

# Nashaat N Nassar

List of Publications by Year  
in descending order

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109  
papers

5,672  
citations

71102

41  
h-index

82547

72  
g-index

115  
all docs

115  
docs citations

115  
times ranked

3600  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rapid removal and recovery of Pb(II) from wastewater by magnetic nanoadsorbents. Journal of Hazardous Materials, 2010, 184, 538-546.	12.4	489
2	Nanoparticle technology for heavy oil in-situ upgrading and recovery enhancement: Opportunities and challenges. Applied Energy, 2014, 133, 374-387.	10.1	294
3	Metal Oxide Nanoparticles for Asphaltene Adsorption and Oxidation. Energy & Fuels, 2011, 25, 1017-1023.	5.1	255
4	Asphaltene Adsorption onto Alumina Nanoparticles: Kinetics and Thermodynamic Studies. Energy & Fuels, 2010, 24, 4116-4122.	5.1	202
5	Application of Nanotechnology for Heavy Oil Upgrading: Catalytic Steam Gasification/Cracking of Asphaltenes. Energy & Fuels, 2011, 25, 1566-1570.	5.1	180
6	Nanoparticles for Inhibition of Asphaltenes Damage: Adsorption Study and Displacement Test on Porous Media. Energy & Fuels, 2013, 27, 2899-2907.	5.1	179
7	Enhanced Heavy Oil Recovery by in Situ Prepared Ultradispersed Multimetallic Nanoparticles: A Study of Hot Fluid Flooding for Athabasca Bitumen Recovery. Energy & Fuels, 2013, 27, 2194-2201.	5.1	156
8	Iron oxide nanoparticles for rapid adsorption and enhanced catalytic oxidation of thermally cracked asphaltenes. Fuel, 2012, 95, 257-262.	6.4	139
9	Effect of surface acidity and basicity of aluminas on asphaltene adsorption and oxidation. Journal of Colloid and Interface Science, 2011, 360, 233-238.	9.4	126
10	Comparative oxidation of adsorbed asphaltenes onto transition metal oxide nanoparticles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 384, 145-149.	4.7	123
11	Adsorption and Subsequent Oxidation of Colombian Asphaltenes onto Nickel and/or Palladium Oxide Supported on Fumed Silica Nanoparticles. Energy & Fuels, 2013, 27, 7336-7347.	5.1	112
12	Development of a Population Balance Model to Describe the Influence of Shear and Nanoparticles on the Aggregation and Fragmentation of Asphaltene Aggregates. Industrial & Engineering Chemistry Research, 2015, 54, 8201-8211.	3.7	106
13	Kinetics, Mechanistic, Equilibrium, and Thermodynamic Studies on the Adsorption of Acid Red Dye from Wastewater by $\text{Fe}_3\text{O}_4$ Nanoadsorbents. Separation Science and Technology, 2010, 45, 1092-1103.	2.5	103
14	Role of Particle Size and Surface Acidity of Silica Gel Nanoparticles in Inhibition of Formation Damage by Asphaltene in Oil Reservoirs. Industrial & Engineering Chemistry Research, 2016, 55, 6122-6132.	3.7	102
15	The effects of SiO <sub>2</sub> nanoparticles on the thermal stability and rheological behavior of hydrolyzed polyacrylamide based polymeric solutions. Journal of Petroleum Science and Engineering, 2017, 159, 841-852.	4.2	99
16	Effect of the Particle Size on Asphaltene Adsorption and Catalytic Oxidation onto Alumina Particles. Energy & Fuels, 2011, 25, 3961-3965.	5.1	94
17	Effects of Resin I on Asphaltene Adsorption onto Nanoparticles: A Novel Method for Obtaining Asphaltenes/Resin Isotherms. Energy & Fuels, 2016, 30, 264-272.	5.1	93
18	A Novel Solid-Liquid Equilibrium Model for Describing the Adsorption of Associating Asphaltene Molecules onto Solid Surfaces Based on the "Chemical Theory". Energy & Fuels, 2014, 28, 4963-4975.	5.1	92

