

Ana G Gayubo

List of Publications by Year in descending order

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28274

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#	ARTICLE	IF	CITATIONS
1	Transformation of Oxygenate Components of Biomass Pyrolysis Oil on a HZSM-5 Zeolite. I. Alcohols and Phenols. <i>Industrial & Engineering Chemistry Research</i> , 2004, 43, 2610-2618.	3.7	402
2	Transformation of Oxygenate Components of Biomass Pyrolysis Oil on a HZSM-5 Zeolite. II. Aldehydes, Ketones, and Acids. <i>Industrial & Engineering Chemistry Research</i> , 2004, 43, 2619-2626.	3.7	363
3	Coke formation and deactivation during catalytic reforming of biomass and waste pyrolysis products: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 119, 109600.	16.4	278
4	Monitoring Ni O and coke evolution during the deactivation of a Ni/La 2 O 3 ± Al 2 O 3 catalyst in ethanol steam reforming in a fluidized bed. <i>Journal of Catalysis</i> , 2015, 331, 181-192.	6.2	208
5	Deactivating species in the transformation of crude bio-oil with methanol into hydrocarbons on a HZSM-5 catalyst. <i>Journal of Catalysis</i> , 2012, 285, 304-314.	6.2	175
6	Coke deactivation of Ni and Co catalysts in ethanol steam reforming at mild temperatures in a fluidized bed reactor. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 12586-12596.	7.1	175
7	Role of acidity and microporous structure in alternative catalysts for the transformation of methanol into olefins. <i>Applied Catalysis A: General</i> , 2005, 283, 197-207.	4.3	164
8	Selective Production of Aromatics by Crude Bio-oil Valorization with a Nickel-Modified HZSM-5 Zeolite Catalyst. <i>Energy & Fuels</i> , 2010, 24, 2060-2070.	5.1	164
9	Deactivation of a HZSM-5 Zeolite Catalyst in the Transformation of the Aqueous Fraction of Biomass Pyrolysis Oil into Hydrocarbons. <i>Energy & Fuels</i> , 2004, 18, 1640-1647.	5.1	161
10	Undesired components in the transformation of biomass pyrolysis oil into hydrocarbons on an HZSM-5 zeolite catalyst. <i>Journal of Chemical Technology and Biotechnology</i> , 2005, 80, 1244-1251.	3.2	135
11	Selective production of olefins from bioethanol on HZSM-5 zeolite catalysts treated with NaOH. <i>Applied Catalysis B: Environmental</i> , 2010, 97, 299-306.	20.2	135
12	Coking and sintering progress of a Ni supported catalyst in the steam reforming of biomass pyrolysis volatiles. <i>Applied Catalysis B: Environmental</i> , 2018, 233, 289-300.	20.2	134
13	Reaction pathway for ethanol steam reforming on a Ni/SiO 2 catalyst including coke formation. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 18820-18834.	7.1	131
14	Differences among the deactivation pathway of HZSM-5 zeolite and SAPO-34 in the transformation of ethylene or 1-butene to propylene. <i>Microporous and Mesoporous Materials</i> , 2014, 195, 284-293.	4.4	126
15	Hydrothermally stable HZSM-5 zeolite catalysts for the transformation of crude bio-oil into hydrocarbons. <i>Applied Catalysis B: Environmental</i> , 2010, 100, 318-327.	20.2	124
16	Recent research progress on bio-oil conversion into bio-fuels and raw chemicals: a review. <i>Journal of Chemical Technology and Biotechnology</i> , 2019, 94, 670-689.	3.2	124
17	Catalyst Deactivation by Coke in the Transformation of Aqueous Ethanol into Hydrocarbons. Kinetic Modeling and Acidity Deterioration of the Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2002, 41, 4216-4224.	3.7	123
18	Kinetic Description of the Catalytic Pyrolysis of Biomass in a Conical Spouted Bed Reactor. <i>Energy & Fuels</i> , 2005, 19, 765-774.	5.1	122

