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	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
2	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
3	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
4	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
5	TiN-SiO2 double layer composite coating with enhanced oxidation resistance and reusability in anti-coking applications. Fuel, 2022, 324, 124808.	6.4	9
6	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
7	Combined strategy and Ni NPs/SiO2 aerogel catalyst for cracking hydrocarbon fuels. Journal of Power Sources, 2021, 506, 230172.	7.8	10
8	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
9	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
10	Effects of Dissolved Oxygen Concentration on Supercritical Thermal Oxidation Coking of RP-3 Aviation Kerosene. Petroleum Chemistry, 2021, 61, 1296-1304.	1.4	4
11	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
12	Role of acidity in catalytic cracking of n-decane over supported Pt-based catalysts. Applied Surface Science, 2020, 507, 145113.	6.1	18
13	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
14	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
15	Soot formation of n-decane pyrolysis: A mechanistic view from ReaxFF molecular dynamics simulation. Chemical Physics Letters, 2020, 760, 137983.	2.6	21
16	Investigation on Carburization during the Repeated Coking and Decoking Process. Industrial & Engineering Chemistry Research, 2020, 59, 13051-13059.	3.7	14
17	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
18	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

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19	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
20	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
21	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
22	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
23	Thermal cracking characteristics of n-decane in the rectangular and circular tubes. Chinese Journal of Chemical Engineering, 2019, 27, 2876-2883.	3.5	14
24	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
25	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
26	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
27	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
28	Flow distribution of hydrocarbon fuel in parallel minichannels heat exchanger. AICHE Journal, 2018, 64, 2781-2791.	3.6	22
29	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
30	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
31	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
32	The performance of Rh/SiO2-Al2O3 catalysts in methycyclohexane cracking reaction. Journal of Analytical and Applied Pyrolysis, 2017, 124, 475-485.	5.5	12
33	Performance of Pt/ZrO2â€“TiO2â€“Al2O3 and coke deposition during methylcyclohexane catalytic cracking. Fuel, 2017, 200, 387-394.	6.4	26
34	An experimental and simulated investigation on pyrolysis of blended cyclohexane and benzene under supercritical pressure. Petroleum Chemistry, 2017, 57, 71-78.	1.4	7
35	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
36	Energy absorption and reaction mechanism for thermal pyrolysis of n-decane under supercritical pressure. Applied Thermal Engineering, 2017, 112, 403-412.	6.0	37

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37	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
38	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
39	Heat-Sink Enhancement of Supercritical Methylcyclohexane Cracking over Lanthanum-Modified Beta Zeolite. Journal of Propulsion and Power, 2016, 32, 801-809.	2.2	10
40	Characterization of MOCVD TiO2 coating and its anti-coking application in cyclohexane pyrolysis. Surface and Coatings Technology, 2016, 296, 108-116.	4.8	20
41	Mo-promoted catalysts for supercritical n-decane cracking. Applied Thermal Engineering, 2016, 102, 1238-1240.	6.0	12
42	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
43	The copper-catalyzed cross-coupling reactions of aryl diazonium salts and isocyanides. Russian Journal of General Chemistry, 2016, 86, 668-671.	0.8	6
44	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
45	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
46	Oxidation behavior of CVD star-shaped TiN coating in ambient air. Ceramics International, 2015, 41, 9549-9554.	4.8	19
47	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
48	Performance of RP-3 kerosene cracking over Pt/WO3â€“ZrO2 catalyst. Journal of Analytical and Applied Pyrolysis, 2015, 113, 736-742.	5.5	23
49	Cracking Performance of Supercritical n-Decane with Mo-promoted Pt/CeO₂-Al₂O₃Catalysts. Petroleum Science and Technology, 2015, 33, 622-628.	1.5	4
50	The performance of Pt/ZrxTixAl1â€“2xO2 as Kerosene cracking catalysts. Chinese Journal of Catalysis, 2014, 35, 175-184.	14.0	10
51	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
52	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
53	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
54	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

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55	Preparation of Rutile TiO₂ Coating by Thermal Chemical Vapor Deposition for Anticoking Applications. ACS Applied Materials & Interfaces, 2014, 6, 17157-17165.	8.0	34
56	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
57	Kerosene cracking over supported monolithic Pt catalysts: Effects of SrO and BaO promoters. Chinese Journal of Catalysis, 2013, 34, 1139-1147.	14.0	27
58	Vertical ionization energies of halogen anions in solution. Science China Chemistry, 2010, 53, 1316-1321.	8.2	5
59	Time-Dependent Stokes Shift from Solvent Dielectric Relaxation. Chinese Journal of Chemical Physics, 2010, 23, 297-302.	1.3	1
60	Single-sphere model for solvent reorganization energy and its application to electron transfer. Science Bulletin, 2006, 51, 902-905.	1.7	0
61	Explicit solvent model for spectral shift of acrolein and simulation with molecular dynamics. Science Bulletin, 2006, 51, 2951-2958.	1.7	2
62	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
63	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
64	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
65	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
66	One approach to calculating the solvent reorganization energy of intramolecular electron transfer. Science Bulletin, 2003, 48, 35-38.	1.7	1
67	Nonequilibrium solvation theory: Comparison, modification and application. Science Bulletin, 2003, 48, 965-970.	1.7	4
68	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
69	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
70	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
71	PFR Model for High-pressure Reaction Flow of Fuel. Combustion Science and Technology, 0, , 1-15.	2.3	0
72	An improvement on Martinâ€“Hou equation of state for more precise prediction in the liquid region. AICHE Journal, 0, , .	3.6	0

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73	Investigation on the Thermal Cracking and Interaction of Binary Mixture of N-Decane and Cyclohexane. Petroleum Chemistry, 0, , 1.	1.4	0