Ana Guadalupe Gayubo Cazorla

List of Publications by Citations

155 papers	7,458 citations	52 h-index	79 g-index
158 ext. papers	8,191 ext. citations	6.7 avg, IF	6.09 L-index

#	Paper	IF	Citations
155	Transformation of Oxygenate Components of Biomass Pyrolysis Oil on a HZSM-5 Zeolite. I. Alcohols and Phenols. *Industrial & Engineering Chemistry Research*, **2004**, 43, 2610-2618	3.9	366
154	Transformation of Oxygenate Components of Biomass Pyrolysis Oil on a HZSM-5 Zeolite. II. Aldehydes, Ketones, and Acids. *Industrial & Engineering Chemistry Research*, **2004**, 43, 2619-2626	3.9	325
153	Monitoring Ni 0 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. *Journal of Catalysis*, **2015**, 331, 181-192	7.3	168
152	Deactivating species in the transformation of crude bio-oil with methanol into hydrocarbons on a HZSM-5 catalyst. *Journal of Catalysis*, **2012**, 285, 304-314	7.3	154
151	Coke deactivation of Ni and Co catalysts in ethanol steam reforming at mild temperatures in a fluidized bed reactor. *International Journal of Hydrogen Energy*, **2014**, 39, 12586-12596	6.7	152
150	Role of acidity and microporous structure in alternative catalysts for the transformation of methanol into olefins. *Applied Catalysis A: General*, **2005**, 283, 197-207	5.1	150
149	Selective Production of Aromatics by Crude Bio-oil Valorization with a Nickel-Modified HZSM-5 Zeolite Catalyst. *Energy & Fuels*, **2010**, 24, 2060-2070	4.1	149
148	Deactivation of a HZSM-5 Zeolite Catalyst in the Transformation of the Aqueous Fraction of Biomass Pyrolysis Oil into Hydrocarbons. *Energy & Fuels*, **2004**, 18, 1640-1647	4.1	148
147	Coke formation and deactivation during catalytic reforming of biomass and waste pyrolysis products: A review. *Renewable and Sustainable Energy Reviews*, **2020**, 119, 109600	16.2	136
146	Selective production of olefins from bioethanol on HZSM-5 zeolite catalysts treated with NaOH. *Applied Catalysis B: Environmental*, **2010**, 97, 299-306	21.8	121
145	Undesired components in the transformation of biomass pyrolysis oil into hydrocarbons on an HZSM-5 zeolite catalyst. *Journal of Chemical Technology and Biotechnology*, **2005**, 80, 1244-1251	3.5	121
144	Hydrothermally stable HZSM-5 zeolite catalysts for the transformation of crude bio-oil into hydrocarbons. *Applied Catalysis B: Environmental*, **2010**, 100, 318-327	21.8	115
143	Reaction pathway for ethanol steam reforming on a Ni/SiO 2 catalyst including coke formation. *International Journal of Hydrogen Energy*, **2014**, 39, 18820-18834	6.7	111
142	Olefin Production by Catalytic Transformation of Crude Bio-Oil in a Two-Step Process. *Industrial & Engineering Chemistry Research*, **2010**, 49, 123-131	3.9	111
141	Kinetic Description of the Catalytic Pyrolysis of Biomass in a Conical Spouted Bed Reactor. *Energy & Fuels*, **2005**, 19, 765-774	4.1	110
140	Catalyst Deactivation by Coke in the Transformation of Aqueous Ethanol into Hydrocarbons. Kinetic Modeling and Acidity Deterioration of the Catalyst. *Industrial & Engineering Chemistry Research*, **2002**, 41, 4216-4224	3.9	107
139	Operating conditions for attenuating Ni/La2O3–Al2O3 catalyst deactivation in the steam reforming of bio-oil aqueous fraction. *Fuel Processing Technology*, **2013**, 115, 222-232	7.2	105

138	Effect of calcination/reduction conditions of Ni/La2O3Al2O3 catalyst on its activity and stability for hydrogen production by steam reforming of raw bio-oil/ethanol. *Applied Catalysis B: Environmental*, **2014**, 147, 402-410	21.8	104
137	Differences among the deactivation pathway of HZSM-5 zeolite and SAPO-34 in the transformation of ethylene or 1-butene to propylene. *Microporous and Mesoporous Materials*, **2014**, 195, 284-293	5.3	102