#	ARTICLE	IF	CITATIONS
19	Polyethylenimine-functionalized pyroxene nanoparticles embedded on Diatomite for adsorptive removal of dye from textile wastewater in a fixed-bed column. <i>Chemical Engineering Journal</i> , 2017, 320, 389-404.	12.7	90
20	Comparing kinetics and mechanism of adsorption and thermo-oxidative decomposition of Athabasca asphaltenes onto TiO <sub>2</sub> , ZrO <sub>2</sub> , and CeO <sub>2</sub> nanoparticles. <i>Applied Catalysis A: General</i> , 2014, 484, 161-171.	4.3	84
21	Adsorptive removal of oil spill from oil-in-fresh water emulsions by hydrophobic alumina nanoparticles functionalized with petroleum vacuum residue. <i>Journal of Colloid and Interface Science</i> , 2014, 425, 168-177.	9.4	83
22	Transport Behavior of Multimetallic Ultradispersed Nanoparticles in an Oil-Sands-Packed Bed Column at a High Temperature and Pressure. <i>Energy &amp; Fuels</i> , 2012, 26, 1645-1655.	5.1	80
23	Importance of the Adsorption Method Used for Obtaining the Nanoparticle Dosage for Asphaltene-Related Treatments. <i>Energy &amp; Fuels</i> , 2016, 30, 2052-2059.	5.1	79
24	Silica Nanoparticle Enhancement in the Efficiency of Surfactant Flooding of Heavy Oil in a Glass Micromodel. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 8528-8534.	3.7	77
25	Nanoparticle Preparation Using the Single Microemulsions Scheme. <i>Current Nanoscience</i> , 2008, 4, 370-380.	1.2	73
26	Kinetics, equilibrium and thermodynamic studies on the adsorptive removal of nickel, cadmium and cobalt from wastewater by superparamagnetic iron oxide nano-adsorbents. <i>Canadian Journal of Chemical Engineering</i> , 2012, 90, 1231-1238.	1.7	69
27	Kinetics of the catalytic thermo-oxidation of asphaltenes at isothermal conditions on different metal oxide nanoparticle surfaces. <i>Catalysis Today</i> , 2013, 207, 127-132.	4.4	69
28	Thermogravimetric studies on catalytic effect of metal oxide nanoparticles on asphaltene pyrolysis under inert conditions. <i>Journal of Thermal Analysis and Calorimetry</i> , 2012, 110, 1327-1332.	3.6	67
29	Influence of Asphaltene Aggregation on the Adsorption and Catalytic Behavior of Nanoparticles. <i>Energy &amp; Fuels</i> , 2015, 29, 1610-1621.	5.1	65
30	Effect of oxide support on Ni-Pd bimetallic nanocatalysts for steam gasification of n-C 7 asphaltenes. <i>Fuel</i> , 2015, 156, 110-120.	6.4	57
31	Removal of oil from oil-in-saltwater emulsions by adsorption onto nano-alumina functionalized with petroleum vacuum residue. <i>Journal of Colloid and Interface Science</i> , 2014, 433, 58-67.	9.4	55
32	Oil spill cleanup employing magnetite nanoparticles and yeast-based magnetic bionanocomposite. <i>Journal of Environmental Management</i> , 2019, 230, 405-412.	7.8	55
33	Maghemite nanosorbents for methylene blue adsorption and subsequent catalytic thermo-oxidative decomposition: Computational modeling and thermodynamics studies. <i>Journal of Colloid and Interface Science</i> , 2016, 461, 396-408.	9.4	52
34	Silica-alumina composite as an effective adsorbent for the removal of metformin from water. <i>Journal of Environmental Chemical Engineering</i> , 2019, 7, 102994.	6.7	51
35	Effects of Surface Acidity and Polarity of SiO <sub>2</sub> Nanoparticles on the Foam Stabilization Applied to Natural Gas Flooding in Tight Gas-Condensate Reservoirs. <i>Energy &amp; Fuels</i> , 2018, 32, 5824-5833.	5.1	50
36	Kinetics and mechanisms of the catalytic thermal cracking of asphaltenes adsorbed on supported nanoparticles. <i>Petroleum Science</i> , 2016, 13, 561-571.	4.9	49

