

Murray R Gray

List of Publications by Year in descending order

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221
papers

8,714
citations

34100

52
h-index

66906

78
g-index

223
all docs

223
docs citations

223
times ranked

5773
citing authors

#	ARTICLE	IF	CITATIONS
1	Supramolecular Assembly Model for Aggregation of Petroleum Asphaltenes. <i>Energy & Fuels</i> , 2011, 25, 3125-3134.	5.1	385
2	Selective Sorting of Cargo Proteins into Bacterial Membrane Vesicles. <i>Journal of Biological Chemistry</i> , 2011, 286, 1269-1276.	3.4	280
3	Quantitative Molecular Representation and Sequential Optimization of Athabasca Asphaltenes. <i>Energy & Fuels</i> , 2004, 18, 1377-1384.	5.1	202
4	On water-in-oil emulsions stabilized by fine solids. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2001, 193, 97-107.	4.7	201
5	Chemistry and Association of Vanadium Compounds in Heavy Oil and Bitumen, and Implications for Their Selective Removal. <i>Energy & Fuels</i> , 2010, 24, 2795-2808.	5.1	191
6	Stabilization of Oil-Water Emulsions by Hydrophobic Bacteria. <i>Applied and Environmental Microbiology</i> , 2004, 70, 6333-6336.	3.1	166
7	Role of Chain Reactions and Olefin Formation in Cracking, Hydroconversion, and Coking of Petroleum and Bitumen Fractions. <i>Energy & Fuels</i> , 2002, 16, 756-766.	5.1	137
8	Bacterial Adhesion to Soil Contaminants in the Presence of Surfactants. <i>Applied and Environmental Microbiology</i> , 1999, 65, 163-168.	3.1	128
9	Analysis of Asphaltenes and Asphaltene Model Compounds by Laser-Induced Acoustic Desorption/Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. <i>Energy & Fuels</i> , 2009, 23, 5564-5570.	5.1	118
10	Molecular Structures of Asphaltenes Based on the Dissociation Reactions of Their Ions in Mass Spectrometry. <i>Energy & Fuels</i> , 2010, 24, 5548-5559.	5.1	115
11	Density Functional Theory Investigation of the Contributions of π - π Stacking and Hydrogen-Bonding Interactions to the Aggregation of Model Asphaltene Compounds. <i>Energy & Fuels</i> , 2012, 26, 2727-2735.	5.1	113
12	Consistency of Asphaltene Chemical Structures with Pyrolysis and Coking Behavior. <i>Energy & Fuels</i> , 2003, 17, 1566-1569.	5.1	110
13	Adaptive multirate state and parameter estimation strategies with application to a bioreactor. <i>AIChE Journal</i> , 1995, 41, 2451-2464.	3.6	108
14	Uptake and Active Efflux of Polycyclic Aromatic Hydrocarbons by <i>Pseudomonas fluorescens</i> LP6a. <i>Applied and Environmental Microbiology</i> , 2000, 66, 5387-5392.	3.1	100
15	Formation of Archipelago Structures during Thermal Cracking Implicates a Chemical Mechanism for the Formation of Petroleum Asphaltenes. <i>Energy & Fuels</i> , 2011, 25, 2130-2136.	5.1	100
16	Separation and Characterization of Vanadyl Porphyrins in Venezuela Orinoco Heavy Crude Oil. <i>Energy & Fuels</i> , 2013, 27, 2874-2882.	5.1	98
17	Analysis of Force Interactions between AFM Tips and Hydrophobic Bacteria Using DLVO Theory. <i>Langmuir</i> , 2009, 25, 6968-6976.	3.5	96
18	Pyrolytic Decarboxylation and Cracking of Stearic Acid. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 5328-5336.	3.7	93

