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List of Publications by Year
in descending order

82	5,067	40	69
papers	citations	h-index	g-index
		76326	91884

83	83	83	2810
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Chemical looping beyond combustion â€“ a perspective. Energy and Environmental Science, 2020, 13, 772-804.	30.8	325
2	Coke-resistant Ni@SiO2 catalyst for dry reforming of methane. Applied Catalysis B: Environmental, 2015, 176-177, 513-521.	20.2	242
3	Clean coal conversion processes â€“ progress and challenges. Energy and Environmental Science, 2008, 1, 248.	30.8	236
4	Recent Advances in Intensified Ethylene Productionâ€"A Review. ACS Catalysis, 2019, 9, 8592-8621.	11.2	227
5	Chemical Looping Technology and Its Fossil Energy Conversion Applications. Industrial & Engineering Chemistry Research, 2010, 49, 10200-10211.	3.7	181
6	Dynamic Methane Partial Oxidation Using a Fe₂O₃@La_{0.8}Sr_{0.2}FeO_{3-Î´} Coreâ€"Shell Redox Catalyst in the Absence of Gaseous Oxygen. ACS Catalysis, 2014, 4, 3560-3569.	11.2	163
7	Perovskites as Geo-inspired Oxygen Storage Materials for Chemical Looping and Three-Way Catalysis: A Perspective. ACS Catalysis, 2018, 8, 8213-8236.	11.2	152
8	Ionic diffusion in the oxidation of ironâ€"effect of support and its implications to chemical looping applications. Energy and Environmental Science, 2011, 4, 876.	30.8	140
9	Role of metal oxide support in redox reactions of iron oxide for chemical looping applications: experiments and density functional theory calculations. Energy and Environmental Science, 2011, 4, 3661.	30.8	138
10	Effect of support on redox stability of iron oxide for chemical looping conversion of methane. Applied Catalysis B: Environmental, 2015, 164, 371-379.	20.2	137
11	One-step synthesis of single-site vanadium substitution in 1T-WS2 monolayers for enhanced hydrogen evolution catalysis. Nature Communications, 2021, 12, 709.	12.8	137
12	Syngas chemical looping gasification process: Benchâ€scale studies and reactor simulations. AICHE Journal, 2010, 56, 2186-2199.	3.6	128
13	Iron Oxide with Facilitated O^{2â€"} Transport for Facile Fuel Oxidation and CO₂ Capture in a Chemical Looping Scheme. ACS Sustainable Chemistry and Engineering, 2013, 1, 364-373.	6.7	116
14	Coal-Direct Chemical Looping Gasification for Hydrogen Production: Reactor Modeling and Process Simulation. Energy & Fuels, 2012, 26, 3680-3690.	5.1	114
15	Fe₂O₃@La_{<i>x</i>}Sr_{1â^'<i>x</i>}FeO₃ Coreâ€"Shell Redox Catalyst for Methane Partial Oxidation. ChemCatChem, 2014, 6, 790-799.	3.7	108
16	Perovskite nanocomposites as effective CO ₂ -splitting agents in a cyclic redox scheme. Science Advances, 2017, 3, e1701184.	10.3	97
17	Ca1â^'A MnO3 (A = Sr and Ba) perovskite based oxygen carriers for chemical looping with oxygen uncoupling (CLOU). Applied Energy, 2015, 157, 358-367.	10.1	96
18	Effect of Promoters on Manganese-Containing Mixed Metal Oxides for Oxidative Dehydrogenation of Ethane via a Cyclic Redox Scheme. ACS Catalysis, 2017, 7, 5163-5173.	11.2	96

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19	Li-Promoted La_{<i>x</i>}Sr_{2â€“<i>x</i>}FeO_{4â^'Î´} Coreâ€“Shell Redox Catalysts for Oxidative Dehydrogenation of Ethane under a Cyclic Redox Scheme. ACS Catalysis, 2016, 6, 7293-7302.	11.2	95
20	Effect of core and shell compositions on MeO @La Sr1â^'FeO3 coreâ€“shell redox catalysts for chemical looping reforming of methane. Applied Energy, 2015, 157, 391-398.	10.1	94