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19	Operating conditions for attenuating Ni/La ₂ O ₃ -Al ₂ O ₃ catalyst deactivation in the steam reforming of bio-oil aqueous fraction. <i>Fuel Processing Technology</i> , 2013, 115, 222-232.	7.2	122
20	Olefin Production by Catalytic Transformation of Crude Bio-Oil in a Two-Step Process. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 123-131.	3.7	119
21	Catalysts of Ni/La ₂ O ₃ -Al ₂ O ₃ and Ni/La ₂ O ₃ -Al ₂ O ₃ for hydrogen production by steam reforming of bio-oil aqueous fraction with pyrolytic lignin retention. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 1307-1318.	7.1	111
22	Effect of calcination/reduction conditions of Ni/La ₂ O ₃ -Al ₂ O ₃ catalyst on its activity and stability for hydrogen production by steam reforming of raw bio-oil/ethanol. <i>Applied Catalysis B: Environmental</i> , 2014, 147, 402-410.	20.2	111
23	Kinetics of the irreversible deactivation of the HZSM-5 catalyst in the MTO process. <i>Chemical Engineering Science</i> , 2003, 58, 5239-5249.	3.8	108
24	Study of operating variables in the transformation of aqueous ethanol into hydrocarbons on an HZSM-5 zeolite. <i>Journal of Chemical Technology and Biotechnology</i> , 2002, 77, 211-216.	3.2	104
25	Deposition and Characteristics of Coke over a H-ZSM5 Zeolite-Based Catalyst in the MTG Process. <i>Industrial & Engineering Chemistry Research</i> , 1996, 35, 3991-3998.	3.7	103
26	Effect of operating conditions on the coke nature and HZSM-5 catalysts deactivation in the transformation of crude bio-oil into hydrocarbons. <i>Catalysis Today</i> , 2012, 195, 106-113.	4.4	101
27	Kinetic Modeling of Methanol Transformation into Olefins on a SAPO-34 Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2000, 39, 292-300.	3.7	98
28	Deactivation of a CuO-ZnO-Al ₂ O ₃ /Al ₂ O ₃ Catalyst in the Synthesis of Dimethyl Ether. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 2238-2247.	3.7	97
29	Role of oxygenates and effect of operating conditions in the deactivation of a Ni supported catalyst during the steam reforming of bio-oil. <i>Green Chemistry</i> , 2017, 19, 4315-4333.	9.0	97
30	Hydrothermal stability of HZSM-5 catalysts modified with Ni for the transformation of bioethanol into hydrocarbons. <i>Fuel</i> , 2010, 89, 3365-3372.	6.4	96
31	Deactivation dynamics of a Ni supported catalyst during the steam reforming of volatiles from waste polyethylene pyrolysis. <i>Applied Catalysis B: Environmental</i> , 2017, 209, 554-565.	20.2	93
32	Modified HZSM-5 zeolites for intensifying propylene production in the transformation of 1-butene. <i>Chemical Engineering Journal</i> , 2014, 251, 80-91.	12.7	89
33	Steam reforming of raw bio-oil over Ni/La ₂ O ₃ -Al ₂ O ₃ : Influence of temperature on product yields and catalyst deactivation. <i>Fuel</i> , 2018, 216, 463-474.	6.4	89
34	Attenuation of Catalyst Deactivation by Cofeeding Methanol for Enhancing the Valorisation of Crude Bio-oil. <i>Energy & Fuels</i> , 2009, 23, 4129-4136.	5.1	88
35	Kinetic model for the reaction of DME to olefins over a HZSM-5 zeolite catalyst. <i>Chemical Engineering Journal</i> , 2016, 302, 801-810.	12.7	88
36	Effect of Si/Al Ratio and of Acidity of H-ZSM5 Zeolites on the Primary Products of Methanol to Gasoline Conversion. <i>Journal of Chemical Technology and Biotechnology</i> , 1996, 66, 183-191.	3.2	87

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37	Role of water in the kinetic modeling of catalyst deactivation in the MTG process. <i>AIChE Journal</i> , 2002, 48, 1561-1571.	3.6	87
38	Catalyst Equilibration for Transformation of Methanol into Hydrocarbons by Reaction~Regeneration Cycles. <i>Industrial & Engineering Chemistry Research</i> , 1996, 35, 2177-2182.	3.7	80