136	Kinetics of the irreversible deactivation of the HZSM-5 catalyst in the MTO process. *Chemical Engineering Science*, **2003**, 58, 5239-5249	4.4	100
135	Catalysts of Ni/Al2O3 and Ni/La2O3Al2O3 for hydrogen production by steam reforming of bio-oil aqueous fraction with pyrolytic lignin retention. *International Journal of Hydrogen Energy*, **2013**, 38, 1307-1318	6.7	99
134	Coking and sintering progress of a Ni supported catalyst in the steam reforming of biomass pyrolysis volatiles. *Applied Catalysis B: Environmental*, **2018**, 233, 289-300	21.8	93
133	Deposition and Characteristics of Coke over a H-ZSM5 Zeolite-Based Catalyst in the MTG Process. *Industrial & Engineering Chemistry Research*, **1996**, 35, 3991-3998	3.9	92
132	Deactivation of a CuOZnOAl2O3/Al2O3 Catalyst in the Synthesis of Dimethyl Ether. *Industrial & Engineering Chemistry Research*, **2008**, 47, 2238-2247	3.9	89
131	Kinetic Modeling of Methanol Transformation into Olefins on a SAPO-34 Catalyst. *Industrial & Engineering Chemistry Research*, **2000**, 39, 292-300	3.9	88
130	Hydrothermal stability of HZSM-5 catalysts modified with Ni for the transformation of bioethanol into hydrocarbons. *Fuel*, **2010**, 89, 3365-3372	7.1	86
129	Effect of operating conditions on the coke nature and HZSM-5 catalysts deactivation in the transformation of crude bio-oil into hydrocarbons. *Catalysis Today*, **2012**, 195, 106-113	5.3	85
128	Study of operating variables in the transformation of aqueous ethanol into hydrocarbons on an HZSM-5 zeolite. *Journal of Chemical Technology and Biotechnology*, **2002**, 77, 211-216	3.5	85
127	Role of water in the kinetic modeling of catalyst deactivation in the MTG process. *AICHE Journal*, **2002**, 48, 1561-1571	3.6	82
126	Modified HZSM-5 zeolites for intensifying propylene production in the transformation of 1-butene. *Chemical Engineering Journal*, **2014**, 251, 80-91	14.7	80
125	Attenuation of Catalyst Deactivation by Cofeeding Methanol for Enhancing the Valorisation of Crude Bio-oil. *Energy & Fuels*, **2009**, 23, 4129-4136	4.1	80
124	Effect of Si/Al ratio and of acidity of H-ZSM5 zeolites on the primary products of methanol to gasoline conversion. *Journal of Chemical Technology and Biotechnology*, **1996**, 66, 183-191	3.5	77
123	Steam reforming of raw bio-oil over Ni/La2O3Al2O3: Influence of temperature on product yields and catalyst deactivation. *Fuel*, **2018**, 216, 463-474	7.1	73
122	Catalyst Equilibration for Transformation of Methanol into Hydrocarbons by ReactionRegeneration Cycles. *Industrial & Engineering Chemistry Research*, **1996**, 35, 2177-2182	3.9	73
121	Recent research progress on bio-oil conversion into bio-fuels and raw chemicals: a review. *Journal of Chemical Technology and Biotechnology*, **2019**, 94, 670-689	3.5	70

120	Kinetic model for the reaction of DME to olefins over a HZSM-5 zeolite catalyst. *Chemical Engineering Journal*, **2016**, 302, 801-810	14.7	70
119	Relationship between surface acidity and activity of catalysts in the transformation of methanol into hydrocarbons. *Journal of Chemical Technology and Biotechnology*, **1996**, 65, 186-192	3.5	66
118	Role of oxygenates and effect of operating conditions in the deactivation of a Ni supported catalyst during the steam reforming of bio-oil. *Green Chemistry*, **2017**, 19, 4315-4333	10	65
117	Deactivation dynamics of a Ni supported catalyst during the steam reforming of volatiles from waste polyethylene pyrolysis. *Applied Catalysis B: Environmental*, **2017**, 209, 554-565	21.8	64
116	Kinetic modelling for the transformation of bioethanol into olefins on a hydrothermally stable NiHZSM-5 catalyst considering the deactivation by coke. *Chemical Engineering Journal*, **2011**, 167, 262-277	14.7	64