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19	Quantitative Evidence for Bridged Structures in Asphaltenes by Thin Film Pyrolysis. <i>Energy & Fuels</i> , 2011, 25, 3581-3589.	5.1	90
20	Influence of adhesion on aerobic biodegradation and bioremediation of liquid hydrocarbons. <i>Applied Microbiology and Biotechnology</i> , 2011, 92, 653-675.	3.6	90
21	Mechanisms of Asphaltene Aggregation: Puzzles and a New Hypothesis. <i>Energy & Fuels</i> , 2020, 34, 9094-9107.	5.1	90
22	Effectiveness and mobility of catalysts for gasification of bitumen coke. <i>Fuel</i> , 2011, 90, 120-125.	6.4	86
23	Reactions of Polynuclear Aromatic Hydrocarbons on Soil. <i>Environmental Science & Technology</i> , 1996, 30, 1145-1151.	10.0	85
24	Thermal Cracking of Athabasca Bitumen: Influence of Steam on Reaction Chemistry. <i>Energy & Fuels</i> , 2000, 14, 671-676.	5.1	80
25	Atomic Force Microscopy Measurement of Heterogeneity in Bacterial Surface Hydrophobicity. <i>Langmuir</i> , 2008, 24, 4944-4951.	3.5	77
26	High-pressure thermal cracking of n-hexadecane. <i>Industrial & Engineering Chemistry Research</i> , 1993, 32, 1853-1863.	3.7	76
27	Application of atomic force microscopy in bacterial research. <i>Scanning</i> , 2010, 32, 74-96.	1.5	73
28	Effect of temperature on hybridoma cell cycle and MAb production. <i>Biotechnology and Bioengineering</i> , 1992, 40, 427-431.	3.3	72
29	Identification and Characterization of the emhABC Efflux System for Polycyclic Aromatic Hydrocarbons in <i>Pseudomonas fluorescens</i> cLP6a. <i>Journal of Bacteriology</i> , 2003, 185, 6233-6240.	2.2	69
30	Phase behavior of Athabasca bitumen+water mixtures at high temperature and pressure. <i>Journal of Supercritical Fluids</i> , 2013, 77, 142-152.	3.2	69
31	Characterization of Asphaltene Building Blocks by Cracking under Favorable Hydrogenation Conditions. <i>Energy & Fuels</i> , 2013, 27, 1817-1829.	5.1	69
32	Prediction of sedimentation and consolidation of fine tails. <i>AIChE Journal</i> , 1996, 42, 960-972.	3.6	68
33	Water Enhances the Aggregation of Model Asphaltenes in Solution via Hydrogen Bonding. <i>Energy & Fuels</i> , 2009, 23, 3687-3693.	5.1	66
34	Kinetics of Solvent Interactions with Asphaltenes during Coke Formation. <i>Energy & Fuels</i> , 2002, 16, 148-154.	5.1	65
35	Solvent screening for non-aqueous extraction of Alberta oil sands. <i>Canadian Journal of Chemical Engineering</i> , 2013, 91, 1153-1160.	1.7	65
36	Initial Coke Deposition on a NiMo/Al ₂ O ₃ Bitumen Hydroprocessing Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 1996, 35, 3940-3950.	3.7	63

