Quan Zhu

List of Publications by Year
in descending order

73 papers	936 citations	430874 18 h-index	580821 25 g-index
73 all docs	73 docs citations	73 times ranked	621 citing authors

#	Article	IF	Citations
1	Mixed Phenolic Acids Mediated Proliferation of Pathogens Talaromyces helicus and Kosakonia sacchari in Continuously Monocultured Radix pseudostellariae Rhizosphere Soil. Frontiers in Microbiology, 2016, 7, 335.	3.5	66
2	Characterization of CVD TiN coating at different deposition temperatures and its application in hydrocarbon pyrolysis. Surface and Coatings Technology, 2014, 258, 1060-1067.	4.8	40
3	Catalytic cracking of RP-3 jet fuel over wall-coated Pt/ZrO2â€“TiO2â€“Al2O3 catalysts with different Al2O3 ratios. Journal of Analytical and Applied Pyrolysis, 2015, 111, 100-107.	5.5	37
4	Energy absorption and reaction mechanism for thermal pyrolysis of n-decane under supercritical pressure. Applied Thermal Engineering, 2017, 112, 403-412.	6.0	37
5	Inhibition Effect of APCVD Titanium Nitride Coating on Coke Growth during n-Hexane Thermal Cracking under Supercritical Conditions. Industrial & Engineering Chemistry Research, 2014, 53, 5432-5442.	3.7	36
6	Preparation of Rutile TiO₂ Coating by Thermal Chemical Vapor Deposition for Anticoking Applications. ACS Applied Materials & Interfaces, 2014, 6, 17157-17165.	8.0	34
7	Correlation between structure, acidity and activity of Mo-promoted Pt/ZrO2-TiO2-Al2O3 catalysts for n-decane catalytic cracking. Applied Thermal Engineering, 2017, 111, 811-818.	6.0	32
8	Kerosene cracking over supported monolithic Pt catalysts: Effects of SrO and BaO promoters. Chinese Journal of Catalysis, 2013, 34, 1139-1147.	14.0	27
9	Experimental and modeling study of thermal and catalytic cracking of n-decane. Journal of Analytical and Applied Pyrolysis, 2014, 110, 463-469.	5.5	27
10	Performance of Pt/ZrO2â€“TiO2â€“Al2O3 and coke deposition during methylcyclohexane catalytic cracking. Fuel, 2017, 200, 387-394.	6.4	26
11	Flexible hybrid yarn-shaped supercapacitors based on porous nickel cobalt sulfide nanosheet array layers on gold metalized cotton yarns. Journal of Colloid and Interface Science, 2018, 532, 527-535.	9.4	25
12	Catalytic Cracking of RP-3 Jet Fuel over Pt/CeO₂â€“Al₂O₃ by Adding Cu/ZSM-5. Energy & Fuels, 2014, 28, 5382-5388.	5.1	23
13	Performance of RP-3 kerosene cracking over Pt/WO3â€“ZrO2 catalyst. Journal of Analytical and Applied Pyrolysis, 2015, 113, 736-742.	5.5	23
14	Flow distribution of hydrocarbon fuel in parallel minichannels heat exchanger. AICHE Journal, 2018, 64, 2781-2791.	3.6	22
15	High catalytic activity and stability quasi homogeneous alkali metal promoted Ni/SiO2 aerogel catalysts for catalytic cracking of n-decane. Fuel, 2020, 268, 117384.	6.4	22
16	Soot formation of n-decane pyrolysis: A mechanistic view from ReaxFF molecular dynamics simulation. Chemical Physics Letters, 2020, 760, 137983.	2.6	21
17	Characterization of MOCVD TiO2 coating and its anti-coking application in cyclohexane pyrolysis. Surface and Coatings Technology, 2016, 296, 108-116.	4.8	20
18	Experimental and numerical analysis on flow characteristics and pyrolysis mechanism of hydrocarbon fuel with a novel online hybrid method. Energy Conversion and Management, 2019, 198, 111817.	9.2	20

