Fanxing Li

List of Publications by Year
in descending order

108 papers	6,206 citations	57631 44 h-index	71532 76 g-index
119 all docs	119 docs citations	119 times ranked	3468 citing authors

#	Article	IF	Citations
1	Spinel oxides as coke-resistant supports for NiO-based oxygen carriers in chemical looping combustion of methane. Catalysis Today, 2023, 424, 112462.	2.2	9
2	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.	2.2	2
3	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.	6.6	14
4	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.	5.2	19
5	Selective catalytic oxidation of ammonia to nitric oxide via chemical looping. Nature Communications, 2022, 13, 718.	5.8	18
6	High-throughput oxygen chemical potential engineering of perovskite oxides for chemical looping applications. Energy and Environmental Science, 2022, 15, 1512-1528.	15.6	35
7	Sr2CeO4 as a robust high temperature sorbent for CO2 capture with near 100% sorbent conversion efficiency. Chemical Engineering Journal, 2022, 441, 135942.	6.6	7
8	Perovskite-Based Phase Transition Sorbents for Sorption-Enhanced Oxidative Steam Reforming of Glycerol. ACS Sustainable Chemistry and Engineering, 2022, 10, 6434-6445.	3.2	3
9	Autothermal Chemical Looping Oxidative Dehydrogenation of Ethane: Redox Catalyst Performance, Longevity, and Process Analysis. Energy & Fuels, 2022, 36, 9736-9744.	2.5	8
10	One-step synthesis of single-site vanadium substitution in 1T-WS2 monolayers for enhanced hydrogen evolution catalysis. Nature Communications, 2021, 12, 709.	5.8	137
11	A tailored multi-functional catalyst for ultra-efficient styrene production under a cyclic redox scheme. Nature Communications, 2021, 12, 1329.	5.8	35
12	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.	3.2	22
13	Zeolite-assisted core-shell redox catalysts for efficient light olefin production via cyclohexane redox oxidative cracking. Chemical Engineering Journal, 2021, 409, 128192.	6.6	17
14	Co and Mo Co-doped Fe₂O₃ for Selective Ethylene Production via Chemical Looping Oxidative Dehydrogenation. ACS Sustainable Chemistry and Engineering, 2021, 9, 8002-8011.	3.2	21
15	Molten-salt-mediated carbon dioxide capture and superequilibrium utilization with ethane oxidative dehydrogenation. Cell Reports Physical Science, 2021, 2, 100503.	2.8	9
16	Selective hydrogen combustion as an effective approach for intensified chemical production via the chemical looping strategy. Fuel Processing Technology, 2021, 218, 106827.	3.7	17
17	Liquid Metal Shell as an Effective Iron Oxide Modifier for Redox-Based Hydrogen Production at Intermediate Temperatures. ACS Catalysis, 2021, 11, 10228-10238.	5.5	13
18	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.	2.5	14

