Abdullah Aitani

List of Publications by Year
in descending order

97 papers	3,028 citations	147801 31 h-index	182427 51 g-index
105 all docs	105 docs citations	105 times ranked	2716 citing authors

#	Article	IF	Citations
1	Decomposition of hydrocarbons to hydrogen and carbon. Applied Catalysis A: General, 2009, 359, 1-24.	4.3	194
2	Homogeneous catalytic reduction of CO₂ with hydrosilanes. Catalysis Science and Technology, 2014, 4, 611-624.	4.1	184
3	Ethylene dimerization and oligomerization to butene-1 and linear Î±-olefins. Catalysis Today, 1992, 14, 1-121.	4.4	170
4	Recent Advances in Reactions of Alkylbenzenes Over Novel Zeolites: The Effects of Zeolite Structure and Morphology. Catalysis Reviews - Science and Engineering, 2014, 56, 333-402.	12.9	148
5	Maximization of FCC light olefins by high severity operation and ZSM-5 addition. Catalysis Today, 2000, 60, 111-117.	4.4	83
6	Characterization of chromia/alumina catalysts by X-ray photoelectron spectroscopy, proton induced X-ray emission and thermogravimetric analysis. Applied Catalysis A: General, 1995, 121, 203-216.	4.3	78
7	Metathesis of 2-butene to propylene over W-mesoporous molecular sieves: A comparative study between tungsten containing MCM-41 and SBA-15. Applied Catalysis A: General, 2013, 467, 224-234.	4.3	78
8	Silicalite-1 As Efficient Catalyst for Production of Propene from 1-Butene. ACS Catalysis, 2014, 4, 4205-4214.	11.2	73
9	Enhancing propylene production from catalytic cracking of Arabian Light VGO over novel zeolites as FCC catalyst additives. Fuel, 2011, 90, 459-466.	6.4	72
10	Kinetics of toluene alkylation with methanol catalyzed by pure and hybridized HZSM-5 catalysts. Chemical Engineering Journal, 2012, 195-196, 276-288.	12.7	67
11	Catalytic cracking of Arabian Light VGO over novel zeolites as FCC catalyst additives for maximizing propylene yield. Fuel, 2016, 167, 226-239.	6.4	67
12	Catalytic cracking of crude oil to light olefins and naphtha: Experimental and kinetic modeling. Chemical Engineering Research and Design, 2017, 120, 121-137.	5.6	64
13	Modified HZSM-5 as FCC additive for enhancing light olefins yield from catalytic cracking of VGO. Applied Catalysis A: General, 2014, 477, 172-183.	4.3	60
14	Enhancing the Production of Light Olefins by Catalytic Cracking of FCC Naphtha over Mesoporous ZSM-5 Catalyst. Topics in Catalysis, 2010, 53, 1387-1393.	2.8	57
15	Comparison studies of xylene isomerization and disproportionation reactions between SSZ-33, TNU-9, mordenite and ZSM-5 zeolite catalysts. Chemical Engineering Journal, 2011, 166, 348-357.	12.7	48
16	Catalytic Cracking of Light Crude Oil to Light Olefins and Naphtha over E-Cat and MFI: Microactivity Test versus Advanced Cracking Evaluation and the Effect of High Reaction Temperature. Energy & Fuels, 2018, 32, 6189-6199.	5.1	47
17	Catalytic Upgrading of Light Naphtha to Gasoline Blending Components: A Mini Review. Energy & Fuels, 2019, 33, 3828-3843.	5.1	46
18	Thermal and catalytic cracking of whole crude oils at high severity. Journal of Analytical and Applied Pyrolysis, 2020, 145, 104705.	5.5	46