115	Role of Coke Characteristics in the Regeneration of a Catalyst for the MTG Process. *Industrial & Engineering Chemistry Research*, **1997**, 36, 60-66	3.9	63
114	Catalyst deactivation by coking in the MTG process in fixed and fluidized bed reactors. *Catalysis Today*, **1997**, 37, 239-248	5.3	63
113	Role of Reaction-Medium Water on the Acidity Deterioration of a HZSM-5 Zeolite. *Industrial & Engineering Chemistry Research*, **2004**, 43, 5042-5048	3.9	63
112	Deactivation by coke of a catalyst based on a SAPO-34 in the transformation of methanol into olefins. *Journal of Chemical Technology and Biotechnology*, **1999**, 74, 315-321	3.5	61
111	Steam Reforming of Raw Bio-oil in a Fluidized Bed Reactor with Prior Separation of Pyrolytic Lignin. *Energy & Fuels*, **2013**, 27, 7549-7559	4.1	60
110	Kinetics of Methanol Transformation into Hydrocarbons on a HZSM-5 Zeolite Catalyst at High Temperature (400B50 ºC). *Industrial & Engineering Chemistry Research*, **2010**, 49, 12371-12378	3.9	60
109	Effect of Cofeeding Butane with Methanol on the Deactivation by Coke of a HZSM-5 Zeolite Catalyst. *Industrial & Engineering Chemistry Research*, **2011**, 50, 9980-9988	3.9	60
108	Biomass to hydrogen-rich gas via steam reforming of raw bio-oil over Ni/La2O3-Al2O3 catalyst: Effect of space-time and steam-to-carbon ratio. *Fuel*, **2018**, 216, 445-455	7.1	59
107	Concentration-Dependent Kinetic Model for Catalyst Deactivation in the MTG Process. *Industrial & Engineering Chemistry Research*, **1996**, 35, 81-89	3.9	59
106	Kinetic Modeling of the Methanol-to-Olefins Process on a Silicoaluminophosphate (SAPO-18) Catalyst by Considering Deactivation and the Formation of Individual Olefins. *Industrial & Engineering Chemistry Research*, **2007**, 46, 1981-1989	3.9	58
105	Kinetic Modelling of the Transformation of Aqueous Ethanol into Hydrocarbons on a HZSM-5 Zeolite. *Industrial & Engineering Chemistry Research*, **2001**, 40, 3467-3474	3.9	57
104	Effect of nickel incorporation on the acidity and stability of HZSM-5 zeolite in the MTO process. *Catalysis Today*, **2005**, 106, 118-122	5.3	56
103	Improving the DME steam reforming catalyst by alkaline treatment of the HZSM-5 zeolite. *Applied Catalysis B: Environmental*, **2013**, 130-131, 73-83	21.8	52

102	Kinetic Model for the Transformation of Bioethanol into Olefins over a HZSM-5 Zeolite Treated with Alkali. *Industrial & Engineering Chemistry Research*, **2010**, 49, 10836-10844	3.9	48
101	Coke Aging and Its Incidence on Catalyst Regeneration. *Industrial & Engineering Chemistry Research*, **2003**, 42, 3914-3921	3.9	48
100	Deactivation kinetics for the conversion of dimethyl ether to olefins over a HZSM-5 zeolite catalyst. *Chemical Engineering Journal*, **2017**, 311, 367-377	14.7	46
99	Optimum operating conditions in ethanol steam reforming over a Ni/La2O3-Al2O3 catalyst in a fluidized bed reactor. *Fuel Processing Technology*, **2018**, 169, 207-216	7.2	46
98	Thermodynamic comparison between bio-oil and ethanol steam reforming. *International Journal of Hydrogen Energy*, **2015**, 40, 15963-15971	6.7	44
97	Origin and Nature of Coke in Ethanol Steam Reforming and Its Role in Deactivation of Ni/La2O3-Al2O3 Catalyst. *Industrial & Engineering Chemistry Research*, **2019**, 58, 14736-14751	3.9	44
96	Reaction scheme and kinetic modelling for the MTO process over a SAPO-18 catalyst. *Catalysis Today*, **2005**, 106, 112-117	5.3	43
95	Regeneration of NiAl2O4 spinel type catalysts used in the reforming of raw bio-oil. *Applied Catalysis B: Environmental*, **2018**, 237, 353-365	21.8	42
94	Synergies in the production of olefins by combined cracking of n-butane and methanol on a HZSM-5 zeolite catalyst. *Chemical Engineering Journal*, **2010**, 160, 760-769	14.7	40
