

Roda Bounaceur

List of Publications by Year in descending order

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docs citations

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times ranked

3277
citing authors

#	ARTICLE	IF	CITATIONS
1	Development of a Detailed Kinetic Model for the Oxidation of <i>n</i> -Butane in the Liquid Phase. Journal of Physical Chemistry B, 2021, 125, 6955-6967.	1.2	8
2	The Deep Composition of Uranus and Neptune from In Situ Exploration and Thermochemical Modeling. Space Science Reviews, 2020, 216, 1.	3.7	16
3	New chemical scheme for giant planet thermochemistry. Astronomy and Astrophysics, 2020, 634, A78.	2.1	34
4	Influence of H ₂ S on the thermal cracking of alkylbenzenes at high pressure (70 MPa) and moderate temperature (583–623 K). Journal of Analytical and Applied Pyrolysis, 2019, 140, 423-433.	2.6	6
5	Establishing the Maximum Carbon Number for Reliable Quantitative Gas Chromatographic Analysis of Heavy Ends Hydrocarbons. Part 3. Coupled Pyrolysis-GC Modeling. Energy & Fuels, 2019, 33, 2045-2056.	2.5	1
6	Reduced chemical scheme for modelling warm to hot hydrogen-dominated atmospheres. Astronomy and Astrophysics, 2019, 624, A58.	2.1	26
7	Thermal cracking of <i>n</i> -butylbenzene at high pressure: Experimental study and kinetic modelling. Journal of Analytical and Applied Pyrolysis, 2018, 133, 234-245.	2.6	13
8	Kinetic parameters for the thermal cracking of simple hydrocarbons: From laboratory to geological time-temperature conditions. Journal of Analytical and Applied Pyrolysis, 2017, 125, 40-49.	2.6	15
9	Kinetic modeling of 1-methylnaphthalene pyrolysis at high pressure (100 bar). Journal of Analytical and Applied Pyrolysis, 2017, 124, 542-562.	2.6	13
10	Thermal cracking of 1- <i>n</i> -butyldecalin at high pressure (100 bar). Journal of Analytical and Applied Pyrolysis, 2017, 123, 204-215.	2.6	3
11	Evaluating the effects of CO ₂ capture benchmarks on efficiency and costs of membrane systems for post-combustion capture: A parametric simulation study. International Journal of Greenhouse Gas Control, 2017, 63, 449-461.	2.3	23
12	Rigorous variable permeability modelling and process simulation for the design of polymeric membrane gas separation units: MEMSIC simulation tool. Journal of Membrane Science, 2017, 523, 77-91.	4.1	50
13	Prediction of Auto-Ignition Temperatures and Delays for Gas Turbine Applications. Journal of Engineering for Gas Turbines and Power, 2016, 138, .	0.5	17
14	Development of a Model for Auto-Ignition Delays and its Use for the Prediction of Premix Combustion Reliability. , 2016, , .		0
15	Interplay of inlet temperature and humidity on energy penalty for CO ₂ post-combustion capture: Rigorous analysis and simulation of a single stage gas permeation process. Energy, 2016, 116, 517-525.	4.5	4
16	Data supporting the validation of a simulation model for multi-component gas separation in polymeric membranes. Data in Brief, 2016, 9, 776-780.	0.5	2
17	Influence of pressure (100 Pa–100 Mpa) on the pyrolysis of an alkane at moderate temperature (603 K). Journal of Analytical and Applied Pyrolysis, 2016, 120, 442-451.	2.6	8
18	Thermal cracking of <i>n</i> -butylcyclohexane at high pressure (100 bar)–Part 2: Mechanistic modeling. Journal of Analytical and Applied Pyrolysis, 2016, 120, 174-185.	2.6	16

