

# Jafar Towfighi Darain

## List of Publications by Year in descending order

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95  
papers

2,137  
citations

249298

26  
h-index

340414

39  
g-index

96  
all docs

96  
docs citations

96  
times ranked

2594  
citing authors

#	ARTICLE	IF	CITATIONS
1	Graphene growth with no intended carbon precursor feeding into the LPCVD process: causes, solutions, and effects. <i>Nanotechnology</i> , 2021, 32, 025604.	1.3	2
2	Sorption of cesium and strontium ions by natural zeolite and management of produced secondary waste. <i>Environmental Technology and Innovation</i> , 2020, 17, 100592.	3.0	26
3	A green and cost-effective surfactant-assisted synthesis of SAPO-34 using dual microporous templates with improved performance in MTO reaction. <i>Journal of Sol-Gel Science and Technology</i> , 2020, 95, 253-264.	1.1	7
4	Synthesis of Zirconium Modified Hierarchical Sapo-34 Catalysts using Carbon Nanotube Template for Conversion of Methanol to Light Olefins. <i>Petroleum Chemistry</i> , 2020, 60, 204-211.	0.4	9
5	Evaluation of polymer inclusion membrane efficiency in selective separation of lithium ion from aqueous solution. <i>Separation and Purification Technology</i> , 2020, 251, 117298.	3.9	31
6	Titania-Supported Vanadium Oxide Synthesis by Atomic Layer Deposition and Its Application for Low-Temperature Oxidative Dehydrogenation of Propane. <i>Catalysis Letters</i> , 2020, 150, 2807-2822.	1.4	7
7	Synthesis of mesoporous SAPO-34 catalysts in the presence of MWCNT, CNF, and GO as hard templates in MTO process. <i>Powder Technology</i> , 2019, 355, 127-134.	2.1	17
8	Synthesis of hierarchical SAPO-34 catalysts modified with manganese nanoparticles for conversion of methanol to light olefins: a deactivation and regeneration study. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2019, 128, 1043-1063.	0.8	8
9	Hybrid MIL-101(Cr)@MIL-53(Al) composite for carbon dioxide capture from biogas. <i>RSC Advances</i> , 2019, 9, 15141-15150.	1.7	9
10	Synthesis of mesoporous beta catalysts in the presence of carbon nanostructures as hard templates in MTO process. <i>Microporous and Mesoporous Materials</i> , 2019, 286, 169-175.	2.2	15
11	Effect of CNT, CNF, and GO carbon nanostructures as co-templates on ZSM-5 synthesis in MTO process. <i>Materials Research Express</i> , 2019, 6, 075020.	0.8	8
12	Novel hierarchical HZSM-5 zeolites prepared by combining desilication and steaming modification for converting methanol to propylene process. <i>Journal of Porous Materials</i> , 2019, 26, 1407-1425.	1.3	12
13	Study of holdup and slip velocity in an L-shaped pulsed sieve-plate extraction column. <i>International Journal of Industrial Chemistry</i> , 2019, 10, 1-15.	3.1	10
14	Synthesis of highly crystalline nanosized HZSM-5 catalyst employing combined hydrothermal and sonochemical method: Investigation of ultrasonic parameters on physico-chemical and catalytic performance in methanol to propylene reaction. <i>Journal of Solid State Chemistry</i> , 2019, 271, 8-22.	1.4	12
15	Oxidative dehydrogenation of propane over vanadium catalyst supported on nano-HZSM-5. <i>Petroleum Chemistry</i> , 2018, 58, 13-21.	0.4	13
16	Study of synthesis parameters of MIL-53(Al) using experimental design methodology for CO <sub>2</sub> /CH <sub>4</sub> separation. <i>Adsorption Science and Technology</i> , 2018, 36, 247-269.	1.5	17
17	Decomposition of tributyl phosphate at supercritical water oxidation conditions: Non-catalytic, catalytic, and kinetic reaction studies. <i>Journal of Supercritical Fluids</i> , 2018, 133, 103-113.	1.6	33
18	Simultaneous effects of water, TEOH and morpholine on SAPO-34 synthesis and its performance in MTO process. <i>Microporous and Mesoporous Materials</i> , 2018, 261, 111-118.	2.2	24