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37	Saturable, Energy-Dependent Uptake of Phenanthrene in Aqueous Phase by Mycobacterium sp. Strain RJGII-135. <i>Applied and Environmental Microbiology</i> , 2004, 70, 363-369.	3.1	61
38	Comparing Laser Desorption/Laser Ionization Mass Spectra of Asphaltenes and Model Compounds. <i>Energy & Fuels</i> , 2010, 24, 3589-3594.	5.1	60
39	Measurement of Contact Angles for Fumed Silica Nanospheres Using Enthalpy of Immersion Data. <i>Journal of Colloid and Interface Science</i> , 2000, 228, 1-6.	9.4	58
40	Two different mechanisms for adhesion of Gram-negative bacterium, <i>Pseudomonas fluorescens</i> LP6a, to an oil/water interface. <i>Colloids and Surfaces B: Biointerfaces</i> , 2008, 62, 36-41.	5.0	58
41	Kinetics of catalytic steam gasification of bitumen coke. <i>Fuel</i> , 2011, 90, 1285-1291.	6.4	58
42	Kinetics of Hydrodesulfurization of Thiophenic and Sulfide Sulfur in Athabasca Bitumen. <i>Energy & Fuels</i> , 1995, 9, 500-506.	5.1	57
43	Fundamentals of bitumen coking processes analogous to granulations: A critical review. <i>Canadian Journal of Chemical Engineering</i> , 2002, 80, 393-401.	1.7	57
44	Kinetics and Properties of Asphaltene Adsorption on Surfaces. <i>Energy & Fuels</i> , 2012, 26, 1009-1018.	5.1	57
45	Fundamentals of Partial Upgrading of Bitumen. <i>Energy & Fuels</i> , 2019, 33, 6843-6856.	5.1	57
46	Membrane Diffusion Measurements Do Not Detect Exchange between Asphaltene Aggregates and Solution Phase. <i>Energy & Fuels</i> , 2011, 25, 509-523.	5.1	56
47	Joint Industrial Case Study for Asphaltene Deposition. <i>Energy & Fuels</i> , 2013, 27, 1899-1908.	5.1	56
48	Drag coefficients for air bubbles rising along an inclined surface. <i>Chemical Engineering Science</i> , 1994, 49, 1905-1911.	3.8	55
49	Agglomerate stability in fluidized beds of glass beads and silica sand. <i>Powder Technology</i> , 2006, 165, 115-127.	4.2	55
50	Computational and Experimental Study of the Structure, Binding Preferences, and Spectroscopy of Nickel(II) and Vanadyl Porphyrins in Petroleum. <i>Journal of Physical Chemistry B</i> , 2010, 114, 2180-2188.	2.6	55
51	Lumped kinetics of hydrocracking of bitumen. <i>Fuel</i> , 1997, 76, 1025-1033.	6.4	54
52	Coupling of Mass Transfer and Reaction in Coking of Thin Films of an Athabasca Vacuum Residue. <i>Industrial & Engineering Chemistry Research</i> , 2001, 40, 3317-3324.	3.7	54
53	Quality of Distillates from Repeated Recycle of Residue. <i>Energy & Fuels</i> , 2002, 16, 477-484.	5.1	54
54	Potential Microbial Enhanced Oil Recovery Processes: A Critical Analysis. , 2008, , .		54

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55	Association Behavior of Pyrene Compounds as Models for Asphaltenes. Energy & Fuels, 2005, 19, 1268-1271.	5.1	53
56	Study of Asphaltene Adsorption on Kaolinite by X-ray Photoelectron Spectroscopy and Time-of-Flight Secondary Ion Mass Spectroscopy. Energy & Fuels, 2013, 27, 2465-2473.	5.1	53
57	Pyrene Derivatives of 2,2'-Bipyridine as Models for Asphaltenes: Synthesis, Characterization, and Supramolecular Organization. Energy & Fuels, 2008, 22, 715-720.	5.1	52
58	Coking Kinetics of Asphaltenes as a Function of Chemical Structure. Energy & Fuels, 2003, 17, 1048-1056.	5.1	51
59	Dibenzyl Sulfide Metabolism by White Rot Fungi. Applied and Environmental Microbiology, 2003, 69, 1320-1324.	3.1	51
60	Kinetics of Cracking and Devolatilization during Coking of Athabasca Residues. Industrial & Engineering Chemistry Research, 2004, 43, 5438-5445.	3.7	51
61	Selective transport and accumulation of alkanes by Rhodococcus erythropolis S+14He. Biotechnology and Bioengineering, 2002, 80, 650-659.	3.3	49
62	Observation of Liquid Crystals in Heavy Petroleum Fractions. Energy & Fuels, 2010, 24, 4327-4332.	5.1	49
63	Hexabenzocoronene Model Compounds for Asphaltene Fractions: Synthesis & Characterization. Energy & Fuels, 2006, 20, 2439-2447.	5.1	48
64	Volume of mixing and solubility of water in Athabasca bitumen at high temperature and pressure. Fluid Phase Equilibria, 2013, 358, 203-211.	2.5	48
65	Biological remediation of anthracene-contaminated soil in rotating bioreactors. Applied Microbiology and Biotechnology, 1994, 40, 933-940.	3.6	47
66	Role of Fine Solids in the Coking of Vacuum Residues. Energy & Fuels, 1997, 11, 1040-1043.	5.1	46
67	Kinetics of biodegradation of mixtures of polycyclic aromatic hydrocarbons. Applied Microbiology and Biotechnology, 2002, 60, 361-366.	3.6	46
68	Performance of Solvent Mixtures for Non-aqueous Extraction of Alberta Oil Sands. Energy & Fuels, 2015, 29, 2261-2267.	5.1	46
69	Coking of Hydroprocessing Catalyst by Residue Fractions of Bitumen. Energy & Fuels, 1999, 13, 1037-1045.	5.1	45
70	Molar Kinetics and Selectivity in Cracking of Athabasca Asphaltenes. Energy & Fuels, 2001, 15, 751-755.	5.1	45
71	New Vanadium Compounds in Venezuela Heavy Crude Oil Detected by Positive-ion Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry. Scientific Reports, 2014, 4, 5373.	3.3	44
72	Particle Capture and Plugging in Packed-Bed Reactors. Industrial & Engineering Chemistry Research, 1997, 36, 4620-4627.	3.7	43

