Devinder Mahajan

List of Publications by Year
in descending order

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56	1,934	236925	254184
papers	citations	25 h-index	43 g-index

58	58	58	2433
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Computational fluid dynamic modeling of methane-hydrogen mixture transportation in pipelines: estimating energy costs. MRS Advances, 2022, 7, 388-393.	0.9	6
2	Hydrogen Blending in Gas Pipeline Networksâ€"A Review. Energies, 2022, 15, 3582.	3.1	60
3	Realistic operation of two residential cordwood-fired outdoor hydronic heater appliancesâ€"Part 2: Particle number and size. Journal of the Air and Waste Management Association, 2022, 72, 762-776.	1.9	2
4	Realistic operation of two residential cordwood-fired outdoor hydronic heater appliancesâ€"Part 3: Optical properties of black and brown carbon emissions. Journal of the Air and Waste Management Association, 2022, 72, 777-790.	1.9	1
5	Introduction to special issue on <scp>USâ€China EcoPartnership</scp>: Pathways toward decarbonizing economies to mitigate climate change. Environmental Progress and Sustainable Energy, 2021, 40, e13652.	2.3	0
6	Quantifying the Potential of Renewable Natural Gas to Support a Reformed Energy Landscape: Estimates for New York State. Energies, 2021, 14, 3834.	3.1	4
7	Microwave-assisted dry reforming of methane for syngas production: a review. Environmental Chemistry Letters, 2020, 18, 1987-2019.	16.2	51
8	Solvent effect in sonochemical synthesis of metal-alloy nanoparticles for use as electrocatalysts. Ultrasonics Sonochemistry, 2018, 41, 427-434.	8.2	47
9	Highly Dispersed Carbon Supported PdNiMo Core with Pt Monolayer Shell Electrocatalysts for Oxygen Reduction Reaction. Journal of the Electrochemical Society, 2018, 165, J3295-J3300.	2.9	8
10	Highly Dispersed Carbon Supported PdNiMo Core with Pt Monolayer Shell Electrocatalysts for Oxygen Reduction Reaction. ECS Transactions, 2018, 85, 67-89.	0.5	2
11	Free-conditioning dewatering of sewage sludge through in situ propane hydrate formation. Water Research, 2018, 145, 464-472.	11.3	25
12	Preface to Special Topic: Low-Carbon Pathways Toward Decarbonizing Economy in Asia Pacific. Journal of Renewable and Sustainable Energy, 2017, 9, 021301.	2.0	0
13	Global Biofuels at the Crossroads: An Overview of Technical, Policy, and Investment Complexities in the Sustainability of Biofuel Development. Agriculture (Switzerland), 2017, 7, 32.	3.1	106
14	Occurrence State and Molecular Structure Analysis of Extracellular Proteins with Implications on the Dewaterability of Waste-Activated Sludge. Environmental Science & Technology, 2017, 51, 9235-9243.	10.0	174
15	Methane emissions as energy reservoir: Context, scope, causes and mitigation strategies. Progress in Energy and Combustion Science, 2016, 56, 33-70.	31.2	92
16	Catalytic synthesis of mixed alcohols mediated with nano-MoS2 microemulsions. Fuel, 2016, 164, 339-346.	6.4	21
17	Carbon dioxide-induced liberation of methane from laboratory-formed methane hydrates. Canadian Journal of Chemistry, 2015, 93, 998-1006.	1.1	3
18	Comprehensive investigation of the biomass derived furfuryl alcohol oligomer formation over tungsten oxide catalysts. Catalysis Communications, 2015, 72, 11-15.	3.3	15

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19	Characterizations of furfuryl alcohol oligomer/polymerization catalyzed by homogeneous and heterogeneous acid catalysts. Korean Journal of Chemical Engineering, 2014, 31, 2124-2129.	2.7	28
20	Imaging methane hydrates growth dynamics in porous media using synchrotron Xâ€ray computed microtomography. Geochemistry, Geophysics, Geosystems, 2014, 15, 4759-4768.	2.5	64
21	High flux ethanol dehydration using nanofibrous membranes containing graphene oxide barrier layers. Journal of Materials Chemistry A, 2013, 1, 12998.	10.3	84
22	Formation and Dissociation of Methane Hydrates from Seawater in Consolidated Sand: Mimicking Methane Hydrate Dynamics beneath the Seafloor. Energies, 2013, 6, 6225-6241.	3.1	18
23	Kinetics of the Formation and Dissociation of Gas Hydrates from CO2-CH4 Mixtures. Energies, 2012, 5, 2248-2262.	3.1	26
24	Editorial: Energy and the U.S. Department of State. Journal of Renewable and Sustainable Energy, 2012, 4, 060401.	2.0	0
25	Polymeric nanofibrous composite membranes for energy efficient ethanol dehydration. Journal of Renewable and Sustainable Energy, 2012, 4, .	2.0	10
26	Carbon-Supported IrNi Coreâ€“Shell Nanoparticles: Synthesis, Characterization, and Catalytic Activity. Journal of Physical Chemistry C, 2011, 115, 9894-9902.	3.1	58
27	Biogas potential on Long Island, New York: A quantification study. Journal of Renewable and Sustainable Energy, 2011, 3, 043118.	2.0	12
28	Hydrate Formation at the Methane/Water Interface on the Molecular Scale. Langmuir, 2010, 26, 4627-4630.	3.5	28
29	Mimicking natural systems: methane hydrate formation-decomposition in depleted sediments. Geological Society Special Publication, 2009, 319, 121-130.	1.3	1
30	Role of Thermochemical Conversion in Livestock Waste-to-Energy Treatments:â€‰ Obstacles and Opportunities. Industrial & Engineering Chemistry Research, 2007, 46, 8918-8927.	3.7	110
31	Effects of Bipolar Plate Material and Impurities in Reactant Gases on PEM Fuel Cell Performance. Industrial & Engineering Chemistry Research, 2007, 46, 8898-8905.	3.7	8
32	Cold Flow Behavior of Biodiesels Derived from Biomass Sources. Industrial & Engineering Chemistry Research, 2007, 46, 8846-8851.	3.7	19
33	Characterization of methane hydrate host sediments using synchrotron-computed microtomography (CMT). Journal of Petroleum Science and Engineering, 2007, 56, 136-145.	4.2	20
34	A novel high-pressure apparatus to study hydrateâ€“sediment interactions. Journal of Petroleum Science and Engineering, 2007, 56, 101-107.	4.2	17
35	Fundamental challenges to methane recovery from gas hydrates. Topics in Catalysis, 2005, 32, 101-104.	2.8	3
36	Atom-economical reduction of carbon monoxide to methanol catalyzed by soluble transition metal complexes at low temperatures. Topics in Catalysis, 2005, 32, 209-214.	2.8	20