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19	Preparation of hierarchical HZSM-5 zeolites with combined desilication with NaAlO <sub>2</sub> /tetrapropylammonium hydroxide and acid modification for converting methanol to propylene. RSC Advances, 2018, 8, 41131-41142.	1.7	16
20	Nine-lumped kinetic model for VGO catalytic cracking; using catalyst deactivation. Fuel, 2018, 231, 118-125.	3.4	28
21	Catalytic supercritical water destructive oxidation of tributyl phosphate: Study on the effect of operational parameters. Journal of Supercritical Fluids, 2018, 140, 32-40.	1.6	22
22	Methyl mercaptan removal from natural gas using MIL-53(Al). Journal of Natural Gas Science and Engineering, 2017, 38, 272-282.	2.1	31
23	Experimental investigation on regime transition and characteristic velocity in a horizontal-vertical pulsed sieve-plate column. RSC Advances, 2017, 7, 2288-2300.	1.7	29
24	On the catalysis capability of transition metal oxide nanoparticles in upgrading of heavy petroleum residue by supercritical water. Journal of Supercritical Fluids, 2017, 126, 14-24.	1.6	28
25	A MIL-101(Cr) and Graphene Oxide Composite for Methane-Rich Stream Treatment. Energy & Fuels, 2017, 31, 8792-8802.	2.5	21
26	Investigation of Key Factors and Their Interactions in MTO Reaction by Statistical Design of Experiments. International Journal of Chemical Reactor Engineering, 2016, 14, 1047-1057.	0.6	0
27	Experimental investigation of bioethanol liquid phase dehydration using natural clinoptilolite. Journal of Advanced Research, 2016, 7, 435-444.	4.4	22
28	Performance of a nickel-alumina catalytic layer for simultaneous production and purification of hydrogen in a tubular membrane reactor. RSC Advances, 2016, 6, 75686-75692.	1.7	5
29	Carbon nanotube templated synthesis of metal containing hierarchical SAPO-34 catalysts: Impact of the preparation method and metal avidities in the MTO reaction. Microporous and Mesoporous Materials, 2016, 236, 1-12.	2.2	68
30	Evaluation of a tubular nano-composite ceramic membrane for hydrogen separation in methane steam reforming reaction. RSC Advances, 2016, 6, 84276-84283.	1.7	6
31	Carbon nanotube templated synthesis of hierarchical SAPO-34 catalysts with different structure directing agents for catalytic conversion of methanol to light olefins. Journal of Analytical and Applied Pyrolysis, 2016, 121, 11-23.	2.6	40
32	Upgraded Biofuel Diesel Production by Thermal Cracking of Castor Biodiesel. Energy & Fuels, 2016, 30, 326-333.	2.5	12
33	Catalytic cracking of heavy petroleum residue in supercritical water: Study on the effect of different metal oxide nanoparticles. Journal of Supercritical Fluids, 2016, 113, 136-143.	1.6	47
34	Performance enhancement of vertically aligned carbon nanotube membranes for separation of binary mixtures of H <sub>2</sub> S/CH <sub>4</sub> using different amine groups. Materials Research Bulletin, 2016, 77, 155-165.	2.7	3
35	The effects of SiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> and H <sub>2</sub> O/Al <sub>2</sub> O <sub>3</sub> molar ratios on SAPO-34 catalysts in methanol to olefins (MTO) process using experimental design. Journal of Industrial and Engineering Chemistry, 2016, 35, 123-131.	2.9	17
36	An investigation into the formation and conversion of metal complexes to metal oxide nanoparticles in supercritical water. Journal of Supercritical Fluids, 2016, 107, 699-706.	1.6	16