93	Isotherms of chemical adsorption of bases on solid catalysts for acidity measurement. *Journal of Chemical Technology and Biotechnology*, **1994**, 60, 141-146	3.5	40
92	Controlling coke deactivation and cracking selectivity of MFI zeolite by H3PO4 or KOH modification. *Applied Catalysis A: General*, **2015**, 505, 105-115	5.1	38
91	Olefin production by cofeeding methanol and n-butane: Kinetic modeling considering the deactivation of HZSM-5 zeolite. *AICHE Journal*, **2011**, 57, 2841-2853	3.6	38
90	Kinetic Modeling ofn-Butane Cracking on HZSM-5 Zeolite Catalyst. *Industrial & Engineering Chemistry Research*, **2010**, 49, 8415-8423	3.9	38
89	Initiation Step and Reactive Intermediates in the Transformation of Methanol into Olefins over SAPO-18 Catalyst. *Industrial & Engineering Chemistry Research*, **2005**, 44, 7279-7286	3.9	37
88	Regeneration of a catalyst based on a SAPO-34 used in the transformation of methanol into olefins. *Journal of Chemical Technology and Biotechnology*, **1999**, 74, 1082-1088	3.5	37
87	Compositional insights and valorization pathways for carbonaceous material deposited during bio-oil thermal treatment. *ChemSusChem*, **2014**, 7, 2597-608	8.3	36
86	Upgrading of Bio-Oil in a Continuous Process with Dolomite Catalyst. *Energy & Fuels*, **2014**, 28, 6419-6428	4.6	35
85	Stability of CuZnOAl2O3/HZSM-5 and CuFe2O4/HZSM-5 catalysts in dimethyl ether steam reforming operating in reaction–regeneration cycles. *Fuel Processing Technology*, **2014**, 126, 145-154	7.2	35

84	Catalyst discrimination for olefin production by coupled methanol/n-butane cracking. *Applied Catalysis A: General*, **2010**, 383, 202-210	5.1	35
83	Cost-effective upgrading of biomass pyrolysis oil using activated dolomite as a basic catalyst. *Fuel Processing Technology*, **2019**, 195, 106142	7.2	34
82	Simultaneous modeling of the kinetics for n-pentane cracking and the deactivation of a HZSM-5 based catalyst. *Chemical Engineering Journal*, **2018**, 331, 818-830	14.7	34
81	Modifications in the HZSM-5 zeolite for the selective transformation of ethylene into propylene. *Applied Catalysis A: General*, **2014**, 479, 17-25	5.1	34
80	Causes of deactivation of bifunctional catalysts made up of CuO-ZnO-Al2O3 and desilicated HZSM-5 zeolite in DME steam reforming. *Applied Catalysis A: General*, **2014**, 483, 76-84	5.1	34
79	Spatial Distribution of Zeolite ZSM-5 within Catalyst Bodies Affects Selectivity and Stability of Methanol-to-Hydrocarbons Conversion. *ChemCatChem*, **2013**, 5, 2827-2831	5.2	34
78	Steam Reforming of the Bio-Oil Aqueous Fraction in a Fluidized Bed Reactor with in Situ CO2 Capture. *Industrial & Engineering Chemistry Research*, **2013**, 52, 17087-17098	3.9	34
77	Calculation of the kinetics of deactivation by coke in an integral reactor for a triangular scheme reaction. *Chemical Engineering Science*, **1993**, 48, 1077-1087	4.4	34
76	Acidity deterioration and coke deposition in a HZSM5 zeolite in the MTG process. *Studies in Surface Science and Catalysis*, **1994**, 88, 567-572	1.8	33
75	Reproducible performance of a Ni/La 2 O 3 Al 2 O 3 catalyst in ethanol steam reforming under reaction egeneration cycles. *Fuel Processing Technology*, **2016**, 152, 215-222	7.2	32
74	Kinetic Model for the Transformation of 1-Butene on a K-Modified HZSM-5 Catalyst. *Industrial & Engineering Chemistry Research*, **2014**, 53, 10599-10607	3.9	32
73	Kinetic behaviour of catalysts with different CuO-ZnO-Al2O3 metallic function compositions in DME steam reforming in a fluidized bed. *Applied Catalysis B: Environmental*, **2013**, 142-143, 315-322	21.8	30
72	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	6.7	30
71	ROLE OF WATER IN THE KINETIC MODELING OF METHANOL TRANSFORMATION INTO HYDROCARBONS ON HZSM-5 ZEOLITE. *Chemical Engineering Communications*, **2004**, 191, 944-967	2.2	30