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19	Ethane to liquids via a chemical looping approach â€“ Redox catalyst demonstration and process analysis. Chemical Engineering Journal, 2021, 417, 128886.	6.6	13
20	Chemical Looping Air Separation Using a Perovskite-Based Oxygen Sorbent: System Design and Process Analysis. ACS Sustainable Chemistry and Engineering, 2021, 9, 12185-12195.	3.2	28
21	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.	1.3	7
22	Rh promoted perovskites for exceptional â€œlow temperatureâ€•methane conversion to syngas. Catalysis Today, 2020, 350, 149-155.	2.2	11
23	In-situ removal of toluene as a biomass tar model compound using NiFe2O4 for application in chemical looping gasification oxygen carrier. Energy, 2020, 190, 116360.	4.5	44
24	Reduction Kinetics of Perovskite Oxides for Selective Hydrogen Combustion in the Context of Olefin Production. Energy Technology, 2020, 8, 1900738.	1.8	7
25	Aâ€•and Bâ€•site Codoped SrFeO₃ Oxygen Sorbents for Enhanced Chemical Looping Air Separation. ChemSusChem, 2020, 13, 385-393.	3.6	49
26	Î³-Al2O3 sheet-stabilized isolate Co2+ for catalytic propane dehydrogenation. Journal of Catalysis, 2020, 381, 482-492.	3.1	98
27	CO₂ Reforming of Ethanol: Density Functional Theory Calculations, Microkinetic Modeling, and Experimental Studies. ACS Catalysis, 2020, 10, 9624-9633.	5.5	12
28	Highly efficient reduction of O2-containing CO2 via chemical looping based on perovskite nanocomposites. Nano Energy, 2020, 78, 105320.	8.2	32
29	Zeoliteâ€“Perovskite Composites as Effective Redox Catalysts for Autothermal Cracking of <i>n</i>-Hexane. ACS Sustainable Chemistry and Engineering, 2020, 8, 14268-14273.	3.2	13
30	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.	1.3	43
31	Mixed conductive composites for â€˜Low-Temperatureâ€™ thermo-chemical CO₂ splitting and syngas generation. Journal of Materials Chemistry A, 2020, 8, 13173-13182.	5.2	20
32	Chemical looping beyond combustion â€“ a perspective. Energy and Environmental Science, 2020, 13, 772-804.	15.6	325
33	MoO3/Al2O3 catalysts for chemical-looping oxidative dehydrogenation of ethane. Journal of Chemical Physics, 2020, 152, 044713.	1.2	21
34	A molten carbonate shell modified perovskite redox catalyst for anaerobic oxidative dehydrogenation of ethane. Science Advances, 2020, 6, eaaz9339.	4.7	61
35	Continuous flow synthesis of phase transition-resistant titania microparticles with tunable morphologies. RSC Advances, 2020, 10, 8340-8347.	1.7	7
36	Sodium tungstate-promoted CaMnO3 as an effective, phase-transition redox catalyst for redox oxidative cracking of cyclohexane. Journal of Catalysis, 2020, 385, 213-223.	3.1	26

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37	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.	2.3	18
38	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.	6.6	23
39	Recent Advances in Intensified Ethylene Productionâ€"A Review. ACS Catalysis, 2019, 9, 8592-8621.	5.5	227
40	Modified Ceria for â€œLowâ€Temperatureâ€•CO₂ Utilization: A Chemical Looping Route to Exploit Industrial Waste Heat. Advanced Energy Materials, 2019, 9, 1901963.	10.2	43
41	Intensified Ethylene Production via Chemical Looping through an Exergetically Efficient Redox Scheme. IScience, 2019, 19, 894-904.	1.9	38
42	Perovskite oxides for redox oxidative cracking of n-hexane under a cyclic redox scheme. Applied Catalysis B: Environmental, 2019, 246, 30-40.	10.8	43
43	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.	10.8	50
44	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.	5.5	52
45	Redox oxidative cracking of <i>n</i>-hexane with Fe-substituted barium hexaaluminates as redox catalysts. Catalysis Science and Technology, 2019, 9, 2211-2220.	2.1	14
46	Modularâ€scale ethane to liquids via chemical looping oxidative dehydrogenation: Redox catalyst performance and process analysis. Journal of Advanced Manufacturing and Processing, 2019, 1, .	1.4	8
47	Oxygen Vacancy Creation Energy in Mn-Containing Perovskites: An Effective Indicator for Chemical Looping with Oxygen Uncoupling. Chemistry of Materials, 2019, 31, 689-698.	3.2	41
48	Dynamic three-dimensional shape measurement based on light field imaging. , 2019, , .		0
49	Lensless in-line holographic microscope resolution enhancement method from two intensity measurements based on data interpolation. , 2019, , .		1
50	Double-beam laser interference lithography based on optical field modulation. , 2019, , .		0
51	Oxidative dehydrogenation of ethane using MoO3/Fe2O3 catalysts in a cyclic redox mode. Catalysis Today, 2018, 317, 50-55.	2.2	30
52	Manganeseâ€containing redox catalysts for selective hydrogen combustion under a cyclic redox scheme. AIChE Journal, 2018, 64, 3141-3150.	1.8	27
53	Calcium cobaltate: a phase-change catalyst for stable hydrogen production from bio-glycerol. Energy and Environmental Science, 2018, 11, 660-668.	15.6	38
54	Alkali Metal-Promoted La_{<i>x</i>}Sr_{2â€“<i>x</i>}FeO_{4âˆ'Î´} Redox Catalysts for Chemical Looping Oxidative Dehydrogenation of Ethane. ACS Catalysis, 2018, 8, 1757-1766.	5.5	74

