# Kun Zhao

List of Publications by Year
in descending order



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|---|---|---|---|
| 53 papers | 2,842 citations | 147566 31 h-index | 174990 52 g-index |
| 53 all docs | 53 docs citations | 53 times ranked | 1608 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Perovskite-type oxides LaFe1â^'Co O3 for chemical looping steam methane reforming to syngas and hydrogen co-production. Applied Energy, 2016, 168, 193-203. | 5.1 | 197 |
| 2 | The use of La1â^'xSrxFeO3 perovskite-type oxides as oxygen carriers in chemical-looping reforming of methane. Fuel, 2013, 108, 465-473. | 3.4 | 155 |
| 3 | Impact of Torrefaction on the Chemical Structure and Catalytic Fast Pyrolysis Behavior of Hemicellulose, Lignin, and Cellulose. Energy & Fuels, 2015, 29, 8027-8034. | 2.5 | 135 |
| 4 | Three-dimensionally ordered macroporous LaFeO3 perovskites for chemical-looping steam reforming of methane. International Journal of Hydrogen Energy, 2014, 39, 3243-3252. | 3.8 | 121 |
| 5 | Synthesis gas production through biomass direct chemical looping conversion with natural hematite as an oxygen carrier. Bioresource Technology, 2013, 140, 138-145. | 4.8 | 118 |
| 6 | Biomass Char Direct Chemical Looping Gasification Using NiO-Modified Iron Ore as an Oxygen Carrier. Energy & Fuels, 2014, 28, 183-191. | 2.5 | 118 |
| 7 | Chemical looping gasification of biomass char using iron ore as an oxygen carrier. International Journal of Hydrogen Energy, 2016, 41, 17871-17883. | 3.8 | 116 |
| 8 | Exploration of the mechanism of chemical looping steam methane reforming using double perovskite-type oxides La1.6Sr0.4FeCoO6. Applied Catalysis B: Environmental, 2017, 219, 672-682. | 10.8 | 105 |
| 9 | Performance of Feâ€“Ni bimetallic oxygen carriers for chemical looping gasification of biomass in a 10ÂkWth interconnected circulating fluidized bed reactor. International Journal of Hydrogen Energy, 2015, 40, 16021-16032. | 3.8 | 96 |
| 10 | Synergistic improvements in stability and performance of the double perovskite-type oxides La2â^'xSrxFeCoO6 for chemical looping steam methane reforming. Applied Energy, 2017, 197, 393-404. | 5.1 | 88 |
| 11 | Identifying the roles of MFe2O4 (M=Cu, Ba, Ni, and Co) in the chemical looping reforming of char, pyrolysis gas and tar resulting from biomass pyrolysis. International Journal of Hydrogen Energy, 2019, 44, 4674-4687. | 3.8 | 87 |
| 12 | Comparative study on phenol and naphthalene steam reforming over Ni-Fe alloy catalysts supported on olivine synthesized by different methods. Energy Conversion and Management, 2018, 168, 60-73. | 4.4 | 85 |
| 13 | Thermodynamic analysis and kinetic investigations on biomass char chemical looping gasification using Fe-Ni bimetallic oxygen carrier. Energy, 2017, 141, 1836-1844. | 4.5 | 75 |
| 14 | Minimizing tar formation whilst enhancing syngas production by integrating biomass torrefaction pretreatment with chemical looping gasification. Applied Energy, 2020, 260, 114315. | 5.1 | 75 |
| 15 | Biomass chemical-looping gasification coupled with water/CO2-splitting using NiFe2O4 as an oxygen carrier. Energy Conversion and Management, 2019, 201, 112157. | 4.4 | 70 |
| 16 | Continuous Operation of a 10 kW<sub>th</sub> Chemical Looping Integrated Fluidized Bed Reactor for Gasifying Biomass Using an Iron-Based Oxygen Carrier. Energy & Fuels, 2015, 29, 233-241. | 2.5 | 68 |
| 17 | Exploration of Reaction Mechanisms on Hydrogen Production through Chemical Looping Steam Reforming Using NiFe<sub>2</sub>O<sub>4</sub> Oxygen Carrier. ACS Sustainable Chemistry and Engineering, 2019, 7, 11621-11632. | 3.2 | 68 |