70	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	6.7	29
69	Intensifying Propylene Production by 1-Butene Transformation on a K Modified HZSM-5 Zeolite-Catalyst. *Industrial & Engineering Chemistry Research*, **2014**, 53, 4614-4622	3.9	29
68	Effect of Operating Conditions on Dimethyl Ether Steam Reforming over a CuFe2O4/Al2O3 Bifunctional Catalyst. *Industrial & Engineering Chemistry Research*, **2015**, 54, 9722-9732	3.9	28
67	Calculation of the kinetics of deactivation by coke of a silica-alumina catalyst in the dehydration of 2-ethylhexanol. *Industrial & Engineering Chemistry Research*, **1993**, 32, 458-465	3.9	27

66	Aqueous-phase reforming of bio-oil aqueous fraction over nickel-based catalysts. *International Journal of Hydrogen Energy*, **2019**, 44, 13157-13168	6.7	25
65	Comparison of Ni and Co Catalysts for Ethanol Steam Reforming in a Fluidized Bed Reactor. *Catalysis Letters*, **2014**, 144, 1134-1143	2.8	25
64	Catalyst reactivation kinetics for methanol transformation into hydrocarbons. Expressions for designing reaction□regeneration cycles in isothermal and adiabatic fixed bed reactor. *Chemical Engineering Science*, **2001**, 56, 5059-5071	4.4	25
63	Acidity, Surface Species, and Mechanism of Methanol Transformation into Olefins on a SAPO-34. *Industrial & Engineering Chemistry Research*, **1998**, 37, 2336-2340	3.9	25
62	Temperature Programmed Oxidation Coupled with In Situ Techniques Reveal the Nature and Location of Coke Deposited on a Ni/La2O3-□Al2O3 Catalyst in the Steam Reforming of Bio-oil. *ChemCatChem*, **2018**, 10, 2311-2321	5.2	24
61	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	6.7	24
60	Selective dealumination of HZSM-5 zeolite boosts propylene by modifying 1-butene cracking pathway. *Applied Catalysis A: General*, **2017**, 543, 1-9	5.1	23
59	MTG fluidized bed reactor□regenerator unit with catalyst circulation: process simulation and operation of an experimental setup. *Chemical Engineering Science*, **2000**, 55, 3223-3235	4.4	23
58	Kinetic model of the MTG process taking into account the catalyst deactivation. Reactor simulation. *Chemical Engineering Science*, **1996**, 51, 3001-3006	4.4	23
57	Kinetic model considering catalyst deactivation for the steam reforming of bio-oil over Ni/La2O3-□Al2O3. *Chemical Engineering Journal*, **2018**, 332, 192-204	14.7	22
56	Comparison of Noble Metal- and Copper-Based Catalysts for the Step of Methanol Steam Reforming in the Dimethyl Ether Steam Reforming Process. *Industrial & Engineering Chemistry Research*, **2016**, 55, 3546-3555	3.9	22
55	Deactivation and acidity deterioration of a silica/alumina catalyst in the isomerization of cis-butene. *Industrial & Engineering Chemistry Research*, **1993**, 32, 588-593	3.9	22
54	Effect of Operating Conditions on Dimethyl Ether Steam Reforming in a Fluidized Bed Reactor with a CuO□ZnO□Al2O3 and Desilicated ZSM-5 Zeolite Bifunctional Catalyst. *Industrial & Engineering Chemistry Research*, **2014**, 53, 3462-3471	3.9	21
53	Deactivation kinetics of a HZSM-5 zeolite catalyst treated with alkali for the transformation of bio-ethanol into hydrocarbons. *AICHE Journal*, **2012**, 58, 526-537	3.6	21
52	Kinetic modelling of methylcyclohexane ring-opening over a HZSM-5 zeolite catalyst. *Chemical Engineering Journal*, **2008**, 140, 287-295	14.7	21
51	Behavior of a CuFe2O4/□Al2O3 Catalyst for the Steam Reforming of Dimethyl Ether in Reaction-Regeneration Cycles. *Industrial & Engineering Chemistry Research*, **2015**, 54, 11285-11294	3.9	20
50	Kinetics of the steam reforming of dimethyl ether over CuFe2O4/□Al2O3. *Chemical Engineering Journal*, **2016**, 306, 401-412	14.7	20