21	Perovskite promoted iron oxide for hybrid water-splitting and syngas generation with exceptional conversion. Energy and Environmental Science, 2015, 8, 535-539.	30.8	89
22	Oxidative Dehydrogenation of Ethane: A Chemical Looping Approach. Energy Technology, 2016, 4, 1200-1208.	3.8	88
23	CaMn1â^'B O3â^' (B = Al, V, Fe, Co, and Ni) perovskite based oxygen carriers for chemical looping with oxygen uncoupling (CLOU). Applied Energy, 2016, 174, 80-87.	10.1	79
24	Methane partial oxidation using FeO_x@La_{0.8}Sr_{0.2}FeO_{3â^'Î´} coreâ€“shell catalyst â€“ transient pulse studies. Physical Chemistry Chemical Physics, 2015, 17, 31297-31307.	2.8	75
25	Alkali Metal-Promoted La_{<i>x</i>}Sr_{2â€“<i>x</i>}FeO_{4â^'Î´} Redox Catalysts for Chemical Looping Oxidative Dehydrogenation of Ethane. ACS Catalysis, 2018, 8, 1757-1766.	11.2	74
26	Investigation of perovskite supported composite oxides for chemical looping conversion of syngas. Fuel, 2014, 134, 521-530.	6.4	72
27	A hybrid solar-redox scheme for liquid fuel and hydrogen coproduction. Energy and Environmental Science, 2014, 7, 2033-2042.	30.8	65
28	Iron-containing mixed-oxide composites as oxygen carriers for Chemical Looping with Oxygen Uncoupling (CLOU). Fuel, 2015, 139, 1-10.	6.4	62
29	Oxidative dehydrogenation of ethane under a cyclic redox scheme â€“ Process simulations and analysis. Energy, 2017, 119, 1024-1035.	8.8	62
30	A molten carbonate shell modified perovskite redox catalyst for anaerobic oxidative dehydrogenation of ethane. Science Advances, 2020, 6, eaaz9339.	10.3	61
31	Manganese silicate based redox catalysts for greener ethylene production via chemical looping â€“ oxidative dehydrogenation of ethane. Applied Catalysis B: Environmental, 2018, 232, 77-85.	20.2	55
32	Perovskite-structured AMn_xB_{1â^'x}O₃ (A = Ca or Ba; B = Fe or Ni) redox catalysts for partial oxidation of methane. Catalysis Science and Technology, 2016, 6, 4535-4544.	4.1	54
33	Effects of Sodium and Tungsten Promoters on Mg₆MnO₈-Based Coreâ€“Shell Redox Catalysts for Chemical Loopingâ€"Oxidative Dehydrogenation of Ethane. ACS Catalysis, 2019, 9, 3174-3186.	11.2	52
34	Mixed iron-manganese oxides as redox catalysts for chemical loopingâ€“oxidative dehydrogenation of ethane with tailorable heat of reactions. Applied Catalysis B: Environmental, 2019, 257, 117885.	20.2	50
35	Rh-promoted mixed oxides for â€œlow-temperatureâ€•methane partial oxidation in the absence of gaseous oxidants. Journal of Materials Chemistry A, 2017, 5, 11930-11939.	10.3	50
36	Chemical looping at the nanoscale â€" challenges and opportunities. Current Opinion in Chemical Engineering, 2018, 20, 143-150.	7.8	49

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37	Aâ€•and Bâ€site Codoped SrFeO₃ Oxygen Sorbents for Enhanced Chemical Looping Air Separation. ChemSusChem, 2020, 13, 385-393.	6.8	49
38	Ironâ€Doped BaMnO₃ for Hybrid Water Splitting and Syngas Generation. ChemSusChem, 2017, 10, 3402-3408.	6.8	46
39	Intensification of Ethylene Production from Naphtha via a Redox Oxy-Cracking Scheme: Process Simulations and Analysis. Engineering, 2018, 4, 714-721.	6.7	43
40	Modified Ceria for â€œLowâ€Temperatureâ€• CO₂ Utilization: A Chemical Looping Route to Exploit Industrial Waste Heat. Advanced Energy Materials, 2019, 9, 1901963.	19.5	43
41	Perovskite oxides for redox oxidative cracking of n-hexane under a cyclic redox scheme. Applied Catalysis B: Environmental, 2019, 246, 30-40.	20.2	43
