Jorge Ancheyta

List of Publications by Year
in descending order

135 papers	6,116 citations	71102 41 h-index	85541 71 g-index
141 all docs	141 docs citations	141 times ranked	2771 citing authors

#	Article	IF	Citations
1	A review of recent advances on process technologies for upgrading of heavy oils and residua. Fuel, 2007, 86, 1216-1231.	6.4	794
2	Hydroprocessing of heavy petroleum feeds: Tutorial. Catalysis Today, 2005, 109, 3-15.	4.4	197
3	Kinetic modeling of hydrocracking of heavy oil fractions: A review. Catalysis Today, 2005, 109, 76-92.	4.4	195
4	Current situation of emerging technologies for upgrading of heavy oils. Catalysis Today, 2014, 220-222, 248-273.	4.4	169
5	A review of experimental procedures for heavy oil hydrocracking with dispersed catalyst. Catalysis Today, 2014, 220-222, 274-294.	4.4	165
6	Kinetic Model for Moderate Hydrocracking of Heavy Oils. Industrial & Engineering Chemistry Research, 2005, 44, 9409-9413.	3.7	144
7	Changes in Asphaltene Properties during Hydrotreating of Heavy Crudes. Energy & Fuels, 2003, 17, 1233-1238.	5.1	141
8	Review on criteria to ensure ideal behaviors in trickle-bed reactors. Applied Catalysis A: General, 2009, 355, 1-19.	4.3	132
9	Methods for determining asphaltene stability in crude oils. Fuel, 2017, 188, 530-543.	6.4	130
10	Testing various mixing rules for calculation of viscosity of petroleum blends. Fuel, 2011, 90, 3561-3570.	6.4	126
11	Combined process schemes for upgrading of heavy petroleum. Fuel, 2012, 100, 110-127.	6.4	125
12	Characterization of Asphaltenes from Hydrotreated Products by SEC, LDMS, MALDI, NMR, and XRD. Energy & Fuels, 2007, 21, 2121-2128.	5.1	124
13	Pyrolysis kinetics of atmospheric residue and its SARA fractions. Fuel, 2011, 90, 3602-3607.	6.4	108
14	Thermogravimetric determination of coke from asphaltenes, resins and sediments and coking kinetics of heavy crude asphaltenes. Catalysis Today, 2010, 150, 272-278.	4.4	104
15	Modeling of Hydrodesulfurization (HDS), Hydrodenitrogenation (HDN), and the Hydrogenation of Aromatics (HDA) in a Vacuum Gas Oil Hydrotreater. Energy & Fuels, 2004, 18, 789-794.	5.1	92
16	Effect of alumina preparation on hydrodemetallization and hydrodesulfurization of Maya crude. Catalysis Today, 2004, 98, 151-160.	4.4	70
17	Catalyst Deactivation during Hydroprocessing of Maya Heavy Crude Oil. 1. Evaluation at Constant Operating Conditions. Energy & Fuels, 2002, 16, 1438-1443.	5.1	69
18	Simulation of an isothermal hydrodesulfurization small reactor with different catalyst particle shapes. Catalysis Today, 2004, 98, 243-252.	4.4	69

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19	Dynamic Modeling and Simulation of Catalytic Hydrotreating Reactors. Energy & Fuels, 2006, 20, 936-945.	5.1	65
20	Sensitivity analysis based methodology to estimate the best set of parameters for heterogeneous kinetic models. Chemical Engineering Journal, 2007, 128, 85-93.	12.7	64
21	Required Viscosity Values To Ensure Proper Transportation of Crude Oil by Pipeline. Energy & Fuels, 2016, 30, 8850-8854.	5.1	63
22	Characteristics of Maya crude hydrodemetallization and hydrodesulfurization catalysts. Catalysis Today, 2005, 104, 86-93.	4.4	62
23	Modeling of hydrotreating catalyst deactivation for heavy oil hydrocarbons. Fuel, 2018, 225, 118-133.	6.4	62
24	Use of Hydrogen Donors for Partial Upgrading of Heavy Petroleum. Energy & Fuels, 2016, 30, 9050-9060.	5.1	61