39	Biomass to hydrogen-rich gas via steam reforming of raw bio-oil over Ni/La ₂ O ₃ -Al ₂ O ₃ catalyst: Effect of space-time and steam-to-carbon ratio. <i>Fuel</i> , 2018, 216, 445-455.	6.4	79
40	Deactivation by coke of a catalyst based on a SAPO-34 in the transformation of methanol into olefins. <i>Journal of Chemical Technology and Biotechnology</i> , 1999, 74, 315-321.	3.2	78
41	Relationship between surface acidity and activity of catalysts in the transformation of methanol into hydrocarbons. <i>Journal of Chemical Technology and Biotechnology</i> , 1996, 65, 186-192.	3.2	75
42	Kinetic modelling for the transformation of bioethanol into olefins on a hydrothermally stable Ni~HZSM-5 catalyst considering the deactivation by coke. <i>Chemical Engineering Journal</i> , 2011, 167, 262-277.	12.7	73
43	Steam Reforming of Raw Bio-oil in a Fluidized Bed Reactor with Prior Separation of Pyrolytic Lignin. <i>Energy & Fuels</i> , 2013, 27, 7549-7559.	5.1	71
44	Origin and Nature of Coke in Ethanol Steam Reforming and Its Role in Deactivation of Ni/La ₂ O ₃ -Al ₂ O ₃ Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 14736-14751.	3.7	70
45	Catalyst deactivation by coking in the MTG process in fixed and fluidized bed reactors. <i>Catalysis Today</i> , 1997, 37, 239-248.	4.4	69
46	Role of Coke Characteristics in the Regeneration of a Catalyst for the MTG Process. <i>Industrial & Engineering Chemistry Research</i> , 1997, 36, 60-66.	3.7	67
47	Kinetic Modelling of the Transformation of Aqueous Ethanol into Hydrocarbons on a HZSM-5 Zeolite. <i>Industrial & Engineering Chemistry Research</i> , 2001, 40, 3467-3474.	3.7	67
48	Effect of Cofeeding Butane with Methanol on the Deactivation by Coke of a HZSM-5 Zeolite Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 9980-9988.	3.7	67
49	Role of Reaction-Medium Water on the Acidity Deterioration of a HZSM-5 Zeolite. <i>Industrial & Engineering Chemistry Research</i> , 2004, 43, 5042-5048.	3.7	65
50	Kinetic Modeling of the Methanol-to-Olefins Process on a Silicoaluminophosphate (SAPO-18) Catalyst by Considering Deactivation and the Formation of Individual Olefins. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 1981-1989.	3.7	65
51	Kinetics of Methanol Transformation into Hydrocarbons on a HZSM-5 Zeolite Catalyst at High Temperature (400~550 Å°C). <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 12371-12378.	3.7	64
52	Concentration-Dependent Kinetic Model for Catalyst Deactivation in the MTG Process. <i>Industrial & Engineering Chemistry Research</i> , 1996, 35, 81-89.	3.7	63
53	Improving the DME steam reforming catalyst by alkaline treatment of the HZSM-5 zeolite. <i>Applied Catalysis B: Environmental</i> , 2013, 130-131, 73-83.	20.2	59
54	Regeneration of NiAl ₂ O ₄ spinel type catalysts used in the reforming of raw bio-oil. <i>Applied Catalysis B: Environmental</i> , 2018, 237, 353-365.	20.2	59

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55	Deactivation kinetics for the conversion of dimethyl ether to olefins over a HZSM-5 zeolite catalyst. <i>Chemical Engineering Journal</i> , 2017, 311, 367-377.	12.7	58
56	Optimum operating conditions in ethanol steam reforming over a Ni/La ₂ O ₃ -Al ₂ O ₃ catalyst in a fluidized bed reactor. <i>Fuel Processing Technology</i> , 2018, 169, 207-216.	7.2	58
57	Simultaneous modeling of the kinetics for n-pentane cracking and the deactivation of a HZSM-5 based catalyst. <i>Chemical Engineering Journal</i> , 2018, 331, 818-830.	12.7	53