42	Substituted SrFeO₃ as robust oxygen sorbents for thermochemical air separation: correlating redox performance with compositional and structural properties. Physical Chemistry Chemical Physics, 2020, 22, 8924-8932.	2.8	43
43	Oxygen Vacancy Creation Energy in Mn-Containing Perovskites: An Effective Indicator for Chemical Looping with Oxygen Uncoupling. Chemistry of Materials, 2019, 31, 689-698.	6.7	41
44	Calcium cobaltate: a phase-change catalyst for stable hydrogen production from bio-glycerol. Energy and Environmental Science, 2018, 11, 660-668.	30.8	38
45	Intensified Ethylene Production via Chemical Looping through an Exergetically Efficient Redox Scheme. IScience, 2019, 19, 894-904.	4.1	38
46	A tailored multi-functional catalyst for ultra-efficient styrene production under a cyclic redox scheme. Nature Communications, 2021, 12, 1329.	12.8	35
47	High-throughput oxygen chemical potential engineering of perovskite oxides for chemical looping applications. Energy and Environmental Science, 2022, 15, 1512-1528.	30.8	35
48	Oxidative dehydrogenation of ethane using MoO3/Fe2O3 catalysts in a cyclic redox mode. Catalysis Today, 2018, 317, 50-55.	4.4	30
49	Perovskite Promoted Mixed Cobaltâ€“Iron Oxides for Enhanced Chemical Looping Air Separation. ACS Sustainable Chemistry and Engineering, 2018, 6, 15528-15540.	6.7	30
50	Chemical Looping Air Separation Using a Perovskite-Based Oxygen Sorbent: System Design and Process Analysis. ACS Sustainable Chemistry and Engineering, 2021, 9, 12185-12195.	6.7	28
51	Manganeseâ€containing redox catalysts for selective hydrogen combustion under a cyclic redox scheme. AICHE Journal, 2018, 64, 3141-3150.	3.6	27
52	Particulate Formation from a Copper Oxide-Based Oxygen Carrier in Chemical Looping Combustion for CO₂ Capture. Environmental Science & Technology, 2017, 51, 2482-2490.	10.0	26
53	Sodium tungstate-promoted CaMnO3 as an effective, phase-transition redox catalyst for redox oxidative cracking of cyclohexane. Journal of Catalysis, 2020, 385, 213-223.	6.2	26
54	Effect of Sodium Tungstate Promoter on the Reduction Kinetics of CaMn0.9Fe0.1O3 for Chemical Looping â€“ Oxidative Dehydrogenation of Ethane. Chemical Engineering Journal, 2020, 398, 125583.	12.7	23

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55	Net Electronic Charge as an Effective Electronic Descriptor for Oxygen Release and Transport Properties of SrFeO₃-Based Oxygen Sorbents. Chemistry of Materials, 2021, 33, 2446-2456.	6.7	22
56	MoO3/Al2O3 catalysts for chemical-looping oxidative dehydrogenation of ethane. Journal of Chemical Physics, 2020, 152, 044713.	3.0	21
57	Co and Mo Co-doped Fe₂O₃ for Selective Ethylene Production via Chemical Looping Oxidative Dehydrogenation. ACS Sustainable Chemistry and Engineering, 2021, 9, 8002-8011.	6.7	21
58	Mixed conductive composites for â€˜Low-Temperatureâ€™ thermo-chemical CO₂ splitting and syngas generation. Journal of Materials Chemistry A, 2020, 8, 13173-13182.	10.3	20
59	Ce stabilized Niâ€“SrO as a catalytic phase transition sorbent for integrated CO₂ capture and CH₄ reforming. Journal of Materials Chemistry A, 2022, 10, 3077-3085.	10.3	19
60	Sr_{1-x}Ca_xFe_{1-y}Co_yO_{3-Î´} as facile and tunable oxygen sorbents for chemical looping air separation. JPhys Energy, 2020, 2, 025007.	5.3	18
61	Selective catalytic oxidation of ammonia to nitric oxide via chemical looping. Nature Communications, 2022, 13, 718.	12.8	18
62	Zeolite-assisted core-shell redox catalysts for efficient light olefin production via cyclohexane redox oxidative cracking. Chemical Engineering Journal, 2021, 409, 128192.	12.7	17