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55	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.	10.8	55
56	Continuous Synthesis of Monodisperse Yolkâ€“Shell Titania Microspheres. Chemistry of Materials, 2018, 30, 8948-8958.	3.2	16
57	Perovskite Promoted Mixed Cobaltâ€“Iron Oxides for Enhanced Chemical Looping Air Separation. ACS Sustainable Chemistry and Engineering, 2018, 6, 15528-15540.	3.2	30
58	Perovskites as Geo-inspired Oxygen Storage Materials for Chemical Looping and Three-Way Catalysis: A Perspective. ACS Catalysis, 2018, 8, 8213-8236.	5.5	152
59	Intensification of Ethylene Production from Naphtha via a Redox Oxy-Cracking Scheme: Process Simulations and Analysis. Engineering, 2018, 4, 714-721.	3.2	43
60	Chemical looping at the nanoscale â€” challenges and opportunities. Current Opinion in Chemical Engineering, 2018, 20, 143-150.	3.8	49
61	Particulate Formation from a Copper Oxide-Based Oxygen Carrier in Chemical Looping Combustion for CO₂ Capture. Environmental Science & Technology, 2017, 51, 2482-2490.	4.6	26
62	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.	5.5	96
63	Oxidative dehydrogenation of ethane under a cyclic redox scheme â€“ Process simulations and analysis. Energy, 2017, 119, 1024-1035.	4.5	62
64	Perovskite nanocomposites as effective CO ₂ -splitting agents in a cyclic redox scheme. Science Advances, 2017, 3, e1701184.	4.7	97
65	Ironâ€Ðoped BaMnO₃ for Hybrid Water Splitting and Syngas Generation. ChemSusChem, 2017, 10, 3402-3408.	3.6	46
66	High efficiency and flexible working distance digital in-line holographic microscopy based on Fresnel zone plate. Measurement Science and Technology, 2017, 28, 055209.	1.4	4
67	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.	5.2	50
68	Oxidative Dehydrogenation of Ethane: A Chemical Looping Approach. Energy Technology, 2016, 4, 1200-1208.	1.8	88
69	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, .	0.9	13
70	Positioning control system of three-dimensional wafer stage of lithography. , 2016, , .		0
71	Li-Promoted La_{<i>x</i>}Sr_{2â€“<i>x</i>}FeO_{4âˆ’Î´} Coreâ€“Shell Redox Catalysts for Oxidative Dehydrogenation of Ethane under a Cyclic Redox Scheme. ACS Catalysis, 2016, 6, 7293-7302.	5.5	95
72	CaMn1âˆ’B O3âˆ’ (B = Al, V, Fe, Co, and Ni) perovskite based oxygen carriers for chemical looping with oxygen uncoupling (CLOU). Applied Energy, 2016, 174, 80-87.	5.1	79