49	Oxidative Steam Reforming of Raw Bio-Oil over Supported and Bulk Ni Catalysts for Hydrogen Production. *Catalysts*, **2018**, 8, 322	4	20

48	Integration of Thermal Treatment and Catalytic Transformation for Upgrading Biomass Pyrolysis Oil. *International Journal of Chemical Reactor Engineering*, **2007**, 5,	1.2	20
47	Study of the preparation and composition of the metallic function for the selective hydrogenation of CO2 to gasoline over bifunctional catalysts. *Journal of Chemical Technology and Biotechnology*, **2003**, 78, 161-166	3.5	20
46	Comparison of Ni Based and Rh Based Catalyst Performance in the Oxidative Steam Reforming of Raw Bio-Oil. *Energy & Fuels*, **2017**, 31, 7147-7156	4.1	18
45	Reaction conditions effect and pathways in the oxidative steam reforming of raw bio-oil on a Rh/CeO2-ZrO2 catalyst in a fluidized bed reactor. *International Journal of Hydrogen Energy*, **2017**, 42, 29175-29185	6.7	18
44	On the dynamics and reversibility of the deactivation of a Rh/CeO2ZrO2 catalyst in raw bio-oil steam reforming. *International Journal of Hydrogen Energy*, **2019**, 44, 2620-2632	6.7	17
43	Role of Shape Selectivity and Catalyst Acidity in the Transformation of Chloromethane into Light Olefins. *Industrial & Engineering Chemistry Research*, **2015**, 54, 7822-7832	3.9	16
42	Kinetic Behavior of the SAPO-18 Catalyst in the Transformation of Methanol into Olefins. *Industrial & Engineering Chemistry Research*, **2005**, 44, 6605-6614	3.9	16
41	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	5.1	15
40	Conversion of syngas to liquid hydrocarbons over a two-component (Cr2O3□nO and ZSM-5 zeolite) catalyst:. *Chemical Engineering Science*, **2000**, 55, 1845-1855	4.4	15
39	Dual catalyst-sorbent role of dolomite in the steam reforming of raw bio-oil for producing H2-rich syngas. *Fuel Processing Technology*, **2020**, 200, 106316	7.2	15
38	Development of a bifunctional catalyst for dimethyl ether steam reforming with CuFe2O4 spinel as the metallic function. *Journal of Industrial and Engineering Chemistry*, **2016**, 36, 169-179	6.3	14
37	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	2.2	14
36	Stability of a Rh/CeO2□rO2 Catalyst in the Oxidative Steam Reforming of Raw Bio-oil. *Energy & Fuels*, **2018**, 32, 3588-3598	4.1	13
35	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	3.9	13
34	Reaction□egeneration cycles in the isomerization of cis-butene and calculation of the reactivation kinetics of a silica□lumina catalyst. *Chemical Engineering Science*, **1993**, 48, 2741-2752	4.4	13
33	Deactivation of Ni spinel derived catalyst during the oxidative steam reforming of raw bio-oil. *Fuel*, **2020**, 276, 117995	7.1	12
32	Reactivation of the HZSM-5 zeolite-based catalyst used in the MTG process. *AICHE Journal*, **1997**, 43, 1551-1558	3.6	12
31	MTG Process in a Fixed-Bed Reactor. Operation and Simulation of a Pseudoadiabatic Experimental Unit. *Industrial & Engineering Chemistry Research*, **2001**, 40, 6087-6098	3.9	12

30	MTG Process in a Fluidized Bed with Catalyst Circulation: Operation and Simulation of an Experimental Unit. *Industrial & Engineering Chemistry Research*, **1998**, 37, 4222-4230	3.9	11
29	COMPOSITION AND QUALITY OF THE GASOLINE OBTAINED FROM SYNGAS ON Cr2O3-ZnO/ZSM5 CATALYSTS. *Chemical Engineering Communications*, **1999**, 174, 1-19	2.2	10
28	Selective kinetic deactivation model for a triangular reaction scheme. *Chemical Engineering Science*, **1993**, 48, 2273-2282	4.4	10
27	Strategies for maximizing the bio-oil valorization by catalytic transformation. *Journal of Cleaner Production*, **2015**, 88, 345-348	10.3	9
26	Kinetic modelling for selective deactivation in the skeletal isomerization of n-butenes. *Chemical Engineering Science*, **1997**, 52, 2829-2835	4.4	9