63	Selective hydrogen combustion as an effective approach for intensified chemical production via the chemical looping strategy. Fuel Processing Technology, 2021, 218, 106827.	7.2	17
64	Continuous Synthesis of Monodisperse Yolkâ€“Shell Titania Microspheres. Chemistry of Materials, 2018, 30, 8948-8958.	6.7	16
65	Redox oxidative cracking of <i>n</i>-hexane with Fe-substituted barium hexaaluminates as redox catalysts. Catalysis Science and Technology, 2019, 9, 2211-2220.	4.1	14
66	LaNi_{<i>x</i>}Fe_{1â€“<i>x</i>}O_{3âˆ’Î´} as a Robust Redox Catalyst for CO₂ Splitting and Methane Partial Oxidation. Energy & Fuels, 2021, 35, 13921-13929.	5.1	14
67	Chemical looping air separation with Sr0.8Ca0.2Fe0.9Co0.1O3-Î´ perovskite sorbent: Packed bed modeling, verification, and optimization. Chemical Engineering Journal, 2022, 429, 132370.	12.7	14
68	Low temperature platinum atomic layer deposition on nylon-6 for highly conductive and catalytic fiber mats. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	2.1	13
69	Zeoliteâ€“Perovskite Composites as Effective Redox Catalysts for Autothermal Cracking of <i>n</i>-Hexane. ACS Sustainable Chemistry and Engineering, 2020, 8, 14268-14273.	6.7	13
70	Liquid Metal Shell as an Effective Iron Oxide Modifier for Redox-Based Hydrogen Production at Intermediate Temperatures. ACS Catalysis, 2021, 11, 10228-10238.	11.2	13
71	Ethane to liquids via a chemical looping approach â€“ Redox catalyst demonstration and process analysis. Chemical Engineering Journal, 2021, 417, 128886.	12.7	13
72	Methane Catalytic Pyrolysis by Microwave and Thermal Heating over Carbon Nanotube-Supported Catalysts: Productivity, Kinetics, and Energy Efficiency. Industrial & Engineering Chemistry Research, 2022, 61, 5080-5092.	3.7	13

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73	CO₂ Reforming of Ethanol: Density Functional Theory Calculations, Microkinetic Modeling, and Experimental Studies. ACS Catalysis, 2020, 10, 9624-9633.	11.2	12
74	Rh promoted perovskites for exceptional â€œlow temperatureâ€•methane conversion to syngas. Catalysis Today, 2020, 350, 149-155.	4.4	11
75	Modularâ€scale ethane to liquids via chemical looping oxidative dehydrogenation: Redox catalyst performance and process analysis. Journal of Advanced Manufacturing and Processing, 2019, 1, .	2.4	8
76	Autothermal Chemical Looping Oxidative Dehydrogenation of Ethane: Redox Catalyst Performance, Longevity, and Process Analysis. Energy & Fuels, 2022, 36, 9736-9744.	5.1	8
77	Reduction Kinetics of Perovskite Oxides for Selective Hydrogen Combustion in the Context of Olefin Production. Energy Technology, 2020, 8, 1900738.	3.8	7
78	Continuous flow synthesis of phase transition-resistant titania microparticles with tunable morphologies. RSC Advances, 2020, 10, 8340-8347.	3.6	7
79	Core-Shell Fe2O3@La1âˆ'xSrxFeO3âˆ'Î´ Material for Catalytic Oxidations: Coverage of Iron Oxide Core, Oxygen Storage Capacity and Reactivity of Surface Oxygens. Materials, 2021, 14, 7355.	2.9	7
80	Perovskite-Based Phase Transition Sorbents for Sorption-Enhanced Oxidative Steam Reforming of Glycerol. ACS Sustainable Chemistry and Engineering, 2022, 10, 6434-6445.	6.7	3
81	CaMn0.9Ti0.1O3 based redox catalysts for chemical looping â€“ Oxidative dehydrogenation of ethane: Effects of Na2MoO4 promoter and degree of reduction on the reaction kinetics. Catalysis Today, 2023, 417, 113725.	4.4	2
82	Flow Synthesis of Single and Mixed Metal Oxides. Chemistry Methods, 0, , .	3.8	1