25	Aluminaâ€"titania binary mixed oxide used as support of catalysts for hydrotreating of Maya heavy crude. Applied Catalysis A: General, 2003, 244, 141-153.	4.3	60
26	Changes in Apparent Reaction Order and Activation Energy in the Hydrodesulfurization of Real Feedstocks. Energy & Fuels, 2002, 16, 189-193.	5.1	59
27	Kinetic model for hydrocracking of heavy oil in a CSTR involving short term catalyst deactivation. Fuel, 2012, 100, 193-199.	6.4	59
28	Comparison of Probability Distribution Functions for Fitting Distillation Curves of Petroleum. Energy & Fuels, 2007, 21, 2955-2963.	5.1	58
29	Steadyâ€State and Dynamic Reactor Models for Hydrotreatment of Oil Fractions: A Review. Catalysis Reviews - Science and Engineering, 2009, 51, 485-607.	12.9	58
30	Mathematical modeling and simulation of hydrotreating reactors: Cocurrent versus countercurrent operations. Applied Catalysis A: General, 2007, 332, 8-21.	4.3	57
31	Carbon and metal deposition during the hydroprocessing of Maya crude oil. Catalysis Today, 2014, 220-222, 97-105.	4.4	57
32	A Review of Process Aspects and Modeling of Ebullated Bed Reactors for Hydrocracking of Heavy Oils. Catalysis Reviews - Science and Engineering, 2010, 52, 60-105.	12.9	54
33	Dynamic modeling and simulation of hydrotreating of gas oil obtained from heavy crude oil. Applied Catalysis A: General, 2012, 425-426, 13-27.	4.3	53
34	Hydrocracking of Maya crude oil in a slurry-phase batch reactor. II. Effect of catalyst load. Fuel, 2014, 130, 263-272.	6.4	53
35	Kinetics of asphaltenes conversion during hydrotreating of Maya crude. Catalysis Today, 2005, 109, 99-103.	4.4	52
36	Application of continuous kinetic lumping modeling to moderate hydrocracking of heavy oil. Applied Catalysis A: General, 2009, 365, 237-242.	4.3	50

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37	Comparison of approaches to determine hydrogen consumption during catalytic hydrotreating of oil fractions. Fuel, 2011, 90, 3593-3601.	6.4	50
38	NiMo supported acidic catalysts for heavy oil hydroprocessing. Catalysis Today, 2009, 141, 168-175.	4.4	49
39	Effect of hydrotreating conditions on Maya asphaltenes composition and structural parameters. Catalysis Today, 2005, 109, 178-184.	4.4	47
40	Modeling of Slurry-Phase Reactors for Hydrocracking of Heavy Oils. Energy & Fuels, 2016, 30, 2525-2543.	5.1	45
41	Heavy crude oil hydroprocessing: A zeolite-based CoMo catalyst and its spent catalyst characterization. Catalysis Today, 2008, 130, 411-420.	4.4	43
42	Experimental Methods for Developing Kinetic Models for Hydrocracking Reactions with Slurry-Phase Catalyst Using Batch Reactors. Energy & Fuels, 2016, 30, 4419-4437.	5.1	43
43	A batch reactor study to determine effectiveness factors of commercial HDS catalyst. Catalysis Today, 2005, 104, 70-75.	4.4	42
44	A comparative study for heavy oil hydroprocessing catalysts at micro-flow and bench-scale reactors. Catalysis Today, 2005, 109, 24-32.	4.4	40
45	Heavy oil hydroprocessing over supported NiMo sulfided catalyst: An inhibition effect by added H2S. Fuel, 2007, 86, 1263-1269.	6.4	39
46	On the effect of reaction conditions on liquid phase sulfiding of a NiMo HDS catalyst. Catalysis Today, 2004, 98, 75-81.	4.4	37
47	Hydrotreating of diluted Maya crude with NiMo/Al2O3-TiO2 catalysts: effect of diluent composition. Catalysis Today, 2004, 98, 171-179.	4.4	36