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37	Adsorptive removal of dyes from synthetic and real textile wastewater using magnetic iron oxide nanoparticles: Thermodynamic and mechanistic insights. Canadian Journal of Chemical Engineering, 2015, 93, 1965-1974.	1.7	47
38	Rapid Adsorption of Methylene Blue from Aqueous Solutions by Goethite Nanoadsorbents. Environmental Engineering Science, 2012, 29, 790-797.	1.6	46
39	<i>In Situ</i> Upgrading of Athabasca Bitumen Using Multimetallic Ultradispersed Nanocatalysts in an Oil Sands Packed-Bed Column: Part 1. Produced Liquid Quality Enhancement. Energy & Fuels, 2014, 28, 1338-1350.	5.1	46
40	Treatment of olive mill based wastewater by means of magnetic nanoparticles: Decolourization, dephenolization and COD removal. Environmental Nanotechnology, Monitoring and Management, 2014, 1-2, 14-23.	2.9	46
41	Conversion of petroleum coke into valuable products using oxy-cracking technique. Fuel, 2018, 215, 865-878.	6.4	45
42	The effect of the nanosize on surface properties of NiO nanoparticles for the adsorption of Quinolin-65. Physical Chemistry Chemical Physics, 2016, 18, 6839-6849.	2.8	43
43	Nanopyroxene-Based Nanofluids for Enhanced Oil Recovery in Sandstone Cores at Reservoir Temperature. Energy & Fuels, 2019, 33, 877-890.	5.1	43
44	Modeling and Prediction of Asphaltene Adsorption Isotherms Using Polanyi's Modified Theory. Energy & Fuels, 2013, 27, 2908-2914.	5.1	42
45	Effect of microemulsion variables on copper oxide nanoparticle uptake by AOT microemulsions. Journal of Colloid and Interface Science, 2007, 316, 442-450.	9.4	41
46	Fixed-bed column studies of total organic carbon removal from industrial wastewater by use of diatomite decorated with polyethylenimine-functionalized pyroxene nanoparticles. Journal of Colloid and Interface Science, 2018, 513, 28-42.	9.4	40
47	Ultradispersed particles in heavy oil: Part I, preparation and stabilization of iron oxide/hydroxide. Fuel Processing Technology, 2010, 91, 164-168.	7.2	39
48	How Effective Are Nanomaterials for the Removal of Heavy Metals from Water and Wastewater?. Water, Air, and Soil Pollution, 2020, 231, 1.	2.4	38
49	Hydroxyl-functionalized silicate-based nanofluids for enhanced oil recovery. Fuel, 2020, 269, 117462.	6.4	36
50	A New Model for Describing the Adsorption of Asphaltenes on Porous Media at a High Pressure and Temperature under Flow Conditions. Energy & Fuels, 2015, 29, 4210-4221.	5.1	35
51	Development of a support for a NiO catalyst for selective adsorption and post-adsorption catalytic steam gasification of thermally converted asphaltenes. Catalysis Today, 2013, 207, 112-118.	4.4	33
52	Pyrolysis and Oxidation of Asphaltene-Born Coke-like Residue Formed onto in Situ Prepared NiO Nanoparticles toward Advanced in Situ Combustion Enhanced Oil Recovery Processes. Energy & Fuels, 2018, 32, 5033-5044.	5.1	33
53	Preparation and characterization of polyethylenimine-functionalized pyroxene nanoparticles and its application in wastewater treatment. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 525, 20-30.	4.7	31
54	Ultradispersed particles in heavy oil: Part II, sorption of H <sub>2</sub> S(g). Fuel Processing Technology, 2010, 91, 169-174.	7.2	30

