Ana Guadalupe Gayubo Cazorla

List of Publications by Year
in descending order

158 papers	8,988 citations	26610 56 h-index	48277 88 g-index
158 all docs	158 docs citations	158 times ranked	4306 citing authors

#	Article	IF	Citations
1	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.	1.8	402
2	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.	1.8	363
3	Coke formation and deactivation during catalytic reforming of biomass and waste pyrolysis products: A review. Renewable and Sustainable Energy Reviews, 2020, 119, 109600.	8.2	278
4	Monitoring Ni 0 and coke evolution during the deactivation of a Ni/La 2 O 3 â€“Î±Al 2 O 3 catalyst in ethanol steam reforming in a fluidized bed. Journal of Catalysis, 2015, 331, 181-192.	3.1	208
5	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.	3.1	175
6	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.	3.8	175
7	Role of acidity and microporous structure in alternative catalysts for the transformation of methanol into olefins. Applied Catalysis A: General, 2005, 283, 197-207.	2.2	164
8	Selective Production of Aromatics by Crude Bio-oil Valorization with a Nickel-Modified HZSM-5 Zeolite Catalyst. Energy & Fuels, 2010, 24, 2060-2070.	2.5	164
9	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.	2.5	161
10	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.	1.6	135
11	Selective production of olefins from bioethanol on HZSM-5 zeolite catalysts treated with NaOH. Applied Catalysis B: Environmental, 2010, 97, 299-306.	10.8	135
12	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.	10.8	134
13	Reaction pathway for ethanol steam reforming on a Ni/SiO 2 catalyst including coke formation. International Journal of Hydrogen Energy, 2014, 39, 18820-18834.	3.8	131
14	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.	2.2	126
15	Hydrothermally stable HZSM-5 zeolite catalysts for the transformation of crude bio-oil into hydrocarbons. Applied Catalysis B: Environmental, 2010, 100, 318-327.	10.8	124
16	Recent research progress on bioâ€oil conversion into bioâ€fuels and raw chemicals: a review. Journal of Chemical Technology and Biotechnology, 2019, 94, 670-689.	1.6	124
17	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.	1.8	123
18	Kinetic Description of the Catalytic Pyrolysis of Biomass in a Conical Spouted Bed Reactor. Energy & Fuels, 2005, 19, 765-774.	2.5	122

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19	Operating conditions for attenuating Ni/La2O3â€“Î±Al2O3 catalyst deactivation in the steam reforming of bio-oil aqueous fraction. Fuel Processing Technology, 2013, 115, 222-232.	3.7	122
20	Olefin Production by Catalytic Transformation of Crude Bio-Oil in a Two-Step Process. Industrial & Engineering Chemistry Research, 2010, 49, 123-131.	1.8	119
21	Catalysts of Ni/Î±-Al2O3 and Ni/La2O3-Î±Al2O3 for hydrogen production by steam reforming of bio-oil aqueous fraction with pyrolytic lignin retention. International Journal of Hydrogen Energy, 2013, 38, 1307-1318.	3.8	111
22	Effect of calcination/reduction conditions of Ni/La2O3â€“Î±Al2O3 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.	10.8	111
23	Kinetics of the irreversible deactivation of the HZSM-5 catalyst in the MTO process. Chemical Engineering Science, 2003, 58, 5239-5249.	1.9	108
24	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.	1.6	104
25	Deposition and Characteristics of Coke over a H-ZSM5 Zeolite-Based Catalyst in the MTG Process. Industrial & Engineering Chemistry Research, 1996, 35, 3991-3998.	1.8	103
26	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.	2.2	101
27	Kinetic Modeling of Methanol Transformation into Olefins on a SAPO-34 Catalyst. Industrial & Engineering Chemistry Research, 2000, 39, 292-300.	1.8	98
28	Deactivation of a CuOâˆ’ZnOâˆ’Al₂O₃/Î³-Al₂O₃ Catalyst in the Synthesis of Dimethyl Ether. Industrial & Engineering Chemistry Research, 2008, 47, 2238-2247.	1.8	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. Green Chemistry, 2017, 19, 4315-4333.	4.6	97
30	Hydrothermal stability of HZSM-5 catalysts modified with Ni for the transformation of bioethanol into hydrocarbons. Fuel, 2010, 89, 3365-3372.	3.4	96
31	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.	10.8	93
32	Modified HZSM-5 zeolites for intensifying propylene production in the transformation of 1-butene. Chemical Engineering Journal, 2014, 251, 80-91.	6.6	89
33	Steam reforming of raw bio-oil over Ni/La2O3-Î±Al2O3: Influence of temperature on product yields and catalyst deactivation. Fuel, 2018, 216, 463-474.	3.4	89
34	Attenuation of Catalyst Deactivation by Cofeeding Methanol for Enhancing the Valorisation of Crude Bio-oil. Energy & Fuels, 2009, 23, 4129-4136.	2.5	88
35	Kinetic model for the reaction of DME to olefins over a HZSM-5 zeolite catalyst. Chemical Engineering Journal, 2016, 302, 801-810.	6.6	88
36	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.	1.6	87