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37	Tri-templates synthesis of SAPO-34 and its performance in MTO reaction by statistical design of experiments. <i>Applied Catalysis A: General</i> , 2015, 493, 103-111.	2.2	44
38	Synthesis of zirconium and cerium over HZSM-5 catalysts for light olefins production from naphtha. <i>Journal of Analytical and Applied Pyrolysis</i> , 2015, 112, 135-140.	2.6	32
39	Effect of cerium and zirconium nanoparticles on the structure and catalytic performance of SAPO-34 in steam cracking of naphtha to light olefins. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2015, 115, 719-740.	0.8	14
40	Methanol conversion over SAPO-34 catalysts; Systematic study of temperature, space-time, and initial gel composition on product distribution and stability. <i>Fuel</i> , 2015, 153, 382-392.	3.4	31
41	Synthesis of $\text{TiO}_2/\text{P}25$ coated on ceramic foam by modified sol-gel method for Acid Red 73 degradation under visible-light irradiation. <i>Research on Chemical Intermediates</i> , 2015, 41, 4489-4509.	1.3	6
42	Facilitated and selective oxidation of thiophenic sulfur compounds using $\text{MoO}_3/\text{Al}_2\text{O}_3/\text{H}_2\text{O}_2$ system under ultrasonic irradiation. <i>Ultrasonics Sonochemistry</i> , 2015, 23, 231-237.	3.8	45
43	Investigation of process variables and intensification effects of ultrasound applied in oxidative desulfurization of model diesel over $\text{MoO}_3/\text{Al}_2\text{O}_3$ catalyst. <i>Ultrasonics Sonochemistry</i> , 2014, 21, 692-705.	3.8	70
44	Effect of phosphorus and water contents on physico-chemical properties of SAPO-34 molecular sieve. <i>Powder Technology</i> , 2014, 259, 81-86.	2.1	23
45	Thorough investigation of varying template combinations on SAPO-34 synthesis, catalytic activity and stability in the methanol conversion to light olefin. <i>RSC Advances</i> , 2014, 4, 49762-49769.	1.7	24
46	Syngas Production from Reforming of Methane with $\text{CO}_2$ and $\text{O}_2$ over $\text{LaNi}_{1-x}\text{Co}_x\text{O}_3$ Perovskites. <i>International Journal of Chemical Reactor Engineering</i> , 2014, 12, 25-34.	0.6	3
47	Kinetic modeling formulation of the methanol to olefin process: Parameter estimation. <i>Journal of Industrial and Engineering Chemistry</i> , 2014, 20, 3108-3114.	2.9	23
48	Comparative study of naphtha cracking over SAPO-34 and HZSM-5: Effects of cerium and zirconium on the catalytic performance. <i>Journal of Analytical and Applied Pyrolysis</i> , 2014, 107, 165-173.	2.6	43
49	Effect of iron, phosphorous, and Si/Al on HZSM-5 catalytic performance and stability by response surface methodology. <i>Journal of Analytical and Applied Pyrolysis</i> , 2013, 104, 695-702.	2.6	7
50	Characterization of $\text{TiO}_2$ -coated ceramic foam prepared by modified sol-gel method and optimization of synthesis parameters in photodegradation of Acid Red 73. <i>Korean Journal of Chemical Engineering</i> , 2013, 30, 1855-1866.	1.2	10
51	$\text{H}_2\text{S}$ oxidation by multi-wall carbon nanotubes decorated with tungsten sulfide. <i>Korean Journal of Chemical Engineering</i> , 2013, 30, 871-877.	1.2	9
52	Synthesis of $\text{MnO}_x$ /Oxidized-MWNTs for Abatement of Nitrogen Oxides. <i>Catalysis Letters</i> , 2013, 143, 184-192.	1.4	12
53	Improving energy efficiency of an Olefin plant - A new approach. <i>Energy Conversion and Management</i> , 2013, 76, 453-462.	4.4	18
54	Investigation of $\text{H}_2\text{S}$ separation from $\text{H}_2\text{S}/\text{CH}_4$ mixtures using functionalized and non-functionalized vertically aligned carbon nanotube membranes. <i>Applied Surface Science</i> , 2013, 270, 115-123.	3.1	27