48	Alumina-silica binary mixed oxide used as support of catalysts for hydrotreating of Maya heavy crude. Applied Catalysis A: General, 2003, 250, 231-238.	4.3	34
49	Modeling the kinetics of parallel thermal and catalytic hydrotreating of heavy oil. Fuel, 2014, 138, 27-36.	6.4	34
50	Sensitivity analysis of kinetic parameters for heavy oil hydrocracking. Fuel, 2019, 241, 836-844.	6.4	33
51	Pyrolysis Kinetics of Heavy Oil Asphaltenes under Steam Atmosphere at Different Pressures. Energy & Fuels, 2018, 32, 1132-1138.	5.1	32
52	Kinetic models for Fischer-Tropsch synthesis for the production of clean fuels. Catalysis Today, 2020, 353, 3-16.	4.4	32
53	Catalysts for hydroprocessing of Maya heavy crude. Applied Catalysis A: General, 2003, 253, 125-134.	4.3	31
54	Comparison of hydrocracking kinetic models based on SARA fractions obtained in slurry-phase reactor. Fuel, 2019, 241, 495-505.	6.4	31

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55	Cumene cracking functionalities on sulfided Co(Ni)Mo/TiO2-SiO2 catalysts. Applied Catalysis A: General, 2004, 258, 215-225.	4.3	30
56	Vaporâ˘'Liquid Equilibrium Study in Trickle-Bed Reactors. Industrial & Engineering Chemistry Research, 2009, 48, 1096-1106.	3.7	30
57	Modeling of CSTR and SPR small-scale isothermal reactors for heavy oil hydrocracking and hydrotreating. Fuel, 2018, 216, 852-860.	6.4	30
58	Kinetic modeling of aquathermolysis for upgrading of heavy oils. Fuel, 2022, 310, 122286.	6.4	30
59	Modeling the effect of pressure and temperature on the hydrocracking of heavy crude oil by the continuous kinetic lumping approach. Applied Catalysis A: General, 2010, 382, 205-212.	4.3	29
60	Pressure and temperature effects on the hydrodynamic characteristics of ebullated-bed systems. Catalysis Today, 2005, 109, 205-213.	4.4	27
61	Kinetics of thermal hydrocracking of heavy oils under moderate hydroprocessing reaction conditions. Fuel, 2013, 110, 83-88.	6.4	27
62	Simulation and analysis of different quenching alternatives for an industrial vacuum gasoil hydrotreater. Chemical Engineering Science, 2008, 63, 662-673.	3.8	26
63	Hydrotreating of Maya Crude Oil: I. Effect of Support Composition and Its Pore-diameter on Asphaltene Conversion. Petroleum Science and Technology, 2007, 25, 187-199.	1.5	25
64	Dynamic modeling and simulation of a naphtha catalytic reforming reactor. Applied Mathematical Modelling, 2015, 39, 764-775.	4.2	25
65	Comparison of mixing rules based on binary interaction parameters for calculating viscosity of crude oil blends. Fuel, 2019, 249, 198-205.	6.4	24
66	Comparison between refinery processes for heavy oil upgrading: a future fuel demand. International Journal of Oil, Gas and Coal Technology, 2008, 1, 250.	0.2	23
67	Exploratory Study for the Upgrading of Transport Properties of Heavy Oil by Slurry-Phase Hydrocracking. Energy & Fuels, 2015, 29, 9-15.	5.1	23
68	Modeling, simulation, and parametric sensitivity analysis of a commercial slurry-phase reactor for heavy oil hydrocracking. Fuel, 2019, 244, 258-268.	6.4	23
69	Process heat integration of a heavy crude hydrotreatment plant. Catalysis Today, 2005, 109, 214-218.	4.4	22
70	On the detailed solution and application of the continuous kinetic lumping modeling to hydrocracking of heavy oils. Fuel, 2011, 90, 3542-3550.	6.4	22
71	Thermogravimetric Determination and Pyrolysis Thermodynamic Parameters of Heavy Oils and Asphaltenes. Energy & Fuels, 2017, 31, 10566-10575.	5.1	22