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37	Complex formation of montmorillonite clay with polymers. Part 2: The use of montmorillonite clay-vinyl monomer complex as a comonomer in the copolymerization reaction of styrene-acrylonitrile monomers. Polymer International, 2005, 54, 428-436.	3.1	4
38	Polymer-montmorillonite clay nanocomposites. Part 1: Complexation of montmorillonite clay with a vinyl monomer. Polymer International, 2005, 54, 423-427.	3.1	24
39	Sonolysis induced decomposition of metal carbonyls: kinetics and product characterization. Ultrasonics Sonochemistry, 2004, 11, 385-392.	8.2	23
40	Sono synthesis and characterization of nano-phase molybdenum-based materials for catalytic hydrodesulfurization. Applied Catalysis A: General, 2004, 258, 83-91.	4.3	20
41	Synthesis of Zerovalent Nanophase Metal Particles Stabilized with Poly(ethylene glycol). Langmuir, 2004, 20, 6896-6903.	3.5	48
42	Integrating low-temperature methanol synthesis and CO2 sequestration technologies: application to IGCC plants. Catalysis Today, 2003, 84, 71-81.	4.4	20
43	The role of nano-sized iron particles in slurry phase Fischerâ€“Tropsch synthesis. Catalysis Communications, 2003, 4, 101-107.	3.3	31
44	Evaluation of Nanosized Iron in Slurry-Phase Fischerâ˜Tropsch Synthesis. Energy & Fuels, 2003, 17, 1210-1221.	5.1	33
45	Kinetic modeling of homogeneous methanol synthesis catalyzed by base-promoted nickel complexes. Canadian Journal of Chemistry, 2001, 79, 848-853.	1.1	13
46	Catalytic routes to transportation fuels utilizing natural gas hydrates. Catalysis Today, 1999, 50, 97-108.	4.4	17
47	Selective synthesis of mixed alcohols catalyzed by dissolved base-activated highly dispersed slurried iron. Fuel, 1999, 78, 93-100.	6.4	16
48	Kinetic and mechanistic aspects of the binding of dihydrogen by bis(ditertiaryphosphine)rhodium(I) tetrafluoroborate complexes, and activity of the dihydrides for catalytic asymmetric hydrogenation of prochiral olefinic acids. Journal of Organometallic Chemistry, 1985, 279, 31-48.	1.8	30
49	Homogeneous catalysis of the water gas shift reaction by (polypyridine)rhodium(I) complexes. Inorganic Chemistry, 1985, 24, 2063-2067.	4.0	36
50	Reaction of carbon monoxide with hydridobis[di(tertiary phosphine)]rhodium(I) complexes. Synthesis and structure of the metal-metal bonded carbonyl-bridged dimers [Rh(CO)(diphosphine)]2(.mu.-CO)2. Organometallics, 1983, 2, 1452-1458.	2.3	45
51	Electron-transfer barriers and metal-ligand bonding as a function of metal oxidation state. 2. Crystal and molecular structures of tris(2,2'-bipyridine)cobalt(II) dichloride-2-water-ethanol and tris(2,2'-bipyridine)cobalt(I) chloride-water. Inorganic Chemistry, 1983, 22, 2372-2379.	4.0	111
52	Homogeneous Catalysis of the Photoreduction of Water by Visible Light. 3. Mediation by Polypyridine Complexes of Ruthenium(II) and Cobalt(II). Israel Journal of Chemistry, 1982, 22, 98-106.	2.3	64
53	Nature of bis(2,2'-bipyridine)rhodium(I) in aqueous solutions. Inorganic Chemistry, 1982, 21, 3989-3997.	4.0	47
54	X-ray structural characterization and catalytic properties of hydridobis[4,5-bis((diphenylphosphino)methyl)-2,2-dimethyl-1,3-dioxolane]rhodium(I). Inorganic Chemistry, 1981, 20, 254-261.	4.0	29

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55	Reactions of bis(ditertiaryphosphine) complexes of rhodium(I) with carbon monoxide, dioxygen, dihydrogen, and hydrogen chloride. Canadian Journal of Chemistry, 1980, 58, 996-1004.	1.1	48
56	Bis(ditertiaryphosphine) complexes of rhodium(I). Synthesis, spectroscopy, and activity for catalytic hydrogenation. Canadian Journal of Chemistry, 1979, 57, 180-187.	1.1	83