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55	Kinetic study of steam catalytic cracking of naphtha on a Fe/ZSM-5 catalyst. <i>Fuel</i> , 2013, 109, 432-438.	3.4	36
56	Preparation of Biodiesel Using KOH-MWCNT Catalysts: An Optimization Study. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 1829-1835.	1.8	21
57	Facile synthesis of carbon nanotube/nanofiber paper on a water-soluble support in one-step by chemical vapor deposition. <i>Chemical Engineering Journal</i> , 2013, 221, 159-165.	6.6	10
58	Optimization and deactivation study of Fe/Ce/HZSM-5 catalyst in steam catalytic cracking of mixed ethanol/naphtha feed. <i>Journal of Analytical and Applied Pyrolysis</i> , 2013, 102, 144-153.	2.6	17
59	The effects of excess manganese in nano-size lanthanum manganite perovskite on enhancement of trichloroethylene oxidation activity. <i>Chemical Engineering Journal</i> , 2013, 215-216, 827-837.	6.6	38
60	Preparation of highly active manganese oxides supported on functionalized MWNTs for low temperature NOx reduction with NH3. <i>Applied Surface Science</i> , 2013, 279, 250-259.	3.1	71
61	The effect of key factors on thermal catalytic cracking of naphtha over Ce/La/SAPO-34 catalyst by statistical design of experiments. <i>Journal of Analytical and Applied Pyrolysis</i> , 2013, 99, 184-190.	2.6	4
62	Enhanced Trichloroethylene Catalytic Oxidation on Modified Lanthanum Manganite ano-Perovskites. <i>International Journal of Chemical Reactor Engineering</i> , 2013, 11, 353-359.	0.6	1
63	Structure Stability and Oxygen Permeability of Perovskite-type Oxides of Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.1</sub> R <sub>0.1</sub> O <sub>3-<math>\delta</math></sub> (R=Al, Mn, Fe, Ce, Cr, Ni, Co). <i>Journal of Materials Science and Technology</i> , 2012, 28, 177-183.	5.6	31
64	The effect of Fe, P and Si/Al molar ratio on stability of HZSM-5 catalyst in naphtha thermal-catalytic cracking to light olefins. <i>Catalysis Communications</i> , 2012, 27, 114-118.	1.6	32
65	Genetic algorithm model development for prediction of main products in thermal cracking of naphtha: Comparison with kinetic modeling. <i>Chemical Engineering Journal</i> , 2012, 209, 255-262.	6.6	44
66	Partial oxidation of methane in Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.1</sub> Ni <sub>0.1</sub> O <sub>3-<math>\delta</math></sub> ceramic membrane reactor. <i>Journal of Natural Gas Chemistry</i> , 2012, 21, 519-525.	1.8	19
67	Thermal catalytic cracking of naphtha over multi wall carbon nanotube catalysts. <i>Journal of Analytical and Applied Pyrolysis</i> , 2012, 98, 7-14.	2.6	8
68	Methane dry reforming on Ni/Ce <sub>0.75</sub> Zr <sub>0.25</sub> O <sub>2</sub> -MgAl <sub>2</sub> O <sub>4</sub> and Ni/Ce <sub>0.75</sub> Zr <sub>0.25</sub> O <sub>2</sub> - $\gamma$ -alumina: Effects of support composition and water addition. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 4107-4118.	3.8	111
69	The adsorption characteristics of uranium hexafluoride onto activated carbon in vacuum conditions. <i>Annals of Nuclear Energy</i> , 2012, 46, 144-151.	0.9	11
70	A novel CeO <sub>2</sub> supported on carbon nanotubes coated with SiO <sub>2</sub> catalyst for catalytic cracking of naphtha. <i>Applied Catalysis A: General</i> , 2012, 417-418, 53-58.	2.2	27
71	Modeling of Thermal Cracking of Heavy Liquid Hydrocarbon: Application of Kinetic Modeling, Artificial Neural Network, and Neuro-Fuzzy Models. <i>Industrial &amp; Engineering Chemistry Research</i> , 2011, 50, 1536-1547.	1.8	55
72	Modification of Carbon Nanotubes for H <sub>2</sub> S Sorption. <i>Industrial &amp; Engineering Chemistry Research</i> , 2011, 50, 8050-8057.	1.8	28

