gas path degradation based on deep neural networks. International Journal of Energy Research, 2021, 45, 10513-10526.	2.2	8
34	Enhanced Fe <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> Oxygen Carriers for Chemical Looping Steam Reforming of Methane with Different Mg Ratios. Industrial & Engineering Chemistry Research, 2022, 61, 1022-1031.	1.8	8
35	Application of chemical looping air separation for MILD oxy-combustion in the supercritical power plant with CO <sub>2</sub> capture. Energy Science and Engineering, 2018, 6, 490-505.	1.9	6
36	Multi-objective economic emission dispatch of thermal power plants based on grey relational analysis and analytic hierarchy process. Energy and Environment, 2020, 31, 785-812.	2.7	5

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37	Modification of Metal (Fe, Al) Doping on Reaction Properties of a NiO Oxygen Carrier with CO during Chemical Looping Combustion. ACS Omega, 2022, 7, 4381-4388.	1.6	5
38	Development of a simplified method for the determination of ampere-hour capacity of leadâ€“acid battery. Energy and Environment, 2018, 29, 147-161.	2.7	4
39	TiO(OH) <sub>2</sub> can exceed the critical limit of conventional CO <sub>2</sub> sorbents: modification needed for high capacity and selectivity. Chemical Communications, 2018, 54, 8395-8398.	2.2	4
40	Chemometric modelling on element compositions and product distributions of cellulose and lignin. Biomass Conversion and Biorefinery, 2021, 11, 2233-2246.	2.9	4
41	Performance improvement of a 330MWe power plant by flue gas heat recovery system. Thermal Science, 2016, 20, 303-314.	0.5	4
42	Nonlinear system identification with modified differential evolution and RBF networks. , 2012, , .		3
43	Thermodynamic Analysis and Optimization of an Oxyfuel Fluidized Bed Combustion Power Plant for CO <sub>2</sub> Capture. Industrial & Engineering Chemistry Research, 0, , .	1.8	2
44	The newly-assisted catalytic mechanism of surface hydroxyl species performed as the promoter in syngas-to-C2 species on the Cu-based bimetallic catalysts. Green Energy and Environment, 2023, 8, 487-498.	4.7	2
45	Evolution of Smâ€“Doped Fe <sub>2</sub> O <sub>3</sub> /CeO <sub>2</sub> Oxygen Carriers in Chemical Looping Hydrogen Generation. Energy Technology, 2021, 9, 2100535.	1.8	2
46	DE Algorithm Fuzzy Control of Super-Heated Steam Temperature. , 2016, , .		1
47	A new neuro-fuzzy approach for nonlinear system identification based on differential evolution. , 2012, , .		0
48	Dynamic Model Identification of the Super-Heated Steam Temperature for 300MW Circulating Fluidized Bed Boiler (CFBB). , 2015, , .		0