58	Kinetic Model for the Transformation of Bioethanol into Olefins over a HZSM-5 Zeolite Treated with Alkali. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 10836-10844.	3.7	52
59	Thermodynamic comparison between bio-oil and ethanol steam reforming. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 15963-15971.	7.1	52
60	Coke Aging and Its Incidence on Catalyst Regeneration. <i>Industrial & Engineering Chemistry Research</i> , 2003, 42, 3914-3921.	3.7	50
61	Isotherms of chemical adsorption of bases on solid catalysts for acidity measurement. <i>Journal of Chemical Technology and Biotechnology</i> , 1994, 60, 141-146.	3.2	48
62	Synergies in the production of olefins by combined cracking of n-butane and methanol on a HZSM-5 zeolite catalyst. <i>Chemical Engineering Journal</i> , 2010, 160, 760-769.	12.7	47
63	Initiation Step and Reactive Intermediates in the Transformation of Methanol into Olefins over SAPO-18 Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2005, 44, 7279-7286.	3.7	45
64	Controlling coke deactivation and cracking selectivity of MFI zeolite by H ₃ PO ₄ or KOH modification. <i>Applied Catalysis A: General</i> , 2015, 505, 105-115.	4.3	45
65	Causes of deactivation of bifunctional catalysts made up of CuO-ZnO-Al ₂ O ₃ and desilicated HZSM-5 zeolite in DME steam reforming. <i>Applied Catalysis A: General</i> , 2014, 483, 76-84.	4.3	44
66	Temperature Programmed Oxidation Coupled with In-situ Techniques Reveal the Nature and Location of Coke Deposited on a Ni/La ₂ O ₃ -Al ₂ O ₃ Catalyst in the Steam Reforming of Bio-oil. <i>ChemCatChem</i> , 2018, 10, 2311-2321.	3.7	44
67	Effect of reaction conditions on the deactivation by coke of a NiAl ₂ O ₄ spinel derived catalyst in the steam reforming of bio-oil. <i>Applied Catalysis B: Environmental</i> , 2021, 297, 120445.	20.2	44
68	Cost-effective upgrading of biomass pyrolysis oil using activated dolomite as a basic catalyst. <i>Fuel Processing Technology</i> , 2019, 195, 106142.	7.2	43
69	Aqueous-phase reforming of bio-oil aqueous fraction over nickel-based catalysts. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 13157-13168.	7.1	43
70	Upgrading of Bio-Oil in a Continuous Process with Dolomite Catalyst. <i>Energy & Fuels</i> , 2014, 28, 6419-6428.	5.1	42
71	Regeneration of a catalyst based on a SAPO-34 used in the transformation of methanol into olefins. <i>Journal of Chemical Technology and Biotechnology</i> , 1999, 74, 1082-1088.	3.2	41
72	Compositional Insights and Valorization Pathways for Carbonaceous Material Deposited During Bio-oil Thermal Treatment. <i>ChemSusChem</i> , 2014, 7, 2597-2608.	6.8	41

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73	Kinetic Modeling of <i>n</i> -Butane Cracking on HZSM-5 Zeolite Catalyst. Industrial & Engineering Chemistry Research, 2010, 49, 8415-8423.	3.7	40
74	Steam Reforming of the Bio-Oil Aqueous Fraction in a Fluidized Bed Reactor with in Situ CO ₂ Capture. Industrial & Engineering Chemistry Research, 2013, 52, 17087-17098.	3.7	40
75	Stability of CuZnO/Al ₂ O ₃ /HZSM-5 and CuFe ₂ O ₄ /HZSM-5 catalysts in dimethyl ether steam reforming operating in reaction-regeneration cycles. Fuel Processing Technology, 2014, 126, 145-154.	7.2	40
76	Olefin production by cofeeding methanol and <i>n</i> -butane: Kinetic modeling considering the deactivation of HZSM-5 zeolite. AIChE Journal, 2011, 57, 2841-2853.	3.6	39
77	Modifications in the HZSM-5 zeolite for the selective transformation of ethylene into propylene. Applied Catalysis A: General, 2014, 479, 17-25.	4.3	39
78	Spatial Distribution of Zeolite ZSM-5 within Catalyst Bodies Affects Selectivity and Stability of Methanol-to-Hydrocarbons Conversion. ChemCatChem, 2013, 5, 2827-2831.	3.7	38