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37	Role of water in the kinetic modeling of catalyst deactivation in the MTG process. AIChE Journal, 2002, 48, 1561-1571.	1.8	87
38	Catalyst Equilibration for Transformation of Methanol into Hydrocarbons by Reactionâˆ’Regeneration Cycles. Industrial & Engineering Chemistry Research, 1996, 35, 2177-2182.	1.8	80
39	Biomass to hydrogen-rich gas via steam reforming of raw bio-oil over Ni/La2O3-Î±Al2O3 catalyst: Effect of space-time and steam-to-carbon ratio. Fuel, 2018, 216, 445-455.	3.4	79
40	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.	1.6	78
41	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.	1.6	75
42	Kinetic modelling for the transformation of bioethanol into olefins on a hydrothermally stable Niâ€"HZSM-5 catalyst considering the deactivation by coke. Chemical Engineering Journal, 2011, 167, 262-277.	6.6	73
43	Steam Reforming of Raw Bio-oil in a Fluidized Bed Reactor with Prior Separation of Pyrolytic Lignin. Energy & Fuels, 2013, 27, 7549-7559.	2.5	71
44	Origin and Nature of Coke in Ethanol Steam Reforming and Its Role in Deactivation of Ni/La₂O₃â€"Î±Al₂O₃ Catalyst. Industrial & Engineering Chemistry Research, 2019, 58, 14736-14751.	1.8	70
45	Catalyst deactivation by coking in the MTG process in fixed and fluidized bed reactors. Catalysis Today, 1997, 37, 239-248.	2.2	69
46	Role of Coke Characteristics in the Regeneration of a Catalyst for the MTG Process. Industrial & Engineering Chemistry Research, 1997, 36, 60-66.	1.8	67
47	Kinetic Modelling of the Transformation of Aqueous Ethanol into Hydrocarbons on a HZSM-5 Zeolite. Industrial & Engineering Chemistry Research, 2001, 40, 3467-3474.	1.8	67
48	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.	1.8	67
49	Role of Reaction-Medium Water on the Acidity Deterioration of a HZSM-5 Zeolite. Industrial & Engineering Chemistry Research, 2004, 43, 5042-5048.	1.8	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. Industrial & Engineering Chemistry Research, 2007, 46, 1981-1989.	1.8	65
51	Kinetics of Methanol Transformation into Hydrocarbons on a HZSM-5 Zeolite Catalyst at High Temperature (400âˆ'550 Â°C). Industrial & Engineering Chemistry Research, 2010, 49, 12371-12378.	1.8	64
52	Concentration-Dependent Kinetic Model for Catalyst Deactivation in the MTG Process. Industrial & Engineering Chemistry Research, 1996, 35, 81-89.	1.8	63
53	Effect of nickel incorporation on the acidity and stability of HZSM-5 zeolite in the MTO process. Catalysis Today, 2005, 106, 118-122.	2.2	62
54	Improving the DME steam reforming catalyst by alkaline treatment of the HZSM-5 zeolite. Applied Catalysis B: Environmental, 2013, 130-131, 73-83.	10.8	59