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73	Pressure buildup in gas-liquid flow through packed beds due to deposition of fine particles. Canadian Journal of Chemical Engineering, 2002, 80, 346-354.	1.7	41
74	Associative π - π Interactions of Condensed Aromatic Compounds with Vanadyl or Nickel Porphyrin Complexes Are Not Observed in the Organic Phase. Energy & Fuels, 2008, 22, 2465-2469.	5.1	41
75	Physics in the oil sands of Alberta. Physics Today, 2009, 62, 31-35.	0.3	40
76	The phase behavior of Athabasca bitumen+toluene+water ternary mixtures. Fluid Phase Equilibria, 2014, 370, 75-84.	2.5	40
77	Adsorption of asphaltenes on kaolinite as an irreversible process. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 504, 280-286.	4.7	40
78	Effect of oxygen fluctuations on recombinant Escherichia coli fermentation. Biotechnology and Bioengineering, 1993, 41, 666-670.	3.3	38
79	Migration of Fine Solids into Product Bitumen from Solvent Extraction of Alberta Oilsands. Energy & Fuels, 2014, 28, 2925-2932.	5.1	37
80	Distributed Properties of Asphaltene Nanoaggregates in Crude Oils: A Review. Energy & Fuels, 2021, 35, 18078-18103.	5.1	37
81	Effect of feed zone in fed-batch fermentations of Saccharomyces cerevisiae. Biotechnology and Bioengineering, 1992, 40, 235-246.	3.3	36
82	Competitive Adsorption of Toluene and <i>n</i> -Alkanes at Binary Solution/Silica Interfaces. Journal of Physical Chemistry C, 2009, 113, 20355-20359.	3.1	36
83	Elucidation of structural information achievable for asphaltenes via collision-activated dissociation of their molecular ions in MS ⁿ experiments: A model compound study. Fuel, 2014, 133, 106-114.	6.4	36
84	High-pressure thermal cracking of n-hexadecane in aromatic solvents. Industrial & Engineering Chemistry Research, 1993, 32, 1864-1876.	3.7	35
85	Enhancement of Residue Hydroprocessing Catalysts by Doping with Alkali Metals. Energy & Fuels, 1997, 11, 1119-1126.	5.1	35
86	Use of a Novel Fluorinated Organosulfur Compound To Isolate Bacteria Capable of Carbon-Sulfur Bond Cleavage. Applied and Environmental Microbiology, 2004, 70, 1487-1493.	3.1	35
87	Effect of agglomerate properties on agglomerate stability in fluidized beds. Chemical Engineering Science, 2008, 63, 4245-4256.	3.8	35
88	Separation of Petroporphyrins from Asphaltenes by Chemical Modification and Selective Affinity Chromatography. Energy & Fuels, 2009, 23, 2600-2605.	5.1	35
89	Use of i.r. spectroscopy and nitrogen titration data in structural group analysis of bitumen. Fuel, 1987, 66, 749-752.	6.4	34
90	Lumped kinetics of structural groups: hydrotreating of heavy distillate. Industrial & Engineering Chemistry Research, 1990, 29, 505-512.	3.7	34