25	A comprehensive approach for designing different configurations of isothermal reactors with fast catalyst deactivation. *Chemical Engineering Journal*, **2020**, 379, 122260	14.7	9
24	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	8
23	Global vision from the thermodynamics of the effect of the bio-oil composition and the reforming strategies in the H2 production and the energy requirement. *Energy Conversion and Management*, **2021**, 239, 114181	10.6	8
22	Effect of reaction conditions on the deactivation by coke of a NiAl2O4 spinel derived catalyst in the steam reforming of bio-oil. *Applied Catalysis B: Environmental*, **2021**, 297, 120445	21.8	8
21	Kinetic behaviour of commercial catalysts for methane reforming in ethanol steam reforming process. *Journal of Energy Chemistry*, **2014**, 23, 639-644	12	7
20	Joint Transformation of Methanol and n-Butane into Olefins on an HZSM-5 Zeolite Catalyst in Reaction−Regeneration Cycles. *Industrial & Engineering Chemistry Research*, **2012**, 51, 13073-13084	3.9	7
19	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	14.7	7
18	Kinetic Model for the Conversion of Chloromethane into Hydrocarbons over a HZSM-5 Zeolite Catalyst. *Industrial & Engineering Chemistry Research*, **2018**, 57, 908-919	3.9	6
17	Simulation and Optimization of Methanol Transformation into Hydrocarbons in an Isothermal Fixed-Bed Reactor under Reaction−Regeneration Cycles. *Industrial & Engineering Chemistry Research*, **1998**, 37, 2383-2390	3.9	6
16	Optimization of temperature-time sequences in reaction-regeneration cycles. Application to the isomerization of cis-butene. *Industrial & Engineering Chemistry Research*, **1993**, 32, 2542-2547	3.9	6
15	Role of zeolite properties in bio-oil deoxygenation and hydrocarbons production by catalytic cracking. *Fuel Processing Technology*, **2022**, 227, 107130	7.2	6
14	Study of the regeneration stage of the MTG process in a pseudoadiabatic fixed bed reactor. *Chemical Engineering Journal*, **2003**, 92, 141-150	14.7	5
13	Insights into the Reaction Routes for H Formation in the Ethanol Steam Reforming on a Catalyst Derived from NiAlO Spinel. *Energy & Fuels*, **2021**, 35, 17197-17211	4.1	5

12	Deactivation and Regeneration of a Chlorinated Alumina Catalyst Used in the Skeletal Isomerization of n-Butenes. *Industrial & Engineering Chemistry Research*, **1997**, 36, 5189-5195	3.9	4
11	Analysis of kinetic models of the methanol-to-gasoline (MTG) process in an integral reactor. *The Chemical Engineering Journal and the Biochemical Engineering Journal*, **1996**, 63, 45-51		4
10	Temperature vs. time sequences to palliate deactivation in parallel and in series-parallel with the main reaction: parametric study. *The Chemical Engineering Journal*, **1993**, 51, 167-176		4
9	Deactivation Kinetic Model in Catalytic PolymerizationsTaking into Account the Initiation Step. *Industrial & Engineering Chemistry Research*, **1996**, 35, 62-69	3.9	3
8	Spectro-kinetics of the methanol to hydrocarbons reaction combining online product analysis with UV□is and FTIR spectroscopies throughout the space time evolution. *Journal of Catalysis*, **2022**, 408, 115-127	7.3	3
7	The role of shape selectivity and intrinsic selectivity of acidic sites of the catalysts in the skeletal isomerization of n-butenes. *Journal of Chemical Technology and Biotechnology*, **1998**, 71, 6-14	3.5	2
6	Development of Alternative Catalysts Based on HZSM-5 Zeolite for the BTO Process. *International Journal of Chemical Reactor Engineering*, **2007**, 5,	1.2	2
5	Influence of HZSM-5-based catalyst deactivation on the performance of different reactor configurations for the conversion of bioethanol into hydrocarbons. *Fuel*, **2021**, 302, 121061	7.1	2
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