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	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
2	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
3	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
4	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
5	Methane emissions as energy reservoir: Context, scope, causes and mitigation strategies. Progress in Energy and Combustion Science, 2016, 56, 33-70.	31.2	92
6	High flux ethanol dehydration using nanofibrous membranes containing graphene oxide barrier layers. Journal of Materials Chemistry A, 2013, 1, 12998.	10.3	84
7	Bis(ditertiaryphosphine) complexes of rhodium(I). Synthesis, spectroscopy, and activity for catalytic hydrogenation. Canadian Journal of Chemistry, 1979, 57, 180-187.	1.1	83
8	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
9	Imaging methane hydrates growth dynamics in porous media using synchrotron Xâ€ray computed microtomography. Geochemistry, Geophysics, Geosystems, 2014, 15, 4759-4768.	2.5	64
10	Hydrogen Blending in Gas Pipeline Networksâ€”A Review. Energies, 2022, 15, 3582.	3.1	60
11	Carbon-Supported IrNi Coreâ€“Shell Nanoparticles: Synthesis, Characterization, and Catalytic Activity. Journal of Physical Chemistry C, 2011, 115, 9894-9902.	3.1	58
12	Microwave-assisted dry reforming of methane for syngas production: a review. Environmental Chemistry Letters, 2020, 18, 1987-2019.	16.2	51
13	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
14	Synthesis of Zerovalent Nanophase Metal Particles Stabilized with Poly(ethylene glycol). Langmuir, 2004, 20, 6896-6903.	3.5	48
15	Nature of bis(2,2'-bipyridine)rhodium(I) in aqueous solutions. Inorganic Chemistry, 1982, 21, 3989-3997.	4.0	47
16	Solvent effect in sonochemical synthesis of metal-alloy nanoparticles for use as electrocatalysts. Ultrasonics Sonochemistry, 2018, 41, 427-434.	8.2	47
17	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
18	Homogeneous catalysis of the water gas shift reaction by (polypyridine)rhodium(I) complexes. Inorganic Chemistry, 1985, 24, 2063-2067.	4.0	36

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19	Evaluation of Nanosized Iron in Slurry-Phase Fischerâ˜Tropsch Synthesis. Energy & Fuels, 2003, 17, 1210-1221.	5.1	33
20	The role of nano-sized iron particles in slurry phase Fischerâ€“Tropsch synthesis. Catalysis Communications, 2003, 4, 101-107.	3.3	31
21	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
22	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
23	Hydrate Formation at the Methane/Water Interface on the Molecular Scale. Langmuir, 2010, 26, 4627-4630.	3.5	28
24	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
25	Kinetics of the Formation and Dissociation of Gas Hydrates from CO2-CH4 Mixtures. Energies, 2012, 5, 2248-2262.	3.1	26
26	Free-conditioning dewatering of sewage sludge through in situ propane hydrate formation. Water Research, 2018, 145, 464-472.	11.3	25
27	Polymer-montmorillonite clay nanocomposites. Part 1: Complexation of montmorillonite clay with a vinyl monomer. Polymer International, 2005, 54, 423-427.	3.1	24
28	Sonolysis induced decomposition of metal carbonyls: kinetics and product characterization. Ultrasonics Sonochemistry, 2004, 11, 385-392.	8.2	23
29	Catalytic synthesis of mixed alcohols mediated with nano-MoS2 microemulsions. Fuel, 2016, 164, 339-346.	6.4	21
30	Integrating low-temperature methanol synthesis and CO2 sequestration technologies: application to IGCC plants. Catalysis Today, 2003, 84, 71-81.	4.4	20
31	Sono synthesis and characterization of nano-phase molybdenum-based materials for catalytic hydrodesulfurization. Applied Catalysis A: General, 2004, 258, 83-91.	4.3	20
32	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
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	Cold Flow Behavior of Biodiesels Derived from Biomass Sources. Industrial & Engineering Chemistry Research, 2007, 46, 8846-8851.	3.7	19
35	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
36	Catalytic routes to transportation fuels utilizing natural gas hydrates. Catalysis Today, 1999, 50, 97-108.	4.4	17

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37	A novel high-pressure apparatus to study hydrateâ€“sediment interactions. Journal of Petroleum Science and Engineering, 2007, 56, 101-107.	4.2	17
38	Selective synthesis of mixed alcohols catalyzed by dissolved base-activated highly dispersed slurried iron. Fuel, 1999, 78, 93-100.	6.4	16
39	Comprehensive investigation of the biomass derived furfuryl alcohol oligomer formation over tungsten oxide catalysts. Catalysis Communications, 2015, 72, 11-15.	3.3	15
40	Kinetic modeling of homogeneous methanol synthesis catalyzed by base-promoted nickel complexes. Canadian Journal of Chemistry, 2001, 79, 848-853.	1.1	13
41	Biogas potential on Long Island, New York: A quantification study. Journal of Renewable and Sustainable Energy, 2011, 3, 043118.	2.0	12
42	Polymeric nanofibrous composite membranes for energy efficient ethanol dehydration. Journal of Renewable and Sustainable Energy, 2012, 4, .	2.0	10
43	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
44	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
45	Computational fluid dynamic modeling of methane-hydrogen mixture transportation in pipelines: estimating energy costs. MRS Advances, 2022, 7, 388-393.	0.9	6
46	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
47	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
48	Fundamental challenges to methane recovery from gas hydrates. Topics in Catalysis, 2005, 32, 101-104.	2.8	3
49	Carbon dioxide-induced liberation of methane from laboratory-formed methane hydrates. Canadian Journal of Chemistry, 2015, 93, 998-1006.	1.1	3
50	Highly Dispersed Carbon Supported PdNiMo Core with Pt Monolayer Shell Electrocatalysts for Oxygen Reduction Reaction. ECS Transactions, 2018, 85, 67-89.	0.5	2
51	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
52	Mimicking natural systems: methane hydrate formation-decomposition in depleted sediments. Geological Society Special Publication, 2009, 319, 121-130.	1.3	1
53	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
54	Editorial: Energy and the U.S. Department of State. Journal of Renewable and Sustainable Energy, 2012, 4, 060401.	2.0	0

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55	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
56	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