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55	<i>In Situ</i> Upgrading of Athabasca Bitumen Using Multimetallic Ultradispersed Nanocatalysts in an Oil Sands Packed-Bed Column: Part 2. Solid Analysis and Gaseous Product Distribution. <i>Energy &amp; Fuels</i> , 2014, 28, 1351-1361.	5.1	30
56	Thermo-Oxidative Decomposition Behaviors of Different Sources of <i>n</i> -C <sub>7</sub> Asphaltenes under High-Pressure Conditions. <i>Energy &amp; Fuels</i> , 2020, 34, 8740-8758.	5.1	30
57	Study and Modeling of Iron Hydroxide Nanoparticle Uptake by AOT (w/o) Microemulsions. <i>Langmuir</i> , 2007, 23, 13093-13103.	3.5	29
58	Effects of resin I on the catalytic oxidation of <i>n</i> -C <sub>7</sub> asphaltenes in the presence of silica-based nanoparticles. <i>RSC Advances</i> , 2016, 6, 74630-74642.	3.6	29
59	Scavenging H <sub>2</sub> S(g) from oil phases by means of ultradispersed sorbents. <i>Journal of Colloid and Interface Science</i> , 2010, 342, 253-260.	9.4	28
60	Comparative study on thermal cracking of Athabasca bitumen. <i>Journal of Thermal Analysis and Calorimetry</i> , 2013, 114, 465-472.	3.6	27
61	Effects of the size of NiO nanoparticles on the catalytic oxidation of Quinolin-65 as an asphaltene model compound. <i>Fuel</i> , 2017, 207, 423-437.	6.4	27
62	Preparation of iron oxide nanoparticles from FeCl <sub>3</sub> solid powder using microemulsions. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2006, 203, 1324-1328.	1.8	26
63	Nanosize effects of NiO nanosorbents on adsorption and catalytic thermo-oxidative decomposition of vacuum residue asphaltenes. <i>Canadian Journal of Chemical Engineering</i> , 2017, 95, 1864-1874.	1.7	25
64	Effect of nanosized and surface-structural-modified nano-pyroxene on adsorption of violanthrone-79. <i>RSC Advances</i> , 2016, 6, 64482-64493.	3.6	25
65	A combined experimental and density functional theory study of metformin oxy-cracking for pharmaceutical wastewater treatment. <i>RSC Advances</i> , 2019, 9, 13403-13413.	3.6	24
66	Clarifying the catalytic role of NiO nanoparticles in the oxidation of asphaltenes. <i>Applied Catalysis A: General</i> , 2013, 462-463, 116-120.	4.3	22
67	Synthesis, solvatochromism and crystal structure of trans-[Cu(Et <sub>2</sub> NCH <sub>2</sub> CH <sub>2</sub> NH <sub>2</sub> ) <sub>2</sub> .(H <sub>2</sub> O)](NO <sub>3</sub> ) <sub>2</sub> complex: Experimental with DFT combination. <i>Journal of Molecular Structure</i> , 2017, 1148, 328-338.	3.6	22
68	Catalytic oxy-cracking of petroleum coke on copper silicate for production of humic acids. <i>Applied Catalysis B: Environmental</i> , 2020, 264, 118472.	20.2	22
69	Synergetic effects of cerium and nickel in Ce-Ni-MFI catalysts on low-temperature water-gas shift reaction. <i>Fuel</i> , 2019, 237, 361-372.	6.4	21
70	Theoretical and thermogravimetric study on the thermo-oxidative decomposition of Quinolin-65 as an asphaltene model molecule. <i>RSC Advances</i> , 2016, 6, 54418-54430.	3.6	20
71	Enhancing Chromium (VI) removal from synthetic and real tannery effluents by using diatomite-embedded nanopyroxene. <i>Chemosphere</i> , 2020, 252, 126523.	8.2	20
72	Experimental and theoretical studies on the thermal decomposition of metformin. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 138, 433-441.	3.6	19