| 18 | Exploring the migration and transformation of lattice oxygen during chemical looping with NiFe2O4 oxygen carrier. Chemical Engineering Journal, 2022, 429, 132064. | 6.6 | 63 |

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|---|---|---|---|
| 19 | La1-xSrxFeO3 perovskite-type oxides for chemical-looping steam methane reforming: Identification of the surface elements and redox cyclic performance. International Journal of Hydrogen Energy, 2019, 44, 10265-10276. | 3.8 | 61 |
| 20 | A molten carbonate shell modified perovskite redox catalyst for anaerobic oxidative dehydrogenation of ethane. Science Advances, 2020, 6, eaaz9339. | 4.7 | 61 |
| 21 | Synthesis of three-dimensionally ordered macroporous LaFeO3 perovskites and their performance for chemical-looping reforming of methane. Chinese Journal of Catalysis, 2013, 34, 1242-1249. | 6.9 | 57 |
| 22 | Reducing emission of NOx and SOx precursors while enhancing char production from pyrolysis of sewage sludge by torrefaction pretreatment. Energy, 2020, 192, 116620. | 4.5 | 53 |
| 23 | La1-xSrxFeO3 perovskites as oxygen carriers for the partial oxidation of methane to syngas. Chinese Journal of Catalysis, 2014, 35, 1196-1205. | 6.9 | 49 |
| 24 | Synthesis gas production from chemical looping gasification of lignite by using hematite as oxygen carrier. Energy Conversion and Management, 2019, 185, 774-782. | 4.4 | 47 |
| 25 | Reaction schemes of barium ferrite in biomass chemical looping gasification for hydrogen-enriched syngas generation via an outer-inner looping redox reaction mechanism. Energy Conversion and Management, 2019, 189, 81-90. | 4.4 | 45 |
| 26 | 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 |
| 27 | Different oxidation routes for lattice oxygen recovery of double-perovskite type oxides LaSrFeCoO 6 as oxygen carriers for chemical looping steam methane reforming. Journal of Energy Chemistry, 2017, 26, 501-509. | 7.1 | 40 |
| 28 | Enhanced Chemical looping oxidative coupling of methane by Na-doped LaMnO3 redox catalysts. Fuel, 2021, 299, 120932. | 3.4 | 39 |
| 29 | Chemical looping reforming of biomass based pyrolysis gas coupling with chemical looping hydrogen by using Fe/Ni/Al oxygen carriers derived from LDH precursors. Energy Conversion and Management, 2019, 179, 304-313. | 4.4 | 38 |
| 30 | Perovskite-type LaFe1â^' x Mn x O3 (x=0, 0.3, 0.5, 0.7, 1.0) oxygen carriers for chemical-looping steam methane reforming: Oxidation activity and resistance to carbon formation. Korean Journal of Chemical Engineering, 2017, 34, 1651-1660. | 1.2 | 37 |
| 31 | Effects of catalyst preparation parameters and reaction operating conditions on the activity and stability of thermally fused Fe-olivine catalyst in the steam reforming of toluene. International Journal of Hydrogen Energy, 2018, 43, 127-138. | 3.8 | 34 |
| 32 | Hydrogen production from vegetable oil via a chemical looping process with hematite oxygen carriers. Journal of Cleaner Production, 2018, 200, 588-597. | 4.6 | 34 |
| 33 | Preparation of double perovskite-type oxide LaSrFeCoO6 for chemical looping steam methane reforming to produce syngas and hydrogen. Journal of Rare Earths, 2016, 34, 1032-1041. | 2.5 | 33 |
| 34 | Effects of Co-substitution on the reactivity of double perovskite oxides LaSrFe2-xCoxO6 for the chemical-looping steam methane reforming. Journal of the Energy Institute, 2019, 92, 594-603. | 2.7 | 30 |
| 35 | The structure-reactivity relationships of using three-dimensionally ordered macroporous LaFe1â^'xNixO3 perovskites for chemical-looping steam methane reforming. Journal of the Energy Institute, 2019, 92, 239-246. | 2.7 | 30 |