79	Catalyst discrimination for olefin production by coupled methanol/ <i>n</i> -butane cracking. Applied Catalysis A: General, 2010, 383, 202-210.	4.3	36
80	Reproducible performance of a Ni/La ₂ O ₃ -Al ₂ O ₃ catalyst in ethanol steam reforming under reaction-regeneration cycles. Fuel Processing Technology, 2016, 152, 215-222.	7.2	36
81	Kinetic model considering catalyst deactivation for the steam reforming of bio-oil over Ni/La ₂ O ₃ -Al ₂ O ₃ . Chemical Engineering Journal, 2018, 332, 192-204.	12.7	36
82	Role of zeolite properties in bio-oil deoxygenation and hydrocarbons production by catalytic cracking. Fuel Processing Technology, 2022, 227, 107130.	7.2	36
83	ROLE OF WATER IN THE KINETIC MODELING OF METHANOL TRANSFORMATION INTO HYDROCARBONS ON HZSM-5 ZEOLITE. Chemical Engineering Communications, 2004, 191, 944-967.	2.6	35
84	Effect of phenols extraction on the behavior of Ni-spinel derived catalyst for raw bio-oil steam reforming. International Journal of Hydrogen Energy, 2019, 44, 12593-12603.	7.1	35
85	Effect of combining metallic and acid functions in CZA/HZSM-5 desilicated zeolite catalysts on the DME steam reforming in a fluidized bed. International Journal of Hydrogen Energy, 2013, 38, 10019-10028.	7.1	34
86	Kinetic Model for the Transformation of 1-Butene on a K-Modified HZSM-5 Catalyst. Industrial & Engineering Chemistry Research, 2014, 53, 10599-10607.	3.7	34
87	Kinetic behaviour of catalysts with different CuO-ZnO-Al ₂ O ₃ metallic function compositions in DME steam reforming in a fluidized bed. Applied Catalysis B: Environmental, 2013, 142-143, 315-322.	20.2	32
88	Intensifying Propylene Production by 1-Butene Transformation on a K Modified HZSM-5 Zeolite-Catalyst. Industrial & Engineering Chemistry Research, 2014, 53, 4614-4622.	3.7	32
89	Effect of Operating Conditions on Dimethyl Ether Steam Reforming over a CuFe ₂ O ₄ /Al ₂ O ₃ -Al ₂ O ₃ Bifunctional Catalyst. Industrial & Engineering Chemistry Research, 2015, 54, 9722-9732.	3.7	32
90	Hydrogen production by steam reforming of bio-oil/bio-ethanol mixtures in a continuous thermal-catalytic process. International Journal of Hydrogen Energy, 2014, 39, 6889-6898.	7.1	31

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91	Oxidative Steam Reforming of Raw Bio-Oil over Supported and Bulk Ni Catalysts for Hydrogen Production. <i>Catalysts</i> , 2018, 8, 322.	3.5	31
92	Selective dealumination of HZSM-5 zeolite boosts propylene by modifying 1-butene cracking pathway. <i>Applied Catalysis A: General</i> , 2017, 543, 1-9.	4.3	30
93	Comparison of Ni and Co Catalysts for Ethanol Steam Reforming in a Fluidized Bed Reactor. <i>Catalysis Letters</i> , 2014, 144, 1134-1143.	2.6	29
94	Comparison of Noble Metal- and Copper-Based Catalysts for the Step of Methanol Steam Reforming in the Dimethyl Ether Steam Reforming Process. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 3546-3555.	3.7	29
95	Calculation of the kinetics of deactivation by coke of a silica-alumina catalyst in the dehydration of 2-ethylhexanol. <i>Industrial & Engineering Chemistry Research</i> , 1993, 32, 458-465.	3.7	28
96	Dual catalyst-sorbent role of dolomite in the steam reforming of raw bio-oil for producing H ₂ -rich syngas. <i>Fuel Processing Technology</i> , 2020, 200, 106316.	7.2	28
97	Acidity, Surface Species, and Mechanism of Methanol Transformation into Olefins on a SAPO-34. <i>Industrial & Engineering Chemistry Research</i> , 1998, 37, 2336-2340.	3.7	27