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73	Capturing H <sub>2</sub> S(g) by In Situ-Prepared Ultradispersed Metal Oxide Particles in an Oilsand-Packed Bed Column. <i>Energy &amp; Fuels</i> , 2010, 24, 5903-5906.	5.1	18
74	Experimental and computational modeling studies on silica-embedded NiO/MgO nanoparticles for adsorptive removal of organic pollutants from wastewater. <i>RSC Advances</i> , 2017, 7, 14021-14038.	3.6	18
75	Nanopyroxene Grafting with $\beta$ -Cyclodextrin Monomer for Wastewater Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 42393-42407.	8.0	18
76	Magnetic Nanostructured White Graphene for Oil Spill and Water Cleaning. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 13065-13076.	3.7	18
77	Integrating Silicate-Based Nanoparticles with Low-Salinity Water Flooding for Enhanced Oil Recovery in Sandstone Reservoirs. <i>Industrial &amp; Engineering Chemistry Research</i> , 2020, 59, 16225-16239.	3.7	18
78	Experimental and theoretical studies on oxy-cracking of Quinolin-65 as a model molecule for residual feedstocks. <i>Reaction Chemistry and Engineering</i> , 2017, 2, 703-719.	3.7	16
79	Metformin Removal from Water Using Fixed-bed Column of Silica-Alumina Composite. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 597, 124814.	4.7	16
80	Enhanced Oil Recovery from Austin Chalk Carbonate Reservoirs Using Faujasite-Based Nanoparticles Combined with Low-Salinity Water Flooding. <i>Energy &amp; Fuels</i> , 2021, 35, 213-225.	5.1	16
81	Design of a laboratory experiment on heat transfer in an agitated vessel. <i>Education for Chemical Engineers</i> , 2011, 6, e83-e89.	4.8	15
82	A combined experimental and computational modeling study on adsorption of propionic acid onto silica-embedded NiO/MgO nanoparticles. <i>Chemical Engineering Journal</i> , 2017, 327, 666-677.	12.7	15
83	Enhanced thermal conductivity and reduced viscosity of aegirine-based VR/VGO nanofluids for enhanced thermal oil recovery application. <i>Journal of Petroleum Science and Engineering</i> , 2020, 185, 106569.	4.2	13
84	Oxy-cracking technique for producing non-combustion products from residual feedstocks and cleaning up wastewater. <i>Applied Energy</i> , 2020, 280, 115890.	10.1	13
85	Catalytic steam gasification of n-C5 asphaltenes by kaolin-based catalysts in a fixed-bed reactor. <i>Applied Catalysis A: General</i> , 2015, 507, 149-161.	4.3	12
86	Enhancement of petroleum coke thermal reactivity using Oxy-cracking technique. <i>Canadian Journal of Chemical Engineering</i> , 2019, 97, 2794-2803.	1.7	11
87	Oxy-Cracking Reaction for Enhanced Settling and Dewaterability of Oil Sands Tailings. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 4988-4996.	3.7	11
88	Development and characterization of novel combinations of Ce- $\gamma$ -Al <sub>2</sub> O <sub>3</sub> solids for water gas shift reaction. <i>Canadian Journal of Chemical Engineering</i> , 2019, 97, 140-151.	1.7	11
89	Agricultural Land Use Change and its Drivers in the Palestinian Landscape Under Political Instability, the Case of Tulkarm City. <i>Journal of Borderlands Studies</i> , 2019, 34, 377-394.	1.4	10
90	Effects of glycerol on the minimization of water readsorption on sub-bituminous coal. <i>Drying Technology</i> , 2017, 35, 249-260.	3.1	9