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55	Regeneration of NiAl2O4 spinel type catalysts used in the reforming of raw bio-oil. Applied Catalysis B: Environmental, 2018, 237, 353-365.	10.8	59
56	Deactivation kinetics for the conversion of dimethyl ether to olefins over a HZSM-5 zeolite catalyst. Chemical Engineering Journal, 2017, 311, 367-377.	6.6	58
57	Optimum operating conditions in ethanol steam reforming over a Ni/La2O3-Î±Al2O3 catalyst in a fluidized bed reactor. Fuel Processing Technology, 2018, 169, 207-216.	3.7	58
58	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.	6.6	53
59	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.	1.8	52
60	Thermodynamic comparison between bio-oil and ethanol steam reforming. International Journal of Hydrogen Energy, 2015, 40, 15963-15971.	3.8	52
61	Coke Aging and Its Incidence on Catalyst Regeneration. Industrial & Engineering Chemistry Research, 2003, 42, 3914-3921.	1.8	50
62	Isotherms of chemical adsorption of bases on solid catalysts for acidity measurement. Journal of Chemical Technology and Biotechnology, 1994, 60, 141-146.	1.6	48
63	Reaction scheme and kinetic modelling for the MTO process over a SAPO-18 catalyst. Catalysis Today, 2005, 106, 112-117.	2.2	47
64	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.	6.6	47
65	Initiation Step and Reactive Intermediates in the Transformation of Methanol into Olefins over SAPO-18 Catalyst. Industrial & Engineering Chemistry Research, 2005, 44, 7279-7286.	1.8	45
66	Controlling coke deactivation and cracking selectivity of MFI zeolite by H3PO4 or KOH modification. Applied Catalysis A: General, 2015, 505, 105-115.	2.2	45
67	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.	2.2	44
68	Temperature Programmed Oxidation Coupled with Inâ€…Situ Techniques Reveal the Nature and Location of Coke Deposited on a Ni/La₂O₃â€Î±Al₂O₃ Catalyst in the Steam Reforming of Bioâ€oil. ChemCatChem, 2018, 10, 2311-2321.	1.8	44
69	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.	10.8	44
70	Cost-effective upgrading of biomass pyrolysis oil using activated dolomite as a basic catalyst. Fuel Processing Technology, 2019, 195, 106142.	3.7	43
71	Aqueous-phase reforming of bio-oil aqueous fraction over nickel-based catalysts. International Journal of Hydrogen Energy, 2019, 44, 13157-13168.	3.8	43
72	Upgrading of Bio-Oil in a Continuous Process with Dolomite Catalyst. Energy & Fuels, 2014, 28, 6419-6428.	2.5	42