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19	Catalytic cracking of heavy naphtha-range hydrocarbons over different zeolites structures. Fuel Processing Technology, 2014, 122, 12-22.	7.2	45
20	Transalkylation of toluene with trimethylbenzenes over large-pore zeolites. Applied Catalysis A: General, 2010, 377, 99-106.	4.3	42
21	Catalytic cracking of 1-butene to propylene using modified H-ZSM-5 catalyst: A comparative study of surface modification and core-shell synthesis. Applied Catalysis A: General, 2017, 533, 109-120.	4.3	42
22	Side-chain alkylation of toluene with methanol to styrene over cesium ion-exchanged zeolite X modified with metal borates. Applied Catalysis A: General, 2012, 443-444, 214-220.	4.3	39
23	Modification of Cs-X for styrene production by side-chain alkylation of toluene with methanol. Catalysis Today, 2014, 226, 117-123.	4.4	39
24	Kinetics of dealkylationâ€“transalkylation of C9 alkyl-aromatics over zeolites of different structures. Chemical Engineering Research and Design, 2013, 91, 2601-2616.	5.6	38
25	Catalysis of alkaline-modified mordenite for benzene alkylation of diolefin-containing dodecene for linear alkylbenzene synthesis. Journal of Catalysis, 2013, 300, 81-90.	6.2	37
26	Conversion of Arabian Light Crude Oil to Light Olefins via Catalytic and Thermal Cracking. Energy & Fuels, 2018, 32, 8705-8714.	5.1	37
27	Selective synthesis of linear alkylbenzene by alkylation of benzene with 1-dodecene over desilicated zeolites. Catalysis Today, 2014, 227, 187-197.	4.4	36
28	Solvent-free iridium-catalyzed CO₂ hydrosilylation: experiments and kinetic modeling. Catalysis Science and Technology, 2015, 5, 274-279.	4.1	36
29	Transformation of Toluene and 1,2,4-Trimethylbenzene over ZSM-5 and Mordenite Catalysts: A Comprehensive Kinetic Model with Reversibility. Industrial & Engineering Chemistry Research, 2010, 49, 6376-6387.	3.7	35
30	Catalytic Cracking of Arab Super Light Crude Oil to Light Olefins: An Experimental and Kinetic Study. Energy & Fuels, 2018, 32, 2234-2244.	5.1	34
31	Zinc oxide as efficient additive to cesium ion-exchanged zeolite X catalyst for side-chain alkylation of toluene with methanol. Journal of Molecular Catalysis A, 2016, 424, 98-105.	4.8	33
32	Kinetics modeling of ethylbenzene dehydrogenation to styrene over a mesoporous alumina supported iron catalyst. Chemical Engineering Journal, 2012, 207-208, 308-321.	12.7	32
33	Pathway to Ethylbenzene Formation in Side-Chain Alkylation of Toluene with Methanol Over Cesium Ion-Exchanged Zeolite X. Catalysis Letters, 2013, 143, 1025-1029.	2.6	32
34	Catalytic Cracking of Crude Oil: Mini Review of Catalyst Formulations for Enhanced Selectivity to Light Olefins. Energy & Fuels, 2022, 36, 5152-5166.	5.1	32
35	Diffusion and reactivity of gas oil in FCC catalysts. Canadian Journal of Chemical Engineering, 2001, 79, 341-348.	1.7	31
36	Catalytic cracking of vacuum gasoil over -SVR, ITH, and MFI zeolites as FCC catalyst additives. Fuel Processing Technology, 2017, 161, 23-32.	7.2	31

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37	Catalytic transformation of methyl benzenes over zeolite catalysts. Applied Catalysis A: General, 2011, 394, 176-190.	4.3	30
38	1,2,4-Trimethylbenzene Transformation Reaction Compared with its Transalkylation Reaction with Toluene over USY Zeolite Catalyst. Industrial & Engineering Chemistry Research, 2007, 46, 4459-4467.	3.7	29
39	Conversion of heavy reformate into xylenes over mordenite-based catalysts. Chemical Engineering Research and Design, 2011, 89, 2125-2135.	5.6	29
40	Utilization of ZSM-5/MCM-41 composite as FCC catalyst additive for enhancing propylene yield from VGO cracking. Journal of Porous Materials, 2012, 19, 499-509.	2.6	29
41	Control of the Reaction Mechanism of Alkylaromatics Transalkylation by Means of Molecular Confinement Effects Associated to Zeolite Channel Architecture. ACS Catalysis, 2019, 9, 5935-5946.	11.2	29
42	FCC Gasoline Sulfur Reduction by Additives: A Review. Petroleum Science and Technology, 2007, 25, 299-313.	1.5	28
43	Processes to enhance refinery-hydrogen production. International Journal of Hydrogen Energy, 1996, 21, 267-271.	7.1	27
44	Hydroconversion of fatty acid derivative over supported Ni-Mo catalysts under low hydrogen pressure. Catalysis Today, 2018, 303, 185-190.	4.4	27
45	Environmental Benign Catalysis for Linear Alkylbenzene Synthesis: A Review. Catalysis Surveys From Asia, 2014, 18, 1-12.	2.6	25
46	Catalytic Transformation of 1,3,5-Trimethylbenzene over a USY Zeolite Catalyst. Energy & Fuels, 2007, 21, 2499-2508.	5.1	24
47	Enhancement of Propylene Production in a Downer FCC Operation using a ZSM-5 Additive. Chemical Engineering and Technology, 2005, 28, 923-929.	1.5	23
48	Catalytic cracking of n-dodecane and alkyl benzenes over FCC zeolite catalysts: Time on stream and reactant converted models. Chemical Engineering and Processing: Process Intensification, 2005, 44, 1257-1268.	3.6	22
49	Catalytic Cracking of Light Crude Oil: Effect of Feed Mixing with Liquid Hydrocarbon Fractions. Energy & Fuels, 2017, 31, 12677-12684.	5.1	21
50	Oil Refining and Products. , 2004, , 715-729.		19
51	Kinetics modeling of disproportionation and ethylation of ethylbenzene over HZSM-5: Effects of SiO2/Al2O3 ratio. Chemical Engineering Journal, 2013, 222, 498-511.	12.7	19
52	Influencing the activity and selectivity of alkylaromatic catalytic transformations by varying the degree of delamination in MWW zeolites. Catalysis Science and Technology, 2016, 6, 3166-3181.	4.1	18
53	Hierarchical composite catalysts of MCM-41 on zeolite Beta for conversion of heavy reformate to xylenes. Journal of Industrial and Engineering Chemistry, 2021, 98, 189-199.	5.8	18
54	Sulfur reduction in FCC gasoline using catalyst additives. Applied Catalysis A: General, 2006, 303, 116-120.	4.3	17