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91	Mechanical properties of hexadecane-water interfaces with adsorbed hydrophobic bacteria. <i>Colloids and Surfaces B: Biointerfaces</i> , 2008, 62, 273-279.	5.0	34
92	Effect of Chemical Structure on the Cracking and Coking of Archipelago Model Compounds Representative of Asphaltenes. <i>Energy & Fuels</i> , 2012, 26, 1828-1843.	5.1	34
93	Evidence for methane reactivity during coal pyrolysis and liquefaction. <i>Fuel</i> , 1990, 69, 1276-1282.	6.4	33
94	Surfactant inhibition of bacterial growth on solid anthracene. <i>Biodegradation</i> , 2000, 11, 341-347.	3.0	33
95	Mutations in the Central Cavity and Periplasmic Domain Affect Efflux Activity of the Resistance-Nodulation-Division Pump EmhB from <i>Pseudomonas fluorescens</i> cLP6a. <i>Journal of Bacteriology</i> , 2006, 188, 115-123.	2.2	33
96	Hydrophobic bacteria at the hexadecane-water interface: Examination of micrometre-scale interfacial properties. <i>Colloids and Surfaces B: Biointerfaces</i> , 2008, 67, 59-66.	5.0	32
97	Molecular- and cultivation-based analyses of microbial communities in oil field water and in microcosms amended with nitrate to control H ₂ S production. <i>Applied Microbiology and Biotechnology</i> , 2011, 89, 2027-2038.	3.6	32
98	Suppression of Addition Reactions during Thermal Cracking Using Hydrogen and Sulfided Iron Catalyst. <i>Energy & Fuels</i> , 2013, 27, 6637-6645.	5.1	32
99	Occlusion of Polyaromatic Compounds in Asphaltene Precipitates Suggests Porous Nanoaggregates. <i>Energy & Fuels</i> , 2013, 27, 1748-1751.	5.1	32
100	Deposition of Fine Particles in Packed Beds at Hydrotreating Conditions: A Role of Surface Chemistry. <i>Industrial & Engineering Chemistry Research</i> , 1999, 38, 4878-4888.	3.7	31
101	Liquid-Phase Behavior during the Cracking of Asphaltenes. <i>Industrial & Engineering Chemistry Research</i> , 2003, 42, 4101-4108.	3.7	31
102	Inhibition and Deactivation of Hydrodenitrogenation (HDN) Catalysts by Narrow-Boiling Fractions of Athabasca Coker Gas Oil. <i>Energy & Fuels</i> , 2004, 18, 539-546.	5.1	31
103	Determination of Hansen Solubility Parameters of Asphaltene Model Compounds. <i>Energy & Fuels</i> , 2018, 32, 11296-11303.	5.1	31
104	Hydroprocessing of narrow-boiling gas oil fractions: dependence of reaction kinetics on molecular weight. <i>Industrial & Engineering Chemistry Research</i> , 1990, 29, 725-730.	3.7	30
105	Experimental simulation of large-scale bioreactor environments using a Monte Carlo method. <i>Canadian Journal of Chemical Engineering</i> , 1991, 69, 513-519.	1.7	29
106	High-pressure thermal cracking of n-hexadecane in Tetralin. <i>Energy & Fuels</i> , 1993, 7, 960-967.	5.1	29
107	Adhesion to the hydrocarbon phase increases phenanthrene degradation by <i>Pseudomonas fluorescens</i> LP6a. <i>Biodegradation</i> , 2011, 22, 485-496.	3.0	29
108	Carbon disulfide reagent allows the characterization of nonpolar analytes by atmospheric pressure chemical ionization mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , 2011, 25, 1924-1928.	1.5	29