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73	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.	1.6	41
74	Compositional Insights and Valorization Pathways for Carbonaceous Material Deposited During Bioâ€Oil Thermal Treatment. ChemSusChem, 2014, 7, 2597-2608.	3.6	41
75	Kinetic Modeling of <i>n</i>-Butane Cracking on HZSM-5 Zeolite Catalyst. Industrial & Engineering Chemistry Research, 2010, 49, 8415-8423.	1.8	40
76	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.	1.8	40
77	Stability of CuZnOAl2O3/HZSM-5 and CuFe2O4/HZSM-5 catalysts in dimethyl ether steam reforming operating in reactionâ€“regeneration cycles. Fuel Processing Technology, 2014, 126, 145-154.	3.7	40
78	Olefin production by cofeeding methanol and <i>n</i>â€butane: Kinetic modeling considering the deactivation of HZSMâ€5 zeolite. AIChE Journal, 2011, 57, 2841-2853.	1.8	39
79	Modifications in the HZSM-5 zeolite for the selective transformation of ethylene into propylene. Applied Catalysis A: General, 2014, 479, 17-25.	2.2	39
80	Spatial Distribution of Zeolite ZSMâ€5 within Catalyst Bodies Affects Selectivity and Stability of Methanolâ€toâ€Hydrocarbons Conversion. ChemCatChem, 2013, 5, 2827-2831.	1.8	38
81	Calculation of the kinetics of deactivation by coke in an integral reactor for a triangular scheme reaction. Chemical Engineering Science, 1993, 48, 1077-1087.	1.9	36
82	Acidity deterioration and coke deposition in a HZSM5 zeolite in the MTG process. Studies in Surface Science and Catalysis, 1994, 88, 567-572.	1.5	36
83	Catalyst discrimination for olefin production by coupled methanol/n-butane cracking. Applied Catalysis A: General, 2010, 383, 202-210.	2.2	36
84	Reproducible performance of a Ni/La2O3â€“Î±Al2O3 catalyst in ethanol steam reforming under reactionâ€“regeneration cycles. Fuel Processing Technology, 2016, 152, 215-222.	3.7	36
85	Kinetic model considering catalyst deactivation for the steam reforming of bio-oil over Ni/La2O3-Î±Al2O3. Chemical Engineering Journal, 2018, 332, 192-204.	6.6	36
86	Role of zeolite properties in bio-oil deoxygenation and hydrocarbons production by catalytic cracking. Fuel Processing Technology, 2022, 227, 107130.	3.7	36
87	ROLE OF WATER IN THE KINETIC MODELING OF METHANOL TRANSFORMATION INTO HYDROCARBONS ON HZSM-5 ZEOLITE. Chemical Engineering Communications, 2004, 191, 944-967.	1.5	35
88	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.	3.8	35
89	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.	3.8	34
90	Kinetic Model for the Transformation of 1-Butene on a K-Modified HZSM-5 Catalyst. Industrial & Engineering Chemistry Research, 2014, 53, 10599-10607.	1.8	34

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91	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.	10.8	32
92	Intensifying Propylene Production by 1-Butene Transformation on a K Modified HZSM-5 Zeolite-Catalyst. Industrial & Engineering Chemistry Research, 2014, 53, 4614-4622.	1.8	32
93	Effect of Operating Conditions on Dimethyl Ether Steam Reforming over a CuFe₂O₄/Î³-Al₂O₃ Bifunctional Catalyst. Industrial & Engineering Chemistry Research, 2015, 54, 9722-9732.	1.8	32
94	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.	3.8	31
95	Oxidative Steam Reforming of Raw Bio-Oil over Supported and Bulk Ni Catalysts for Hydrogen Production. Catalysts, 2018, 8, 322.	1.6	31
96	Selective dealumination of HZSM-5 zeolite boosts propylene by modifying 1-butene cracking pathway. Applied Catalysis A: General, 2017, 543, 1-9.	2.2	30
97	Comparison of Ni and Co Catalysts for Ethanol Steam Reforming in a Fluidized Bed Reactor. Catalysis Letters, 2014, 144, 1134-1143.	1.4	29
98	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.	1.8	29
99	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.	1.8	28
100	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.	3.7	28
101	Acidity, Surface Species, and Mechanism of Methanol Transformation into Olefins on a SAPO-34. Industrial & Engineering Chemistry Research, 1998, 37, 2336-2340.	1.8	27
102	Deactivation kinetics of a HZSMâ€5 zeolite catalyst treated with alkali for the transformation of bioâ€ethanol into hydrocarbons. AIChE Journal, 2012, 58, 526-537.	1.8	27
103	Catalyst reactivation kinetics for methanol transformation into hydrocarbons. Expressions for designing reactionâ€"regeneration cycles in isothermal and adiabatic fixed bed reactor. Chemical Engineering Science, 2001, 56, 5059-5071.	1.9	26
104	Deactivation of Ni spinel derived catalyst during the oxidative steam reforming of raw bio-oil. Fuel, 2020, 276, 117995.	3.4	26
105	MTG fluidized bed reactorâ€"regenerator unit with catalyst circulation: process simulation and operation of an experimental setup. Chemical Engineering Science, 2000, 55, 3223-3235.	1.9	25
106	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.	3.8	25
107	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.	3.8	25
108	Kinetic model of the MTG process taking into account the catalyst deactivation. Reactor simulation. Chemical Engineering Science, 1996, 51, 3001-3006.	1.9	24