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73	Determination of CO <sub>2</sub> Hydrate Interfacial Tension in the Solution. Journal of Chemical Engineering of Japan, 2011, 44, 936-942.	0.3	3
74	The influence of preparation conditions on ZrO <sub>2</sub> nanoparticles with different PEG-PPG-PEG surfactants by statistical experimental design. Materials Letters, 2011, 65, 2913-2916.	1.3	14
75	Order-disorder transition and phase stability of Ba <sub>x</sub> Sr <sub>1-x</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> oxides. Journal of Membrane Science, 2011, 376, 78-82.	4.1	18
76	Nanoclays as nano adsorbent for oxidation of H <sub>2</sub> S into elemental sulfur. Korean Journal of Chemical Engineering, 2011, 28, 1221-1226.	1.2	9
77	Effect of process variables on product yield distribution in thermal catalytic cracking of naphtha to light olefins over Fe/HZSM-5. Korean Journal of Chemical Engineering, 2011, 28, 1351-1358.	1.2	15
78	Experimental study and optimization of heavy liquid hydrocarbon thermal cracking to light olefins by response surface methodology. Korean Journal of Chemical Engineering, 2010, 27, 1170-1176.	1.2	21
79	Synthesis of BSCFO Ceramics Membrane Using a Simple Complexing Method and Experimental Study of Sintering Parameters. Journal of Materials Science and Technology, 2010, 26, 914-920.	5.6	6
80	Experimental study and kinetic modeling of kerosene thermal cracking. Journal of Analytical and Applied Pyrolysis, 2009, 86, 221-232.	2.6	22
81	On the Introduction of a Qualitative Variable to the Neural Network for Reactor Modeling: Feed Type. Industrial & Engineering Chemistry Research, 2009, 48, 3820-3824.	1.8	4
82	Oxygen Separation from Air by Four-Bed Pressure Swing Adsorption. Industrial & Engineering Chemistry Research, 2009, 48, 5439-5444.	1.8	34
83	Determination of yield distribution in olefin production by thermal cracking of atmospheric gasoil. Korean Journal of Chemical Engineering, 2008, 25, 681-692.	1.2	16
84	Modeling and Control of a Naphtha Thermal Cracking Pilot Plant. Industrial & Engineering Chemistry Research, 2006, 45, 3574-3582.	1.8	25
85	Systematics and modelling representations of LPG thermal cracking for olefin production. Korean Journal of Chemical Engineering, 2006, 23, 8-16.	1.2	25
86	Gas hold-up and oxygen transfer in a draft-tube airlift bioreactor with petroleum-based liquids. Biochemical Engineering Journal, 2005, 22, 105-110.	1.8	45
87	Four-Bed Vacuum Pressure Swing Adsorption Process for Propylene/Propane Separation. Industrial & Engineering Chemistry Research, 2005, 44, 1557-1564.	1.8	19
88	Design and operational aspects of airlift bioreactors for petroleum biodesulfurization. Environmental Progress, 2004, 23, 206-214.	0.8	20
89	Influence of top-section design and draft-tube height on the performance of airlift bioreactors containing water-in-oil microemulsion. Journal of Chemical Technology and Biotechnology, 2004, 79, 260-267.	1.6	23
90	Selection of a Suitable Strain from Recombinant Escherichia coli Strains with the Same Genetic Structure Expressing Periplasmic hGM-CSF. Journal of Bioscience and Bioengineering, 2004, 96, 578-580.	1.1	0

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91	Application of a Bubble-Column Reactor for the Production of a Single-Cell Protein from Cheese Whey. Industrial & Engineering Chemistry Research, 2003, 42, 764-766.	1.8	11
92	Characterization of Activated Carbon by Propane and Propylene Adsorption. Journal of Chemical & Engineering Data, 2003, 48, 1256-1261.	1.0	20
93	Coke Formation Mechanisms and Coke Inhibiting Methods in Pyrolysis Furnaces.. Journal of Chemical Engineering of Japan, 2002, 35, 923-937.	0.3	89
94	Steam Cracking of Naphtha in Packed Bed Reactors. Industrial & Engineering Chemistry Research, 2002, 41, 1419-1424.	1.8	22
95	Computational Study of the Pyrolysis Reactions and Coke Deposition in Industrial Naphtha Cracking. Lecture Notes in Computer Science, 2002, , 723-732.	1.0	0