72	A batch reactor study of the effect of deasphalting on hydrotreating of heavy oil. Catalysis Today, 2010, 150, 264-271.	4.4	21

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73	Hydrodesulfurization activity of used hydrotreating catalysts. Fuel Processing Technology, 2013, 106, 453-459.	7.2	21
74	Maya crude oil hydrotreating reaction in a batch reactor using alumina-supported NiMo carbide and nitride as catalysts. Catalysis Today, 2014, 220-222, 318-326.	4.4	21
75	SARA-based kinetic model for non-catalytic aquathermolysis of heavy crude oil. Journal of Petroleum Science and Engineering, 2022, 216, 110845.	4.2	21
76	Genesis of Acidâ˘'Base Support Properties with Variations of Preparation Conditions: Cumene Cracking and Its Kinetics. Industrial & Engineering Chemistry Research, 2011, 50, 2715-2725.	3.7	20
77	Partial Upgrading of Heavy Crude Oil by Slurry-Phase Hydrocracking with Analytical Grade and Ore Catalysts. Energy & Fuels, 2016, 30, 10117-10125.	5.1	20
78	Experimental Study and Economic Analysis of Heavy Oil Partial Upgrading by Solvent Deasphaltingâ€"Hydrotreating. Energy & Fuels, 2018, 32, 55-59.	5.1	20
79	Reactors for Hydroprocessing. Chemical Industries, 2007, , 71-120.	0.1	20
80	Experimental and theoretical determination of the particle size of hydrotreating catalysts of different shapes. Catalysis Today, 2005, 109, 120-127.	4.4	19
81	Comparison of kinetic and reactor models to simulate a trickle-bed bench-scale reactor for hydrodesulfurization of VGO. Fuel, 2012, 100, 91-99.	6.4	19
82	Kinetic and Reactor Modeling of Catalytic Hydrotreatment of Vegetable Oils. Energy & Fuels, 2018, 32, 7245-7261.	5.1	19
83	Application of a three-stage approach for modeling the complete period of catalyst deactivation during hydrotreating of heavy oil. Fuel, 2014, 138, 45-51.	6.4	18
84	Simulation of a Commercial Semiregenerative Reforming Plant Using Feedstocks with and without Benzene Precursors. Chemical Engineering and Technology, 2002, 25, 541-546.	1.5	17
85	Hydrodesulfurization, Hydrodenitrogenation, Hydrodemetallization, and Hydrodeasphaltenization of Maya Crude over NiMo/Al2O3 Modified with Ti and P. Petroleum Science and Technology, 2007, 25, 215-229.	1.5	17
86	Transient behavior of residual oil front-end hydrodemetallization in a trickle-bed reactor. Chemical Engineering Journal, 2012, 197, 204-214.	12.7	16
87	Modeling the performance of a bench-scale reactor sustaining HDS and HDM of heavy crude oil at moderate conditions. Fuel, 2012, 100, 152-162.	6.4	16
88	Modeling the Simultaneous Hydrodesulfurization and Hydrocracking of Heavy Residue Oil by using the Continuous Kinetic Lumping Approach. Energy & Fuels, 2012, 26, 1999-2004.	5.1	16
89	Experimental Setups for Studying the Compatibility of Crude Oil Blends under Dynamic Conditions. Energy & Fuels, 2016, 30, 8216-8225.	5.1	16
90	Dynamic Modeling and Simulation of a Slurry-Phase Reactor for Hydrotreating of Oil Fractions. Energy & Fuels, 2017, 31, 5691-5700.	5.1	16

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91	Viscosity Reduction of Heavy Oil during Slurryâ€Phase Hydrocracking. Chemical Engineering and Technology, 2019, 42, 148-155.	1.5	16
92	Effect of silicon incorporation method in the supports of NiMo catalysts for hydrotreating reactions. Fuel, 2019, 239, 1293-1303.	6.4	16