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109	Stability of a Rh/CeO2â€“ZrO2 Catalyst in the Oxidative Steam Reforming of Raw Bio-oil. Energy & Fuels, 2018, 32, 3588-3598.	2.5	24
110	Deactivation and acidity deterioration of a silica/alumina catalyst in the isomerization of cis-butene. Industrial & Engineering Chemistry Research, 1993, 32, 588-593.	1.8	23
111	Study of the preparation and composition of the metallic function for the selective hydrogenation of CO2to gasoline over bifunctional catalysts. Journal of Chemical Technology and Biotechnology, 2003, 78, 161-166.	1.6	23
112	Kinetic modelling of methylcyclohexane ring-opening over a HZSM-5 zeolite catalyst. Chemical Engineering Journal, 2008, 140, 287-295.	6.6	23
113	Effect of Operating Conditions on Dimethyl Ether Steam Reforming in a Fluidized Bed Reactor with a CuOâ€“ZnOâ€“Al2O3 and Desilicated ZSM-5 Zeolite Bifunctional Catalyst. Industrial & Engineering Chemistry Research, 2014, 53, 3462-3471.	1.8	23
114	Kinetics of the steam reforming of dimethyl ether over CuFe 2 O 4 /Î³-Al 2 O 3. Chemical Engineering Journal, 2016, 306, 401-412.	6.6	22
115	Integration of Thermal Treatment and Catalytic Transformation for Upgrading Biomass Pyrolysis Oil. International Journal of Chemical Reactor Engineering, 2007, 5, .	0.6	21
116	Behavior of a CuFe₂O₄/Î³-Al₂O₃ Catalyst for the Steam Reforming of Dimethyl Ether in Reaction-Regeneration Cycles. Industrial & Engineering Chemistry Research, 2015, 54, 11285-11294.	1.8	21
117	Role of Shape Selectivity and Catalyst Acidity in the Transformation of Chloromethane into Light Olefins. Industrial & Engineering Chemistry Research, 2015, 54, 7822-7832.	1.8	20
118	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.	2.2	20
119	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.	3.7	20
120	Comparison of Ni Based and Rh Based Catalyst Performance in the Oxidative Steam Reforming of Raw Bio-Oil. Energy & Fuels, 2017, 31, 7147-7156.	2.5	19
121	Insights into the Reaction Routes for H₂ Formation in the Ethanol Steam Reforming on a Catalyst Derived from NiAl₂O₄ Spinel. Energy & Fuels, 2021, 35, 17197-17211.	2.5	19
122	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.	4.4	18
123	Conversion of syngas to liquid hydrocarbons over a two-component (Cr2O3â€“ZnO and ZSM-5 zeolite) catalyst:. Chemical Engineering Science, 2000, 55, 1845-1855.	1.9	17
124	Kinetic Behavior of the SAPO-18 Catalyst in the Transformation of Methanol into Olefins. Industrial & Engineering Chemistry Research, 2005, 44, 6605-6614.	1.8	17
125	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.	2.9	17
126	Unveiling the deactivation by coke of NiAl2O4 spinel derived catalysts in the bio-oil steam reforming: Role of individual oxygenates. Fuel, 2022, 321, 124009.	3.4	17