#	ARTICLE	IF	CITATIONS
109	Role of catalyst in hydrocracking of residues from Alberta bitumens. Energy & Fuels, 1992, 6, 478-485.	5.1	28
110	Melting and Fluid Behavior of Asphaltene Films at 200~500 Å°C. Energy & Fuels, 2004, 18, 1419-1423.	5.1	28
111	Models of Hepatic Drug Elimination. Drug Metabolism Reviews, 1992, 24, 49-88.	3.6	27
112	Role of hydrotreating products in deposition of fine particles in reactors. Fuel, 2001, 80, 1079-1085.	6.4	27
113	Resistant nitrogen compounds in hydrotreated gas oil from Athabasca bitumen. Energy & Fuels, 1991, 5, 791-795.	5.1	26
114	In Situ Observation of Mesophase Formation and Coalescence in Catalytic Hydroconversion of Vacuum Residue Using a Stirred Hot-Stage Reactor. Energy & Fuels, 2012, 26, 3167-3178.	5.1	26
115	Interactions between thermal and catalytic reactions in mild hydrocracking of gas oil. Energy & Fuels, 1989, 3, 716-722.	5.1	25
116	Modeling of mass transfer and thermal cracking during the coking of Athabasca residues. Chemical Engineering Science, 2008, 63, 1683-1691.	3.8	25
117	Dispersion of Asphaltene Nanoaggregates and the Role of Rayleigh Scattering in the Absorption of Visible Electromagnetic Radiation by These Nanoaggregates. Energy & Fuels, 2013, 27, 680-693.	5.1	25
118	Characterization of Contaminated Soils Using Confocal Laser Scanning Microscopy and Cryogenic-Scanning Electron Microscopy. Environmental Science & Technology, 2000, 34, 3408-3414.	10.0	24
119	Depolarized Light Scattering for Study of Heavy Oil and Mesophase Formation Mechanisms. Energy & Fuels, 2012, 26, 5408-5420.	5.1	24
120	Fluid Properties at Coking Process Conditions. Industrial & Engineering Chemistry Research, 2004, 43, 2929-2935.	3.7	23
121	Spatially resolved organic coating on clay minerals in bitumen froth revealed by atomic force microscopy adhesion mapping. Fuel, 2017, 191, 283-289.	6.4	23
122	Sulfide persistence in oil field waters amended with nitrate and acetate. Journal of Industrial Microbiology and Biotechnology, 2009, 36, 1499-1511.	3.0	22
123	Stability of agglomerates made from fluid coke at ambient temperature. Powder Technology, 2011, 209, 53-64.	4.2	22
124	Pyrolysis of 1,3-butanediol as a model reaction for wood liquefaction in supercritical water. Canadian Journal of Chemical Engineering, 1987, 65, 645-650.	1.7	21
125	Toluene-insoluble fraction from thermal cracking of Athabasca gas oil: formation of a liquid-in-oil emulsion that wets hydrophobic dispersed solids. Fuel, 1998, 77, 1647-1653.	6.4	21
126	Sulfur from benzothiophene and alkylbenzothiophenes supports growth of Rhodococcus sp. strain JVH1. Biodegradation, 2007, 18, 541-549.	3.0	21

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127	Flocculation of Silica Particles from a Model Oil Solution: Effect of Adsorbed Asphaltenes. <i>Energy & Fuels</i> , 2010, 24, 3616-3623.	5.1	21
128	Density functional theory investigation of the effect of axial coordination and annelation on the absorption spectroscopy of nickel(II) and vanadyl porphyrins relevant to bitumen and crude oils. <i>Canadian Journal of Chemistry</i> , 2013, 91, 872-878.	1.1	21
129	Lessons Learned from a Decade-Long Assessment of Asphaltenes by Ultrahigh-Resolution Mass Spectrometry and Implications for Complex Mixture Analysis. <i>Energy & Fuels</i> , 2021, 35, 16335-16376.	5.1	21
130	Physical modeling of animal cell damage by hydrodynamic forces in suspension cultures. <i>Biotechnology and Bioengineering</i> , 1992, 40, 1277-1281.	3.3	20
131	Kinetics of Hydrocracking and Hydrotreating of Coker and Oilsands Gas Oils. <i>Petroleum Science and Technology</i> , 2003, 21, 997-1015.	1.5	20
132	Thermal Cracking of Substituted Cholestane- α -Benzoquinoline Asphaltene Model Compounds. <i>Energy & Fuels</i> , 2012, 26, 3592-3603.	5.1	20
133	Evidence for Lidocaine-Induced Enzyme Inactivation. <i>Journal of Pharmaceutical Sciences</i> , 1989, 78, 1003-1008.	3.3	19
134	Measurement of Cracking Kinetics of Pure Model Compounds by Thermogravimetric Analysis. <i>Energy & Fuels</i> , 2010, 24, 3998-4004.	5.1	19
135	Regular Solution Theories Are Not Appropriate for Model Compounds for Petroleum Asphaltenes. <i>Energy & Fuels</i> , 2011, 25, 737-746.	5.1	19
136	Corrosion-Fouling of 316 Stainless Steel and Pure Iron by Hot Oil. <i>Energy & Fuels</i> , 2011, 25, 4540-4551.	5.1	19
137	Evaluating steady-state and time-resolved fluorescence as a tool to study the behavior of asphaltene in toluene. <i>Photochemical and Photobiological Sciences</i> , 2014, 13, 917-928.	2.9	19
138	On correlating water solubility in ill-defined hydrocarbons. <i>Fuel</i> , 2014, 134, 644-658.	6.4	18
139	Addition Reactions of Olefins to Asphaltene Model Compounds. <i>Energy & Fuels</i> , 2015, 29, 1494-1502.	5.1	18
140	Influence of hydrothermal treatment on filterability of fine solids in bitumen froth. <i>Fuel</i> , 2016, 180, 314-323.	6.4	18
141	Structure- α -Reactivity Relationships for Petroleum Asphaltenes. <i>Energy & Fuels</i> , 2022, 36, 4370-4380.	5.1	18
142	Kinetics of High-Conversion Hydrocracking of Bitumen. <i>Energy & Fuels</i> , 1997, 11, 402-410.	5.1	17
143	Adaptive multirate estimation and control of nutrient levels in a fed- α -batch fermentation using off- α -line and on- α -line measurements. <i>Canadian Journal of Chemical Engineering</i> , 1997, 75, 562-573.	1.7	17
144	Protocols To Enhance Biodegradation of Hydrocarbon Contaminants in Soil. <i>Bioremediation Journal</i> , 2000, 4, 249-257.	2.0	17