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55	Metathesis of 2-pentene over Mo and W supported mesoporous molecular sieves MCM-41 and SBA-15. Journal of Industrial and Engineering Chemistry, 2017, 53, 119-126.	5.8	17
56	The effect of UTL layer connectivity in isoreticular zeolites on the catalytic performance in toluene alkylation. Catalysis Today, 2016, 277, 55-60.	4.4	16
57	Three-dimensional 10-ring zeolites: The activities in toluene alkylation and disproportionation. Catalysis Today, 2016, 259, 97-106.	4.4	16
58	Steam catalytic cracking of crude oil over novel hierarchical zeoliteâ€“containing mesoporous silicaâ€“alumina core-shell catalysts. Journal of Analytical and Applied Pyrolysis, 2022, 166, 105621.	5.5	16
59	Alkylation of toluene with ethanol to para-ethyltoluene over MFI zeolites: Comparative study and kinetic modeling. Catalysis Today, 2015, 243, 109-117.	4.4	15
60	Catalysis of metal supported zeolites for dealkylationâ€“transalkylation of alkyl-aromatics. Applied Catalysis A: General, 2016, 514, 154-163.	4.3	14
61	Kinetics modelling of 2â€butene metathesis over tungsten oxide containing mesoporous silica catalyst. Canadian Journal of Chemical Engineering, 2014, 92, 1271-1282.	1.7	13
62	Selective production of xylenes from alkyl-aromatics and heavy reformates over dual-zeolite catalyst. Catalysis Today, 2015, 243, 118-127.	4.4	13
63	Effect of the CO2-pressure on the hydrosilylation of CO2 catalyzed by [Ir(NSiN)] species. Journal of CO2 Utilization, 2015, 12, 21-26.	6.8	13
64	The effect of alkylation route on ethyltoluene production over different structural types of zeolites. Chemical Engineering Journal, 2016, 306, 1071-1080.	12.7	13
65	Experimental determination of high-severity fluidized catalytic cracking (HS-FCC) deactivation constant. Applied Catalysis A: General, 2002, 237, 71-80.	4.3	12
66	Catalytic Transformation of Ethylbenzene over Y-Zeolite-based Catalysts. Energy & Fuels, 2008, 22, 3612-3619.	5.1	12
67	Production of Xylenes from Toluene and 1,2,4â€Trimethylbenzene over ZSMâ€5 and Mordenite Catalysts in a Fluidizedâ€Bed Reactor. Chemical Engineering and Technology, 2010, 33, 1193-1202.	1.5	12
68	Kinetics Study of Ethylbenzene Alkylation with Ethanol over Medium and Large Pore Zeolites. Industrial & Engineering Chemistry Research, 2013, 52, 13613-13621.	3.7	12
69	Light Paraffinic Naphtha to BTX Aromatics over Metalâ€Modified Pt/ZSMâ€5. ChemistrySelect, 2020, 5, 13807-13813.	1.5	12
70	METHANE CONVERSION TECHNOLOGY AND ECONOMICS. Petroleum Science and Technology, 1991, 9, 137-158.	0.2	11
71	Influence of tolueneâ€“tetramethylbenzene transalkylation on heavy aromatics conversion to xylenes. Journal of Industrial and Engineering Chemistry, 2015, 21, 1077-1088.	5.8	11
72	Infrared Study of Silanol Groups on Dealuminated High Silica MFI Zeolite to Correlate Different Types of Silanol Groups with Activity for Conversion of 1-Butene to Propene. Catalysis Letters, 2020, 150, 771-780.	2.6	10