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73	Controller hardware-in-loop testbed setup for multi-objective optimization based tuning of inverter controller parameters in a microgrid setting. , 2016, , .		3
74	Perovskite-structured AMn_xB_{1âˆ’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.	2.1	54
75	Methane partial oxidation using FeO_x@La_{0.8}Sr_{0.2}FeO_{3âˆ’Î´} coreâ€“shell catalyst â€“ transient pulse studies. Physical Chemistry Chemical Physics, 2015, 17, 31297-31307.	1.3	75
76	Ca1âˆ’A MnO3 (A = Sr and Ba) perovskite based oxygen carriers for chemical looping with oxygen uncoupling (CLOU). Applied Energy, 2015, 157, 358-367.	5.1	96
77	Effect of core and shell compositions on MeO @La Sr1âˆ’FeO3 coreâ€“shell redox catalysts for chemical looping reforming of methane. Applied Energy, 2015, 157, 391-398.	5.1	94
78	Coke-resistant Ni@SiO2 catalyst for dry reforming of methane. Applied Catalysis B: Environmental, 2015, 176-177, 513-521.	10.8	242
79	Perovskite promoted iron oxide for hybrid water-splitting and syngas generation with exceptional conversion. Energy and Environmental Science, 2015, 8, 535-539.	15.6	89
80	Iron-containing mixed-oxide composites as oxygen carriers for Chemical Looping with Oxygen Uncoupling (CLOU). Fuel, 2015, 139, 1-10.	3.4	62
81	Effect of support on redox stability of iron oxide for chemical looping conversion of methane. Applied Catalysis B: Environmental, 2015, 164, 371-379.	10.8	137
82	Effects of bubbleâ€“liquid twoâ€‘phase turbulent hydrodynamics on cell damage in sparged bioreactor. Biotechnology Progress, 2014, 30, 48-58.	1.3	27
83	Municipal solid waste conversion to transportation fuels: a life-cycle estimation of global warming potential and energy consumption. Journal of Cleaner Production, 2014, 70, 145-153.	4.6	49
84	A hybrid solar-redox scheme for liquid fuel and hydrogen coproduction. Energy and Environmental Science, 2014, 7, 2033-2042.	15.6	65
85	Fe₂O₃@La_{<i>x</i>}Sr_{1âˆ’<i>x</i>}FeO₃ Coreâ€“Shell Redox Catalyst for Methane Partial Oxidation. ChemCatChem, 2014, 6, 790-799.	1.8	108
86	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.	5.5	163
87	Hydrogen production from methane and solar energy â€“ Process evaluations and comparison studies. International Journal of Hydrogen Energy, 2014, 39, 18092-18102.	3.8	32
88	Investigation of perovskite supported composite oxides for chemical looping conversion of syngas. Fuel, 2014, 134, 521-530.	3.4	72
89	Preface to Special Issue - CO2 Capture, Sequestration, Conversion and Utilization. Aerosol and Air Quality Research, 2014, 14, 451-452.	0.9	2
90	Chemical looping gasification of solid fuels using bimetallic oxygen carrier particles â€“ Feasibility assessment and process simulations. International Journal of Hydrogen Energy, 2013, 38, 7839-7854.	3.8	46

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91	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.	3.2	116
92	Coal-Direct Chemical Looping Gasification for Hydrogen Production: Reactor Modeling and Process Simulation. Energy & Fuels, 2012, 26, 3680-3690.	2.5	114
93	Syngas Chemical Looping Process: Design and Construction of a 25 kW_{th} Subpilot Unit. Energy & Fuels, 2012, 26, 2292-2302.	2.5	88
94	Experimental Study of HCl Capture Using CaO Sorbents: Activation, Deactivation, Reactivation, and Ionic Transfer Mechanism. Industrial & Engineering Chemistry Research, 2011, 50, 6034-6043.	1.8	40
95	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.	15.6	138
96	Ionic diffusion in the oxidation of ironâ€"effect of support and its implications to chemical looping applications. Energy and Environmental Science, 2011, 4, 876.	15.6	140
97	Syngas chemical looping gasification process: Benchâ€scale studies and reactor simulations. AIChE Journal, 2010, 56, 2186-2199.	1.8	128
98	Biomass direct chemical looping process: Process simulation. Fuel, 2010, 89, 3773-3784.	3.4	131
99	Chemical Looping Technology and Its Fossil Energy Conversion Applications. Industrial & Engineering Chemistry Research, 2010, 49, 10200-10211.	1.8	181
100	Techno-Economic Analysis of Coal-Based Hydrogen and Electricity Cogeneration Processes with CO₂ Capture. Industrial & Engineering Chemistry Research, 2010, 49, 11018-11028.	1.8	28
101	Syngas Chemical Looping Gasification Process: Oxygen Carrier Particle Selection and Performance. Energy & Fuels, 2009, 23, 4182-4189.	2.5	196
102	Utilization of chemical looping strategy in coal gasification processes. Particuology, 2008, 6, 131-142.	2.0	167
103	Clean coal conversion processes â€“ progress and challenges. Energy and Environmental Science, 2008, 1, 248.	15.6	236
104	Clean coal. Physics World, 2007, 20, 37-41.	0.0	5
105	Characterization of single-wall carbon nanotubes by N2 adsorption. Carbon, 2004, 42, 2375-2383.	5.4	107
106	Diffusion limitation in fast transient experiments. Chemical Engineering Science, 2004, 59, 5615-5622.	1.9	6
107	Comparison of microkinetics and Langmuir-Hinshelwood models of the partial oxidation of methane to synthesis gas. Studies in Surface Science and Catalysis, 2004, , 235-240.	1.5	0
108	Flow Synthesis of Single and Mixed Metal Oxides. Chemistry Methods, 0, , .	1.8	1