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19	Intramolecular effects on the kinetics of unimolecular reactions of \hat{I}^2 -HOROÖ™ and HOQÖ™OOH radicals. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 12231-12251.	1.3	57
20	Thermal cracking of n -butylcyclohexane at high pressure (100 bar)â€”Part 1: Experimental study. <i>Journal of Analytical and Applied Pyrolysis</i> , 2016, 117, 1-16.	2.6	19
21	Pyrolysis of n- octane at very low concentration and low temperature. <i>Journal of Analytical and Applied Pyrolysis</i> , 2016, 117, 282-289.	2.6	5
22	Prediction of Auto-Ignition Temperatures and Delays for Gas Turbine Applications. , 2015, , .		0
23	New chemical scheme for studying carbon-rich exoplanet atmospheres. <i>Astronomy and Astrophysics</i> , 2015, 577, A33.	2.1	64
24	Pushing the limits of intensified CO2 post-combustion capture by gasâ€”liquid absorption through a membrane contactor. <i>Chemical Engineering and Processing: Process Intensification</i> , 2015, 91, 7-22.	1.8	28
25	Experimental and modeling study of burning velocities for alkyl aromatic components relevant to diesel fuels. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 341-348.	2.4	43
26	Determining predictive uncertainties and global sensitivities for large parameter systems: A case study for n -butane oxidation. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 607-616.	2.4	31
27	The oxidation of large alkylbenzenes: An experimental and modeling study. <i>Proceedings of the Combustion Institute</i> , 2015, 35, 349-356.	2.4	34
28	Measurements of Laminar Burning Velocities above Atmospheric Pressure Using the Heat Flux Methodâ€”Application to the Case of <i>n</i> -Pentane. <i>Energy & Fuels</i> , 2015, 29, 398-404.	2.5	49
29	Experimental and Modeling Investigation of the Low-Temperature Oxidation of Dimethyl Ether. <i>Journal of Physical Chemistry A</i> , 2015, 119, 7905-7923.	1.1	85
30	Kinetic modelling of char gasification by accounting for the evolution of the reactive surface area. <i>Chemical Engineering Science</i> , 2015, 138, 281-290.	1.9	25
31	Combustion and Oxidation Kinetics of Alternative Gas Turbines Fuels. , 2014, , .		6
32	Laminar burning velocity of gasolines with addition of ethanol. <i>Fuel</i> , 2014, 115, 162-169.	3.4	248
33	Kinetic study of abatement of low concentration of dibenzofuran by oxidation â€” Effects of co-reactants. <i>Chemical Engineering Journal</i> , 2013, 218, 154-163.	6.6	8
34	Mechanistic modeling of the thermal cracking of methylcyclohexane near atmospheric pressure, from 523 to 1273K: Identification of aromatization pathways. <i>Journal of Analytical and Applied Pyrolysis</i> , 2013, 103, 240-254.	2.6	27
35	Establishing the Maximum Carbon Number for Reliable Quantitative Gas Chromatographic Analysis of Heavy Ends Hydrocarbons. Part 2. Migration and Separation Gas Chromatography Modeling. <i>Energy & Fuels</i> , 2013, 27, 2336-2350.	2.5	6
36	A chemical model for the atmosphere of hot Jupiters. <i>Astronomy and Astrophysics</i> , 2012, 546, A43.	2.1	181

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37	Membrane contactors for intensified post combustion carbon dioxide capture by gas-liquid absorption in MEA: A parametric study. <i>Chemical Engineering Research and Design</i> , 2012, 90, 2325-2337.	2.7	14
38	Establishing the Maximum Carbon Number for Reliable Quantitative Gas Chromatographic Analysis of Heavy Ends Hydrocarbons. Part 1: Low-Conversion Thermal Cracking Modeling. <i>Energy & Fuels</i> , 2012, 26, 2600-2610.	2.5	8
39	JTHERGAS: Thermodynamic estimation from 2D graphical representations of molecules. <i>Energy</i> , 2012, 43, 161-171.	4.5	12
40	Experimental and modeling study of the oxidation of n-butylbenzene. <i>Combustion and Flame</i> , 2012, 159, 1399-1416.	2.8	59
41	Evaluating the intensification potential of membrane contactors for gas absorption in a chemical solvent: A generic one-dimensional methodology and its application to CO ₂ absorption in monoethanolamine. <i>Journal of Membrane Science</i> , 2012, 389, 1-16.	4.1	25
42	Towards cleaner combustion engines through groundbreaking detailed chemical kinetic models. <i>Chemical Society Reviews</i> , 2011, 40, 4762.	18.7	111
43	Measurements of Laminar Flame Velocity for Components of Natural Gas. <i>Energy & Fuels</i> , 2011, 25, 3875-3884.	2.5	181
44	Thermal evolution of n- and iso-alkanes in oils. Part 1: Pyrolysis model for a mixture of 78 alkanes (C ₁ -C ₃₂) including 13,206 free radical reactions. <i>Organic Geochemistry</i> , 2011, 42, 439-450.	0.9	27
45	DME as a Potential Alternative Fuel for Gas Turbines: A Numerical Approach to Combustion and Oxidation Kinetics. , 2011, , .		7
46	Laminar Flame Velocity of Components of Natural Gas. , 2011, , .		2
47	Modelling intra-particle phenomena of biomass pyrolysis. <i>Chemical Engineering Research and Design</i> , 2011, 89, 2136-2146.	2.7	56
48	Oxidation of small unsaturated methyl and ethyl esters. <i>International Journal of Chemical Kinetics</i> , 2011, 43, 204-218.	1.0	32
49	Thermal and Kinetic Impact of CO, CO ₂ , and H ₂ O on the Postoxidation of IC-Engine Exhaust Gases. <i>Combustion Science and Technology</i> , 2010, 182, 39-59.	1.2	23
50	Ethanol as an Alternative Fuel in Gas Turbines: Combustion and Oxidation Kinetics. , 2010, , .		5
51	An extended mechanism including high pressure conditions (700bar) for toluene pyrolysis. <i>Journal of Analytical and Applied Pyrolysis</i> , 2010, 87, 236-247.	2.6	21
52	Adiabatic flame temperature from biofuels and fossil fuels and derived effect on NO _x emissions. <i>Fuel Processing Technology</i> , 2010, 91, 229-235.	3.7	104
53	An experimental and kinetic modeling study of the autoignition of 1-methylnaphthalene/air and 1-methylnaphthalene/n-decane/air mixtures at elevated pressures. <i>Combustion and Flame</i> , 2010, 157, 1976-1988.	2.8	67
54	Modelling of Weak Acid Conversion in an EDI Cell. <i>Separation Science and Technology</i> , 2010, 45, 1015-1024.	1.3	4