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19	Oxidation behavior of CVD star-shaped TiN coating in ambient air. Ceramics International, 2015, 41, 9549-9554.	4.8	19
20	Catalytic Cracking of n-Decane over Monometallic and Bimetallic Ptâ€“Ni/MoO₃/Laâ€“Al₂O₃ Catalysts: Correlations of Surface Properties and Catalytic Behaviors. Industrial & Engineering Chemistry Research, 2019, 58, 1823-1833.	3.7	18
21	Role of acidity in catalytic cracking of n-decane over supported Pt-based catalysts. Applied Surface Science, 2020, 507, 145113.	6.1	18
22	Influence of TiN coating on products distribution for hydrocarbon fuel cracking under high temperature and pressure. Journal of Analytical and Applied Pyrolysis, 2014, 107, 197-203.	5.5	17
23	Preparation of Al2O3 coating on TiN coating by polymer-assisted deposition to improve oxidation resistance in coking inhibition applications. Ceramics International, 2020, 46, 7774-7782.	4.8	17
24	A control method for flow distribution in fuel-cooled plate based on choked flow effect. Applied Thermal Engineering, 2018, 142, 127-137.	6.0	14
25	Thermal cracking characteristics of n-decane in the rectangular and circular tubes. Chinese Journal of Chemical Engineering, 2019, 27, 2876-2883.	3.5	14
26	Investigation on Carburization during the Repeated Coking and Decoking Process. Industrial & Engineering Chemistry Research, 2020, 59, 13051-13059.	3.7	14
27	Analysis of the effect of pyrolytic coking on the flow and heat transfer performance of n-decane in cooling channels at supercritical pressure. International Journal of Heat and Mass Transfer, 2022, 195, 123147.	4.8	13
28	Mo-promoted catalysts for supercritical n-decane cracking. Applied Thermal Engineering, 2016, 102, 1238-1240.	6.0	12
29	The performance of Rh/SiO2-Al2O3 catalysts in methycyclohexane cracking reaction. Journal of Analytical and Applied Pyrolysis, 2017, 124, 475-485.	5.5	12
30	Effect of alkyl substituent for cyclohexane on pyrolysis towards sooting tendency from theoretical principle. Journal of Analytical and Applied Pyrolysis, 2022, 161, 105386.	5.5	12
31	Continuous medium theory for nonequilibrium solvation: III. Solvation shift by monopole approximation and multipole expansion in spherical cavity. Journal of Computational Chemistry, 2005, 26, 399-409.	3.3	11
32	Oxide film prepared by selective oxidation of stainless steel and anti-coking behavior during n-hexane thermal cracking. Surface and Coatings Technology, 2019, 378, 124952.	4.8	11
33	A Comprehensive Investigation of the Pyrolysis Effect on Heat Transfer Characteristics for n-Decane in the Horizon Mini-Channel. Energy & Fuels, 2020, 34, 199-210.	5.1	11
34	Multi-objective optimization of the cooling performance of a mini-channel with boot-shaped ribs in transcritical regions using RSM and MOGA. Numerical Heat Transfer; Part A: Applications, 2020, 78, 737-755.	2.1	11
35	The performance of Pt/ZrxTixAl1â€“2xO2 as Kerosene cracking catalysts. Chinese Journal of Catalysis, 2014, 35, 175-184.	14.0	10
36	Heat-Sink Enhancement of Supercritical Methylcyclohexane Cracking over Lanthanum-Modified Beta Zeolite. Journal of Propulsion and Power, 2016, 32, 801-809.	2.2	10

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37	An experimental and numerical investigation on thermal cracking of n-decane in the microchannel. Petroleum Science and Technology, 2016, 34, 555-561.	1.5	10
38	Combined strategy and Ni NPs/SiO2 aerogel catalyst for cracking hydrocarbon fuels. Journal of Power Sources, 2021, 506, 230172.	7.8	10
39	NEW FORMULATION FOR NON-EQUILIBRIUM SOLVATION: SPECTRAL SHIFTS AND CAVITY RADII OF 6-PROPANOYL-2-(N,N-DIMETHYLAMINO) NAPHTHALENE AND 4-(N,N-DIMETHYLAMINO) BENZONITRILE. Journal of Theoretical and Computational Chemistry, 2006, 05, 355-374.	1.8	9
40	High-Pressure-Limit and Pressure-Dependent Rate Rules for Unimolecular Reactions Related to Hydroperoxy Alkyl Radicals in Normal Alkyl Cyclohexane Combustion. 1. Concerted HO2 Elimination Reaction Class and Î²-Scission Reaction Class. Journal of Physical Chemistry A, 2021, 125, 8942-8958.	2.5	9
41	TiN-SiO2 double layer composite coating with enhanced oxidation resistance and reusability in anti-coking applications. Fuel, 2022, 324, 124808.	6.4	9
42	Anti-coking application of TiO₂-Al₂O₃ composite coating prepared by MOCVD. Transactions of the Institute of Metal Finishing, 2020, 98, 37-41.	1.3	8
43	High-Pressure-Limit and Pressure-Dependent Rate Rules for Unimolecular Reactions Related to Hydroperoxy Alkyl Radicals in Normal-Alkyl Cyclohexane Combustion. 2. Cyclization Reaction Class. Journal of Physical Chemistry A, 2021, 125, 8959-8977.	2.5	8
44	Ab initio study of hydrogen bonding interaction and photoinduced electron transfer between 4-nitroquinoline-1-oxide and tryptophan. International Journal of Quantum Chemistry, 2004, 98, 33-43.	2.0	7
45	Stimulation of contractions in pregnant human myometrium is associated with 5-HT3 receptors. International Journal of Obstetric Anesthesia, 2016, 28, 28-33.	0.4	7
46	Novel measurement of isobaric specific heat capacity for kerosene RP-3 at high temperature and high pressure. Thermochimica Acta, 2016, 638, 113-119.	2.7	7
47	An experimental and simulated investigation on pyrolysis of blended cyclohexane and benzene under supercritical pressure. Petroleum Chemistry, 2017, 57, 71-78.	1.4	7
48	The copper-catalyzed cross-coupling reactions of aryl diazonium salts and isocyanides. Russian Journal of General Chemistry, 2016, 86, 668-671.	0.8	6
49	Relationship between Energetic Performance and Clustering Effects on Incremental Nitramine Groups: A Theoretical Perspective. Journal of Physical Chemistry A, 2019, 123, 742-749.	2.5	6
50	Theoretical Investigations for Kinetics of the Chemical Reactions: H + SiCl_x (x = 1, 2, 3). Journal of Physical Chemistry A, 2022, 126, 1689-1700.	2.5	6
51	Vertical ionization energies of halogen anions in solution. Science China Chemistry, 2010, 53, 1316-1321.	8.2	5
52	Investigation on the Thermal Cracking of n -Decane under Supercritical Pressure by a Developed Online-Sampling Experimental Method. Petroleum Chemistry, 2020, 60, 39-44.	1.4	5
53	Effects of geometric parameters of rectangular cooling channel on pyrolysis carbon deposition in fuelâ€cooled plates. Canadian Journal of Chemical Engineering, 0, , .	1.7	5
54	Nonequilibrium solvation theory: Comparison, modification and application. Science Bulletin, 2003, 48, 965-970.	1.7	4