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145	Use of ¹³ C Tracers to Determine Mass-Transfer Limitations on Thermal Cracking of Thin Films of Bitumen. <i>Energy & Fuels</i> , 2001, 15, 1087-1093.	5.1	17
146	Agglomeration and Deposition of Coke during Cracking of Petroleum Vacuum Residue. <i>Energy & Fuels</i> , 2007, 21, 1205-1211.	5.1	17
147	Selectivity among organic sulfur compounds in one- and two-liquid-phase cultures of <i>Rhodococcus</i> sp. strain JVH1. <i>Biodegradation</i> , 2007, 18, 473-480.	3.0	17
148	A viscosity-conversion model for thermal cracking of heavy oils. <i>Fuel</i> , 2017, 197, 82-90.	6.4	17
149	Irreversible Adsorption of Asphaltenes on Kaolinite: Influence of Dehydroxylation. <i>Energy & Fuels</i> , 2017, 31, 9328-9336.	5.1	17
150	Transport and Reaction Processes in Bioremediation of Organic Contaminants. 1. Review of Bacterial Degradation and Transport. <i>International Journal of Chemical Reactor Engineering</i> , 2003, 1, .	1.1	16
151	Evaluation of co-volume mixing rules for bitumen liquid density and bubble pressure estimation. <i>Fluid Phase Equilibria</i> , 2010, 293, 87-100.	2.5	16
152	Solvent removal from cyclohexane-extracted oil sands gangue. <i>Canadian Journal of Chemical Engineering</i> , 2016, 94, 408-414.	1.7	16
153	Quantification of three lidocaine metabolites and their conjugates. <i>Pharmaceutical Research</i> , 1990, 07, 504-507.	3.5	15
154	Gas-solid mass transfer in a rotating drum. <i>Canadian Journal of Chemical Engineering</i> , 1998, 76, 224-232.	1.7	15
155	Measurement of Efficiency of Distribution of Liquid Feed in a Gas-Solid Fluidized Bed Reactor. <i>International Journal of Chemical Reactor Engineering</i> , 2003, 1, .	1.1	15
156	Structures of Water Molecules at Solvent/Silica Interfaces. <i>Langmuir</i> , 2010, 26, 16397-16400.	3.5	15
157	Influence of Depressurization and Cooling on the Formation and Development of Mesophase. <i>Energy & Fuels</i> , 2011, 25, 5541-5548.	5.1	15
158	Minimization of Coke in Thermal Cracking of Athabasca Vacuum Residue in a High-Temperature Short-Residence Time Continuous Flow Aerosol Reactor. <i>Energy & Fuels</i> , 2012, 26, 6292-6299.	5.1	15
159	Incorporation of steroidal biomarkers into petroleum model compounds. <i>Journal of Physical Organic Chemistry</i> , 2012, 25, 597-606.	1.9	15
160	Thiophene mitigates high temperature fouling of metal surfaces in oil refining. <i>Fuel</i> , 2015, 139, 411-424.	6.4	15
161	Substrate inactivation of enzymes in vitro and in vivo. <i>Biotechnology Advances</i> , 1989, 7, 527-575.	11.7	14
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