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91	Mechanism of Hierarchical Porosity Development in Hexagonal Boron Nitride Nanocrystalline Microstructures for Biomedical and Industrial Applications. ACS Applied Nano Materials, 2018, 1, 4491-4501.	5.0	9
92	Effect of pressure on thermo-oxidative reactions of saturates, aromatics, and resins (S-Ar-R) from extra-heavy crude oil. Fuel, 2022, 311, 122596.	6.4	9
93	Enhanced Settling and Dewatering of Oil Sands Mature Fine Tailings with Titanomagnetite Nanoparticles Grafted with Polyacrylamide and Lauryl Sulfate. ACS Applied Nano Materials, 2022, 5, 7679-7695.	5.0	9
94	A novel laboratory experiment for demonstrating boiling heat transfer. Education for Chemical Engineers, 2012, 7, e210-e218.	4.8	8
95	Kinetic study of the thermo-oxidative decomposition of metformin by isoconversional and theoretical methods. Thermochimica Acta, 2020, 694, 178797.	2.7	8
96	Size Effects of NiO Nanoparticles on the Competitive Adsorption of Quinolin-65 and Violanthrone-79: Implications for Oil Upgrading and Recovery. ACS Applied Nano Materials, 2020, 3, 5311-5326.	5.0	8
97	A heat-transfer laboratory experiment with shell-and-tube condenser. Education for Chemical Engineers, 2017, 19, 38-47.	4.8	7
98	Influence of CTAB-Grafted Faujasite Nanoparticles on the Dynamic Interfacial Tension of Oil/Water Systems. Energy & Fuels, 0, , .	5.1	6
99	Study and Modeling of Metal Oxide Solubilization in (w/o) Microemulsions. Journal of Dispersion Science and Technology, 2010, 31, 1714-1720.	2.4	5
100	Simultaneous removal of silica and TOC from steam assisted gravity drainage (SAGD) produced water using iron-hydroxide-coated walnut shell filter media. Journal of Water Process Engineering, 2021, 43, 102016.	5.6	5
101	Density functional theory study on the catalytic dehydrogenation of methane on MoO <sub>3</sub> (0 1 0) surface. Computational and Theoretical Chemistry, 2022, 1211, 113689.	2.5	5
102	A study on the characteristics of Algerian Hassi-Messaoud asphaltenes: solubility and precipitation. Petroleum Science and Technology, 2022, 40, 1279-1301.	1.5	5
103	Catalytic Steam Gasification of Athabasca Visbroken Residue by NiO-Kaolin-Based Catalysts in a Fixed-Bed Reactor. Energy & Fuels, 2017, 31, 7396-7404.	5.1	4
104	Investigation of the interaction between nanoparticles, asphaltenes, and silica surfaces by real-time quartz crystal microbalance with dissipation. Canadian Journal of Chemical Engineering, 2021, 99, 2452-2466.	1.7	4
105	Naturally derived pyroxene nanomaterials: an ore for wide applications. , 2020, , 731-774.		1
106	Nanoparticles as Adsorbents for Asphaltenes. Lecture Notes in Nanoscale Science and Technology, 2021, , 97-129.	0.8	1
107	Nanoparticles for Cleaning up Oil Sands Process-Affected Water. Lecture Notes in Nanoscale Science and Technology, 2021, , 445-496.	0.8	1
108	O-exchange evidenced in Ce-Ni-MFI catalysts during water gas shift reaction: Use of isotopic water (50% H <sub>2</sub> <sup>18</sup> O - 50% H <sub>2</sub> <sup>16</sup> O). Applied Catalysis B: Environmental, 2020, 263, 118365.	20.2	0

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109	Maximizing the Uptake of Nickel Oxide Nanoparticles by AOT (W/O) Microemulsions. Statistical Science and Interdisciplinary Research, 2012, , 257-269.	0.0	0