93	Effect of alumina and silicaâ€"alumina supported NiMo catalysts on the properties of asphaltenes during hydroprocessing of heavy petroleum. Fuel, 2014, 138, 111-117.	6.4	15
94	Modeling of Catalytic Fixed-Bed Reactors for Fuels Production by Fischerâ€"Tropsch Synthesis. Energy & Fuels, 2017, 31, 13011-13042.	5.1	15
95	Methods To Calculate Hydrogen Consumption during Hydrocracking Experiments in Batch Reactors. Energy & Fuels, 2017, 31, 11690-11697.	5.1	15
96	Revisiting the importance of appropriate parameter estimation based on sensitivity analysis for developing kinetic models. Fuel, 2020, 267, 117113.	6.4	15
97	Evaluation of mixing rules to predict viscosity of petrodiesel and biodiesel blends. Fuel, 2021, 283, 118941.	6.4	15
98	Evaluation of Asphaltene Stability of a Wide Range of Mexican Crude Oils. Energy & Fuels, 2021, 35, 408-418.	5.1	15
99	Hydrotreating of Maya Crude Oil: II. Generalized Relationship between Hydrogenolysis and HDAs. Petroleum Science and Technology, 2007, 25, 201-213.	1.5	14
100	Study of accelerated deactivation of hydrotreating catalysts by vanadium impregnation method. Catalysis Today, 2008, 130, 405-410.	4.4	14
101	Batch Reactor Study of the Effect of Aromatic Diluents to Reduce Sediment Formation during Hydrotreating of Heavy Oil. Energy & Fuels, 2018, 32, 60-66.	5.1	14
102	Modeling the deactivation by metal deposition of heavy oil hydrotreating catalyst. Catalysis Today, 2014, 220-222, 221-227.	4.4	13
103	Calculating the Viscosity of Crude Oil Blends by Binary Interaction Parameters Using Literature Data. Petroleum Science and Technology, 2015, 33, 893-900.	1.5	13
104	Using Separate Kinetic Models to Predict Liquid, Gas, and Coke Yields in Heavy Oil Hydrocracking. Industrial & Engineering Chemistry Research, 2019, 58, 7973-7979.	3.7	13
105	Modeling and control of a Fischer-Tropsch synthesis fixed-bed reactor with a novel mechanistic kinetic approach. Chemical Engineering Journal, 2020, 390, 124489.	12.7	13
106	Different alumina precursors in the preparation of supports for HDT and HDC of Maya crude oil. Catalysis Today, 2018, 305, 2-12.	4.4	12
107	Evaluation and comparison of thermodynamic and kinetic parameters for oxidation and pyrolysis of Yarega heavy crude oil asphaltenes. Fuel, 2021, 297, 120703.	6.4	12
108	Characterization of Upgraded Oil Fractions Obtained by Slurry-Phase Hydrocracking at Low-Severity Conditions Using Analytical and Ore Catalysts. Energy & Fuels, 2017, 31, 9162-9178.	5.1	11

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109	Defining appropriate reaction scheme for hydrotreating of vegetable oil through proper calculation of kinetic parameters. Fuel, 2019, 242, 167-173.	6.4	11
110	Regular solution model to predict the asphaltenes flocculation and sediments formation during hydrocracking of heavy oil. Fuel, 2020, 260, 116160.	6.4	11
111	Simulation and planning of a petroleum refinery based on carbon rejection processes. Fuel, 2012, 100, 80-90.	6.4	10
112	Effect of Reactor Configuration on the Hydrotreating of Atmospheric Residue. Energy & Fuels, 2019, 33, 1649-1658.	5.1	10
113	Modeling of a bench-scale fixed-bed reactor for catalytic hydrotreating of vegetable oil. Renewable Energy, 2020, 148, 790-797.	8.9	10
114	Hydrodeoxygenation of vegetable oil in batch reactor: Experimental considerations. Chinese Journal of Chemical Engineering, 2020, 28, 1670-1683.	3.5	10