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127	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.	1.8	16
128	A comprehensive approach for designing different configurations of isothermal reactors with fast catalyst deactivation. Chemical Engineering Journal, 2020, 379, 122260.	6.6	16
129	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.	6.6	16
130	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.	3.4	16
131	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.	1.5	15
132	Reactionâ€"regeneration cycles in the isomerization of cis-butene and calculation of the reactivation kinetics of a silicaâ€"alumina catalyst. Chemical Engineering Science, 1993, 48, 2741-2752.	1.9	14
133	Reactivation of the HZSM-5 zeolite-based catalyst used in the MTG process. AICHE Journal, 1997, 43, 1551-1558.	1.8	14
134	MTG Process in a Fixed-Bed Reactor. Operation and Simulation of a Pseudoadiabatic Experimental Unit. Industrial & Engineering Chemistry Research, 2001, 40, 6087-6098.	1.8	13
135	Spectro-kinetics of the methanol to hydrocarbons reaction combining online product analysis with UVâ€"vis and FTIR spectroscopies throughout the space time evolution. Journal of Catalysis, 2022, 408, 115-127.	3.1	13
136	MTG Process in a Fluidized Bed with Catalyst Circulation:Â Operation and Simulation of an Experimental Unit. Industrial & Engineering Chemistry Research, 1998, 37, 4222-4230.	1.8	12
137	Strategies for maximizing the bio-oil valorization by catalytic transformation. Journal of Cleaner Production, 2015, 88, 345-348.	4.6	11
138	Kinetic Model for the Conversion of Chloromethane into Hydrocarbons over a HZSM-5 Zeolite Catalyst. Industrial & Engineering Chemistry Research, 2018, 57, 908-919.	1.8	11
139	Selective kinetic deactivation model for a triangular reaction scheme. Chemical Engineering Science, 1993, 48, 2273-2282.	1.9	10
140	Optimization of temperature-time sequences in reaction-regeneration cycles. Application to the isomerization of cis-butene. Industrial & Engineering Chemistry Research, 1993, 32, 2542-2547.	1.8	10
141	COMPOSITION AND QUALITY OF THE GASOLINE OBTAINED FROM SYNGAS ON Cr2O3-ZnO/ZSM5 CATALYSTS. Chemical Engineering Communications, 1999, 174, 1-19.	1.5	10
142	Kinetic modelling for selective deactivation in the skeletal isomerization of n-butenes. Chemical Engineering Science, 1997, 52, 2829-2835.	1.9	9
143	Simulation and Optimization of Methanol Transformation into Hydrocarbons in an Isothermal Fixed-Bed Reactor under Reactionâ˘'Regeneration Cycles. Industrial & Engineering Chemistry Research, 1998, 37, 2383-2390.	1.8	8
144	Kinetic behaviour of commercial catalysts for methane reforming in ethanol steam reforming process. Journal of Energy Chemistry, 2014, 23, 639-644.	7.1	8

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145	Joint Transformation of Methanol and n-Butane into Olefins on an HZSM-5 Zeolite Catalyst in Reactionâ€“Regeneration Cycles. Industrial & Engineering Chemistry Research, 2012, 51, 13073-13084.	1.8	7
146	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.	0.4	6
147	Study of the regeneration stage of the MTG process in a pseudoadiabatic fixed bed reactor. Chemical Engineering Journal, 2003, 92, 141-150.	6.6	5
148	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.	0.1	4
149	Deactivation and Regeneration of a Chlorinated Alumina Catalyst Used in the Skeletal Isomerization of n-Butenes. Industrial & Engineering Chemistry Research, 1997, 36, 5189-5195.	1.8	4
150	Stability of a NiAl2O4 Derived Catalyst in the Ethanol Steam Reforming in Reaction-Regeneration Cycles: Effect of Reduction Temperature. Catalysts, 2022, 12, 550.	1.6	4
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