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55	Cracking Performance of Supercritical n-Decane with Mo-promoted Pt/CeO₂-Al₂O₃Catalysts. Petroleum Science and Technology, 2015, 33, 622-628.	1.5	4
56	Investigations on the thermal cracking and pyrolysis mechanism of China No.3 aviation kerosene under supercritical conditions. Petroleum Science and Technology, 2018, 36, 1396-1404.	1.5	4
57	NiOâ€“MoO₃ promoted Pt/ZrO₂â€“TiO₂â€“Al₂O₃ catalyst with excellent cracking performance of n-decane. Petroleum Science and Technology, 2020, 38, 595-601.	1.5	4
58	Effects of Dissolved Oxygen Concentration on Supercritical Thermal Oxidation Coking of RP-3 Aviation Kerosene. Petroleum Chemistry, 2021, 61, 1296-1304.	1.4	4
59	Explicit solvent model for spectral shift of acrolein and simulation with molecular dynamics. Science Bulletin, 2006, 51, 2951-2958.	1.7	2
60	Mechanisms and Energetics of Complete Ethylene Oxidation on a PdAu Bimetallic Catalyst from a Theoretical Perspective. Journal of Physical Chemistry C, 2022, 126, 9361-9370.	3.1	2
61	Dipole?reaction field interaction model for the solvent reorganization energy and its application to the benzoquinone?benzoquinone anion radical system. Theoretical Chemistry Accounts, 2002, 107, 282-290.	1.4	1
62	One approach to calculating the solvent reorganization energy of intramolecular electron transfer. Science Bulletin, 2003, 48, 35-38.	1.7	1
63	SOLVENT REORGANIZATION ENERGY WITH DIELECTRIC GREEN FUNCTIONAL AND ITS APPLICATION TO RETURN ELECTRON TRANSFER IN TETRACYANOETHYLENE-HEXAMETHYLBENZENE SYSTEM. Journal of Theoretical and Computational Chemistry, 2004, 03, 609-627.	1.8	1
64	Time-Dependent Stokes Shift from Solvent Dielectric Relaxation. Chinese Journal of Chemical Physics, 2010, 23, 297-302.	1.3	1
65	Catalytic cracking of n-decane over NiOâ€“MoO3 modified Pt/ZrO2â€“TiO2â€“Al2O3 catalyst with different Al2O3 ratios. Petroleum Chemistry, 2017, 57, 666-672.	1.4	1
66	Experimental and numerical investigation on the isobaric heat capacity for methylcyclohexane at high temperature and high pressure. Applied Thermal Engineering, 2019, 146, 613-621.	6.0	1
67	Single-sphere model for solvent reorganization energy and its application to electron transfer. Science Bulletin, 2006, 51, 902-905.	1.7	0
68	Theoretical Study on Electron Transfer Matrix Element in Oxidation of Î± â€•Amino Carbonâ€Centered Radical by O₂. Chinese Journal of Chemistry, 2002, 20, 972-977.	4.9	0
69	The performance comparison in predicting n-decane pyrolysis process between three ANNs methods: MLP, RBFN and GRNN. Petroleum Science and Technology, 2019, 37, 1053-1058.	1.5	0
70	PFR Model for High-pressure Reaction Flow of Fuel. Combustion Science and Technology, 0, , 1-15.	2.3	0
71	An improvement on Martinâ€“Hou equation of state for more precise prediction in the liquid region. AICHE Journal, 0, , .	3.6	0
72	Investigation on the Thermal Cracking and Interaction of Binary Mixture of N-Decane and Cyclohexane. Petroleum Chemistry, 0, , 1.	1.4	0

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73	Modified Martin-Hou Equation of State Used in the Liquid Region for Pure Substances. Russian Journal of Physical Chemistry A, 2022, 96, S16-S26.	0.6	0