115	Kinetics of heavy oil non-catalytic aquathermolysis with and without stoichiometric coefficients. Fuel, 2022, 323, 124365.	6.4	10
116	Analysis of kinetic models for hydrocracking of heavy oils for In-situ and Ex-situ applications. Fuel, 2022, 323, 124322.	6.4	10
117	Comparison of Different Power-law Kinetic Models for Hydrocracking of Asphaltenes. Petroleum Science and Technology, 2007, 25, 263-275.	1.5	9
118	Evaluation of the hydrodynamics of high-pressure ebullated beds based on dimensional similitude. Catalysis Today, 2008, 130, 519-526.	4.4	9
119	Catalyst Stacking Technology as a Viable Solution to Ultralow Sulfur Diesel Production. Energy & Fuels, 2022, 36, 3201-3218.	5.1	8
120	Dynamic modeling and simulation of a bench-scale reactor for the hydrocracking of heavy oil by using the continuous kinetic lumping approach. Reaction Kinetics, Mechanisms and Catalysis, 2016, 118, 299-311.	1.7	7
121	Organic polymers as solid hydrogen donors in the hydrogenation of cyclohexene. Catalysis Today, 2018, 305, 143-151.	4.4	7
122	Catalytic hydrocracking of a Mexican heavy oil on a MoS_2/Al_2O_3 catalyst: I. Study of the transformation of isolated saturates fraction obtained from SARA analysis. Catalysis Today, 2020, 353, 153-162.	4.4	6
123	Thermogravimetric Determination of the Kinetics of Petroleum Needle Coke Formation by Decantoil Thermolysis. ACS Omega, 2020, 5, 29570-29576.	3.5	6
124	Dynamic one-dimensional pseudohomogeneous model for Fischer-Tropsch fixed-bed reactors. Fuel, 2019, 252, 371-392.	6.4	5
125	State estimation for heavy oil hydroprocessing reactors using extended Kalman filters. Fuel, 2020, 262, 116565.	6.4	5
126	Scaling Up the Performance of a Reactor Model for Hydrotreating Vegetable Oil from Bench-Scale to Pilot-Scale Reactors. Industrial & Engineering Chemistry Research, 2020, 59, 21712-21719.	3.7	5

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127	Prediction of Temperature Profiles for Catalytic Hydrotreating of Vegetable Oil with a Robust Dynamic Reactor Model. Industrial & Engineering Chemistry Research, 2021, 60, 13812-13821.	3.7	4
128	Selection of heavy oil upgrading technologies by proper estimation of petroleum prices. Petroleum Science and Technology, 2022, 40, 217-236.	1.5	4
129	Modeling and simulation of a multi-bed industrial reactor for renewable diesel hydroprocessing. Renewable Energy, 2022, 186, 173-182.	8.9	4
130	Batch Reactor Study for Partial Upgrading of a Heavy Oil with a Novel Solid Hydrogen Transfer Agent. Energy & Fuels, 2020, 34, 15714-15726.	5.1	3
131	Simulation of bench-scale hydrotreating of vegetable oil reactor under non-isothermal conditions. Fuel, 2020, 275, 117960.	6.4	3
132	Easy Approach to Calculate Real Conversion and Yields from Hydroprocessing of Heavy Oils Plants. Energy & Fuels, 2007, 21, 1824-1825.	5.1	2
133	Importance of proper hydrodynamics modelling in fixedâ€bed reactors: Fischerâ€Tropsch synthesis study case. Canadian Journal of Chemical Engineering, 2019, 97, 2685-2698.	1.7	2
134	Modeling of the Deasphalting Process by a Residueâ€“Solvent Equilibrium Calculation Using Continuous Thermodynamics. Industrial & Engineering Chemistry Research, 2022, 61, 3383-3394.	3.7	1
135	On the Use of Steady-State Optimal Initial Operating Conditions for Control Scheme Implementation of a Fixed-Bed Fischerâ€“Tropsch Reactor. Arabian Journal for Science and Engineering, 0, , 1.	3.0	0