| 36 | Alkali-metal enhanced LaMnO3 perovskite oxides for chemical looping oxidative dehydrogenation of ethane. Applied Catalysis A: General, 2021, 609, 117910. | 2.2 | 29 |

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|---|---|---|---|
| 37 | The role of CuO modified La0Â·7Sr0Â·3FeO3 perovskite on intermediate-temperature partial oxidation of methane via chemical looping scheme. International Journal of Hydrogen Energy, 2020, 45, 4073-4083. | 3.8 | 28 |
| 38 | Experimental Investigation of Feâ€“Niâ€“Al Oxygen Carrier Derived from Hydrotalcite-like Precursors for the Chemical Looping Gasification of Biomass Char. Energy & Fuels, 2017, 31, 5174-5182. | 2.5 | 25 |
| 39 | Reaction performance of Ce-enhanced hematite oxygen carrier in chemical looping reforming of biomass pyrolyzed gas coupled with CO2 splitting. Energy, 2021, 215, 119044. | 4.5 | 24 |
| 40 | Enhanced hydrogen-rich syngas generation in chemical looping methane reforming using an interstitial doped La1.6Sr0.4FeCoO6. International Journal of Hydrogen Energy, 2019, 44, 10250-10264. | 3.8 | 23 |
| 41 | Long-term coal chemical looping gasification using a bimetallic oxygen carrier of natural hematite and copper ore. Fuel, 2022, 309, 122106. | 3.4 | 19 |
| 42 | Effect of microwave-assisted organosolv fractionation on the chemical structure and decoupling pyrolysis behaviors of waste biomass. Journal of Analytical and Applied Pyrolysis, 2018, 131, 120-127. | 2.6 | 15 |
| 43 | Performance evaluation of hematite oxygen carriers in high purity hydrogen generation from cooking oil by chemical looping reaction. International Journal of Hydrogen Energy, 2018, 43, 20500-20512. | 3.8 | 15 |
| 44 | Mg-doped La1.6Sr0.4FeCoO6 for anaerobic oxidative dehydrogenation of ethane using surface-absorbed oxygen with tuned electronic structure. Fuel Processing Technology, 2021, 216, 106771. | 3.7 | 14 |
| 45 | Investigation of the relationship between electronic properties and reactivity of 3DOM LaFe <sub> 1 â’ x </sub> Co <sub> x </sub> O <sub>3</sub> for methane reforming to produce syngas. International Journal of Energy Research, 2019, 43, 7120. | 2.2 | 13 |
| 46 | Reactivity investigation on chemical looping gasification of coal with Iron-Manganese based oxygen carrier. Fuel, 2022, 307, 121772. | 3.4 | 13 |
| 47 | Selective sequential fractionation of biomass for quantitatively elucidating the compositional factors affecting biomass fast pyrolysis. Journal of Analytical and Applied Pyrolysis, 2021, 156, 105106. | 2.6 | 12 |
| 48 | Co-production of syngas and H2 from chemical looping steam reforming of methane over anti-coking CeO2/La0.9Sr0.1Fe1â’xNixO3 composite oxides. Fuel, 2022, 317, 123455. | 3.4 | 10 |
| 49 | Synthesis of three-dimensionally ordered macroporous LaFe0.7Co0.3O3 perovskites and their performance for chemical-looping steam reforming of methane. Journal of Fuel Chemistry and Technology, 2016, 44, 1168-1176. | 0.9 | 8 |
| 50 | CaO/MgO modified perovskite type oxides for chemical-looping steam reforming of methane. Journal of Fuel Chemistry and Technology, 2016, 44, 680-688. | 0.9 | 8 |
| 51 | Syngas production from lignite via chemical looping gasification with hematite oxygen carrier enhanced by exogenous metals. Fuel, 2022, 321, 124119. | 3.4 | 8 |
| 52 | Fast Pyrolysis of Nitrogen-Rich Wood Waste Pretreated by Microwave-Assisted Glycerolysis. Waste and Biomass Valorization, 2017, 8, 349-358. | 1.8 | 3 |
| 53 | Towards directional pyrolysis of xylan: Understanding the roles of alkali/alkaline earth metals and pyrolysis temperature. Energy, 2022, 254, 124245. | 4.5 | 3 |