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73	Molecular-Level Kinetic Modeling of Methyl Laurate: The Intrinsic Kinetics of Triglyceride Hydroprocessing. Energy & Fuels, 2018, 32, 5264-5270.	5.1	9
74	Kinetics of Desorption of 1,3-Diisopropylbenzene and 1,3,5-Triisopropylbenzene. 1. Diffusion in Y-Zeolite Crystals by the Zero-Length-Column Method. Industrial & Engineering Chemistry Research, 2005, 44, 2027-2035.	3.7	8
75	Experimental and kinetic studies of ethyltoluenes production via different alkylation reactions. Chemical Engineering Research and Design, 2015, 95, 34-46.	5.6	8
76	Design of an MWW zeolite catalyst for linear alkylbenzene synthesis with improved catalytic stability. Catalysis Science and Technology, 2016, 6, 2715-2724.	4.1	8
77	Molecular-Level Kinetic Modeling of Triglyceride Hydroprocessing. Energy & Fuels, 2019, 33, 7377-7384.	5.1	8
78	Oxidative dehydrogenation of n-butane to butadiene catalyzed by new mesoporous mixed oxides NiO-(beta-Bi2O3)-Bi2SiO5/SBA-15 system. Molecular Catalysis, 2020, 488, 110893.	2.0	8
79	EFFECT OF ZSM-5 ADDITION ON PRODUCT DISTRIBUTION IN A HIGH SEVERITY FCC MODE. Petroleum Science and Technology, 2001, 19, 685-695.	1.5	7
80	X-ray Photoelectron Spectroscopy Study of Moâ€“Ni/Î³â€“Al2O3 Catalysts for Hydroconversion of Fatty Oil Derivatives. Arabian Journal for Science and Engineering, 2014, 39, 6617-6625.	1.1	7
81	ADVANCES IN THE CHEMISTRY OF CATALYTIC REFORMING OF NAPHTHA. Petroleum Science and Technology, 1991, 9, 1-23.	0.2	6
82	Phenomenologicalâ€based kinetics modelling of dehydrogenation of ethylbenzene to styrene over a Mg₃Fe_{0.25}Mn_{0.25}Al_{0.5} hydrotalcite catalyst. Canadian Journal of Chemical Engineering, 2013, 91, 924-935.	1.7	6
83	Potentials for Diesel Fuel Production by Hydroprocessing of Middle Distillates. Energy Sources Part A Recovery, Utilization, and Environmental Effects, 1992, 14, 155-167.	0.5	5
84	Enhanced light olefins production via n-pentane cracking using modified MFI catalysts. Heliyon, 2022, 8, e09181.	3.2	5
85	Thermal analysis of spent steam-reforming catalysts. Thermochimica Acta, 1989, 149, 147-156.	2.7	4
86	Sulfur Reduction in FCC Gasoline with a Commercial Additive: A Microactivity Study. Petroleum Science and Technology, 2003, 21, 1265-1274.	1.5	4
87	Development of High Severity FCC Process for Maximizing Propylene Production â€”Catalyst Development and Optimization of Reaction Conditionsâ€”. Journal of the Japan Petroleum Institute, 2010, 53, 336-341.	0.6	4
88	Kinetics of liquid phase alkylation of benzene with dodecene over mordenite. Canadian Journal of Chemical Engineering, 2015, 93, 870-880.	1.7	4
89	Catalytic and Mechanistic Insights into Sideâ€Chain Alkenylation of Toluene with Methanol for Styrene Formation. ChemistrySelect, 2021, 6, 8026-8051.	1.5	4
90	Elucidation of the Reaction Network for the Oxidative Dehydrogenation of Butane to Butadiene. Energy & Fuels, 2019, 33, 1473-1478.	5.1	3

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91	Bimetallic Biâ€Ni oxides over carbide supports for oxidative dehydrogenation of nâ€butane: Experimental and kinetic modelling. Canadian Journal of Chemical Engineering, 2018, 96, 1367-1376.	1.7	2
92	The measurement of the extent of reduction of steam-reforming catalysts using thermal analysis techniques. Thermochimica Acta, 1991, 185, 73-82.	2.7	1
93	Hydrotreatment of Light Cycle Oil by Competitive Catalysts. Bulletin Des SociÃ©tÃ©s Chimiques Belges, 1991, 100, 887-895.	0.0	1
94	Ethylation of Ethylbenzene with Ethanol over Mordenite-Based Catalysts: Effects of Acidity, Desilication and Kinetics Analysis. International Journal of Chemical Reactor Engineering, 2014, 12, 487-496.	1.1	1
95	25th Annual Saudi-Japan Symposium: Catalysts in Petroleum Refining and Petrochemicals, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, December 7â€“8, 2015. Catalysis Surveys From Asia, 2016, 20, 59-62.	2.6	1
96	Efficient conversion of light paraffinic naphtha to aromatics over metal-modified Mo/MFI catalysts. Journal of Porous Materials, 2022, 29, 683-692.	2.6	1
97	Meeting Report 24th Annual Saudiâ€“Japan Symposium: Catalysts in Petroleum Refining & Petrochemicals, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia, December 1â€“2, 2014. Catalysis Surveys From Asia, 2015, 19, 57-60.	2.6	0