98	Deactivation kinetics of a HZSM-5 zeolite catalyst treated with alkali for the transformation of bio-ethanol into hydrocarbons. <i>AIChE Journal</i> , 2012, 58, 526-537.	3.6	27
99	Catalyst reactivation kinetics for methanol transformation into hydrocarbons. Expressions for designing reaction-regeneration cycles in isothermal and adiabatic fixed bed reactor. <i>Chemical Engineering Science</i> , 2001, 56, 5059-5071.	3.8	26
100	Deactivation of Ni spinel derived catalyst during the oxidative steam reforming of raw bio-oil. <i>Fuel</i> , 2020, 276, 117995.	6.4	26
101	MTG fluidized bed reactor-regenerator unit with catalyst circulation: process simulation and operation of an experimental setup. <i>Chemical Engineering Science</i> , 2000, 55, 3223-3235.	3.8	25
102	Reaction conditions effect and pathways in the oxidative steam reforming of raw bio-oil on a Rh/CeO ₂ -ZrO ₂ catalyst in a fluidized bed reactor. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 29175-29185.	7.1	25
103	On the dynamics and reversibility of the deactivation of a Rh/CeO ₂ ZrO ₂ catalyst in raw bio-oil steam reforming. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 2620-2632.	7.1	25
104	Stability of a Rh/CeO ₂ -ZrO ₂ Catalyst in the Oxidative Steam Reforming of Raw Bio-oil. <i>Energy & Fuels</i> , 2018, 32, 3588-3598.	5.1	24
105	Deactivation and acidity deterioration of a silica/alumina catalyst in the isomerization of cis-butene. <i>Industrial & Engineering Chemistry Research</i> , 1993, 32, 588-593.	3.7	23
106	Study of the preparation and composition of the metallic function for the selective hydrogenation of CO ₂ to gasoline over bifunctional catalysts. <i>Journal of Chemical Technology and Biotechnology</i> , 2003, 78, 161-166.	3.2	23
107	Kinetic modelling of methylcyclohexane ring-opening over a HZSM-5 zeolite catalyst. <i>Chemical Engineering Journal</i> , 2008, 140, 287-295.	12.7	23
108	Effect of Operating Conditions on Dimethyl Ether Steam Reforming in a Fluidized Bed Reactor with a CuO-ZnO-Al ₂ O ₃ and Desilicated ZSM-5 Zeolite Bifunctional Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2014, 53, 3462-3471.	3.7	23

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109	Kinetics of the steam reforming of dimethyl ether over CuFe ₂ O ₄ / γ -Al ₂ O ₃ . Chemical Engineering Journal, 2016, 306, 401-412.	12.7	22
110	Integration of Thermal Treatment and Catalytic Transformation for Upgrading Biomass Pyrolysis Oil. International Journal of Chemical Reactor Engineering, 2007, 5, .	1.1	21
111	Behavior of a CuFe ₂ O ₄ / γ -Al ₂ O ₃ Catalyst for the Steam Reforming of Dimethyl Ether in Reaction-Regeneration Cycles. Industrial & Engineering Chemistry Research, 2015, 54, 11285-11294.	3.7	21
112	Role of Shape Selectivity and Catalyst Acidity in the Transformation of Chloromethane into Light Olefins. Industrial & Engineering Chemistry Research, 2015, 54, 7822-7832.	3.7	20
113	SAPO-18 and SAPO-34 catalysts for propylene production from the oligomerization-cracking of ethylene or 1-butene. Applied Catalysis A: General, 2017, 547, 176-182.	4.3	20
114	Feasibility of online pre-reforming step with dolomite for improving Ni spinel catalyst stability in the steam reforming of raw bio-oil. Fuel Processing Technology, 2021, 215, 106769.	7.2	20
115	Comparison of Ni Based and Rh Based Catalyst Performance in the Oxidative Steam Reforming of Raw Bio-Oil. Energy & Fuels, 2017, 31, 7147-7156.	5.1	19
116	Insights into the Reaction Routes for H ₂ Formation in the Ethanol Steam Reforming on a Catalyst Derived from NiAl ₂ O ₄ Spinel. Energy & Fuels, 2021, 35, 17197-17211.	5.1	19