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55	Reassessment of the Kinetic Influence of Toluene on <i>n</i> -Alkane Pyrolysis. Energy & Fuels, 2010, 24, 3817-3830.	2.5	19
56	New insights into secondary gas generation from the thermal cracking of oil: Methylated monoaromatics. A kinetic approach using 1,2,4-trimethylbenzene. Part I: A mechanistic kinetic model. Organic Geochemistry, 2010, 41, 146-167.	0.9	57
57	Gas Turbines and Biodiesel: A Clarification of the Relative NOX Indices of FAME, Gasoil, and Natural Gas. , 2009, , .		2
58	Influence of EGR compounds on the oxidation of an HCCI-diesel surrogate. Proceedings of the Combustion Institute, 2009, 32, 2851-2859.	2.4	31
59	Biogas, membranes and carbon dioxide capture. Journal of Membrane Science, 2009, 328, 11-14.	4.1	106
60	Influence of the position of the double bond on the autoignition of linear alkenes at low temperature. Proceedings of the Combustion Institute, 2009, 32, 387-394.	2.4	66
61	A hybrid process combining oxygen enriched air combustion and membrane separation for post-combustion carbon dioxide capture. Separation and Purification Technology, 2009, 68, 30-36.	3.9	70
62	Modeling of autoignition and NO sensitization for the oxidation of IC engine surrogate fuels. Combustion and Flame, 2009, 156, 505-521.	2.8	61
63	CO ₂ /N ₂ Reverse Selective Gas Separation Membranes: Technological Opportunities and Scientific Challenges. Industrial & Engineering Chemistry Research, 2009, 48, 3700-3701.	1.8	21
64	Kinetic modelling of a surrogate diesel fuel applied to 3D auto-ignition in HCCI engines. International Journal of Vehicle Design, 2007, 44, 124.	0.1	28
65	CHEMICAL IMPACT OF CO AND H ₂ ADDITION ON THE AUTO-IGNITION DELAY OF HOMOGENEOUS N-HEPTANE/AIR MIXTURES. Combustion Science and Technology, 2007, 179, 1937-1962.	1.2	27
66	Primary Mechanism of the Thermal Decomposition of Tricyclodecane. Journal of Physical Chemistry A, 2006, 110, 11298-11314.	1.1	82
67	Membrane processes for post-combustion carbon dioxide capture: A parametric study. Energy, 2006, 31, 2556-2570.	4.5	260
68	Experimental and modeling study of the oxidation of xylenes. International Journal of Chemical Kinetics, 2006, 38, 284-302.	1.0	88
69	Progress toward a unified detailed kinetic model for the autoignition of alkanes from C4 to C10 between 600 and 1200 K. Combustion and Flame, 2005, 142, 170-186.	2.8	272
70	Experimental and modeling study of the oxidation of toluene. International Journal of Chemical Kinetics, 2005, 37, 25-49.	1.0	176
71	Experimental Study and Modeling of the Role of Hydronaphthalenics on the Thermal Stability of Hydrocarbons under Laboratory and Geological Conditions. Industrial & Engineering Chemistry Research, 2005, 44, 8972-8987.	1.8	17
72	Experimental and modelling investigation of the thermal decomposition of n-dodecane. Journal of Analytical and Applied Pyrolysis, 2004, 71, 865-881.	2.6	118

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73	Contribution to Scramjet Active Cooling Analysis Using N-dodecane Decomposition Model. , 2003, , .		16
74	Inhibiting Effect of Tetralin on the Pyrolytic Decomposition of Hexadecane. Comparison with Toluene. Industrial & Engineering Chemistry Research, 2002, 41, 4689-4701.	1.8	31
75	Up to what temperature is petroleum stable? New insights from a 5200 free radical reactions model. Organic Geochemistry, 2002, 33, 1487-1499.	0.9	54
76	Modeling of hydrocarbons pyrolysis at low temperature. Automatic generation of free radicals mechanisms. Journal of Analytical and Applied Pyrolysis, 2002, 64, 103-122.	2.6	51
77	Mechanistic Modeling of the Thermal Cracking of Tetralin. Industrial & Engineering Chemistry Research, 2000, 39, 4152-4165.	1.8	42
78	Modeling the Laminar Flame Speed of Natural Gas and Gasoline Surrogates. , 0, , .		13
79	Reactive Transport and Its Implications on Heavy Oil HTGC Analysis. A Coupled Thermo-Hydro-Chemical (THC) Multiphysics Modelling Approach. , 0, , .		0