117	Global vision from the thermodynamics of the effect of the bio-oil composition and the reforming strategies in the H ₂ production and the energy requirement. Energy Conversion and Management, 2021, 239, 114181.	9.2	18
118	Conversion of syngas to liquid hydrocarbons over a two-component (Cr ₂ O ₃ â€ZnO and ZSM-5 zeolite) catalyst:. Chemical Engineering Science, 2000, 55, 1845-1855.	3.8	17
119	Kinetic Behavior of the SAPO-18 Catalyst in the Transformation of Methanol into Olefins. Industrial & Engineering Chemistry Research, 2005, 44, 6605-6614.	3.7	17
120	Development of a bifunctional catalyst for dimethyl ether steam reforming with CuFe ₂ O ₄ spinel as the metallic function. Journal of Industrial and Engineering Chemistry, 2016, 36, 169-179.	5.8	17
121	Unveiling the deactivation by coke of NiAl ₂ O ₄ spinel derived catalysts in the bio-oil steam reforming: Role of individual oxygenates. Fuel, 2022, 321, 124009.	6.4	17
122	The Role of Zeolite Acidity in Coupled Toluene Hydrogenation and Ring Opening in One and Two Steps. Industrial & Engineering Chemistry Research, 2008, 47, 665-671.	3.7	16
123	A comprehensive approach for designing different configurations of isothermal reactors with fast catalyst deactivation. Chemical Engineering Journal, 2020, 379, 122260.	12.7	16
124	Consideration of the activity distribution using the population balance theory for designing a dual fluidized bed reactor-regenerator system. Application to the MTO process. Chemical Engineering Journal, 2021, 405, 126448.	12.7	16
125	Combined effect of bio-oil composition and temperature on the stability of Ni spinel derived catalyst for hydrogen production by steam reforming. Fuel, 2022, 326, 124966.	6.4	16
126	COKE COMBUSTION AND REACTIVATION KINETICS OF A ZSM-5 ZEOLITE BASED CATALYST USED FOR THE TRANSFORMATION OF METHANOL INTO HYDROCARBONS. Chemical Engineering Communications, 1999, 176, 43-63.	2.6	15

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127	Reactivation of the HZSM-5 zeolite-based catalyst used in the MTG process. <i>AIChE Journal</i> , 1997, 43, 1551-1558.	3.6	14
128	MTG Process in a Fixed-Bed Reactor. Operation and Simulation of a Pseudoadiabatic Experimental Unit. <i>Industrial & Engineering Chemistry Research</i> , 2001, 40, 6087-6098.	3.7	13
129	Spectro-kinetics of the methanol to hydrocarbons reaction combining online product analysis with UV-vis and FTIR spectroscopies throughout the space time evolution. <i>Journal of Catalysis</i> , 2022, 408, 115-127.	6.2	13
130	MTG Process in a Fluidized Bed with Catalyst Circulation: Operation and Simulation of an Experimental Unit. <i>Industrial & Engineering Chemistry Research</i> , 1998, 37, 4222-4230.	3.7	12
131	Strategies for maximizing the bio-oil valorization by catalytic transformation. <i>Journal of Cleaner Production</i> , 2015, 88, 345-348.	9.3	11
132	Kinetic Model for the Conversion of Chloromethane into Hydrocarbons over a HZSM-5 Zeolite Catalyst. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 908-919.	3.7	11
133	Optimization of temperature-time sequences in reaction-regeneration cycles. Application to the isomerization of cis-butene. <i>Industrial & Engineering Chemistry Research</i> , 1993, 32, 2542-2547.	3.7	10
134	COMPOSITION AND QUALITY OF THE GASOLINE OBTAINED FROM SYNGAS ON Cr ₂ O ₃ -ZnO/ZSM5 CATALYSTS. <i>Chemical Engineering Communications</i> , 1999, 174, 1-19.	2.6	10
135	Simulation and Optimization of Methanol Transformation into Hydrocarbons in an Isothermal Fixed-Bed Reactor under Reaction-Regeneration Cycles. <i>Industrial & Engineering Chemistry Research</i> , 1998, 37, 2383-2390.	3.7	8
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