# Andres Tomas Aguayo

## List of Publications by Year in Descending Order



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|---|---|---|---|
| 161 papers | 6,960 citations | 50 h-index | 77 g-index |
| 168 ext. papers | 7,641 ext. citations | 6.3 avg, IF | 5.81 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 161 | Streamlining the estimation of kinetic parameters using periodic reaction conditions: The methanol-to-hydrocarbon reaction as a case study. *Chemical Engineering Journal*, **2022**, 435, 134800 | 14.7 | |
| 160 | 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 |
| 159 | A techno-economic and life cycle assessment for the production of green methanol from CO2: catalyst and process bottlenecks. *Journal of Energy Chemistry*, **2021**, 68, 255-255 | 12 | 5 |
| 158 | Experimental implementation of a catalytic membrane reactor for the direct synthesis of DME from H2+CO/CO2. *Chemical Engineering Science*, **2021**, 234, 116396 | 4.4 | 11 |
| 157 | Implications of Co-Feeding Water on the Growth Mechanisms of Retained Species on a SAPO-18 Catalyst during the Methanol-to-Olefins Reaction. *ChemCatChem*, **2021**, 13, 3140-3154 | 5.2 | 2 |
| 156 | Macro-kinetic model for CuO□nO□rO2@SAPO-11 core-shell catalyst in the direct synthesis of DME from CO/CO2. *Renewable Energy*, **2021**, 169, 1242-1251 | 8.1 | 7 |
| 155 | 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 |
| 154 | Model validation of a packed bed LTA membrane reactor for the direct synthesis of DME from CO/CO2. *Chemical Engineering Journal*, **2021**, 408, 127356 | 14.7 | 7 |
| 153 | Combined Ex and In Situ Measurements Elucidate the Dynamics of Retained Species in ZSM-5 and SAPO-18 Catalysts Used in the Methanol-to-Olefins Reaction. *Chemistry - A European Journal*, **2021**, 27, 6719-6731 | 4.8 | 2 |
| 152 | The intrinsic effect of co-feeding water on the formation of active/deactivating species in the methanol-to-hydrocarbons reaction on ZSM-5 zeolite. *Catalysis Science and Technology*, **2021**, 11, 1269-1281 | 5.5 | 2 |
| 151 | Coke deactivation and regeneration of HZSM-5 zeolite catalysts in the oligomerization of 1-butene. *Applied Catalysis B: Environmental*, **2021**, 291, 120076 | 21.8 | 13 |
| 150 | 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 |
| 149 | Activation of n-pentane while prolonging HZSM-5 catalyst lifetime during its combined reaction with methanol or dimethyl ether. *Catalysis Today*, **2020**, | 5.3 | 8 |
| 148 | Quenching the Deactivation in the Methanol-to-Olefin Reaction by Using Tandem Fixed-Beds of ZSM-5 and SAPO-18 Catalysts. *Industrial & Engineering Chemistry Research*, **2020**, 59, 13892-13905 | 3.9 | 5 |
| 147 | Low-pressure oligomerization of 1-butene to liquid fuels on HZSM-5 zeolite catalysts: Effect of operating conditions. *Journal of Industrial and Engineering Chemistry*, **2020**, 87, 234-241 | 6.3 | 2 |
| 146 | Kinetic modeling of CO2+CO hydrogenation to DME over a CuO-ZnO-ZrO2@SAPO-11 core-shell catalyst. *Fuel Processing Technology*, **2020**, 206, 106434 | 7.2 | 14 |
| 145 | Strategies for the Intensification of CO2 Valorization in the One-Step Dimethyl Ether Synthesis Process. *Industrial & Engineering Chemistry Research*, **2020**, 59, 713-722 | 3.9 | 13 |

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| 144 | Operating conditions to maximize clean liquid fuels yield by oligomerization of 1-butene on HZSM-5 zeolite catalysts. *Energy*, **2020**, 207, 118317 | 7.9 | 3 |
| 143 | ReactorRegenerator System for the Dimethyl Ether-to-Olefins Process over HZSM-5 Catalysts: Conceptual Development and Analysis of the Process Variables. *Industrial & Engineering Chemistry Research*, **2020**, 59, 14689-14702 | 3.9 | 13 |
| 142 | MOF-derived/zeolite hybrid catalyst for the production of light olefins from CO2. *ChemCatChem*, **2020**, 12, 5750-5758 | 5.2 | 13 |
| 141 | Slowing down the deactivation of H-ZSM-5 zeolite catalyst in the methanol-to-olefin (MTO) reaction by P or Zn modifications. *Catalysis Today*, **2020**, 348, 243-256 | 5.3 | 32 |
| 140 | A comprehensive approach for designing different configurations of isothermal reactors with fast catalyst deactivation. *Chemical Engineering Journal*, **2020**, 379, 122260 | 14.7 | 9 |
| 139 | Kinetics and reactor modeling of the conversion of n-pentane using HZSM-5 catalysts with different Si/Al ratios. *Reaction Chemistry and Engineering*, **2019**, 4, 1922-1934 | 4.9 | 8 |
| 138 | Kinetic and Deactivation Differences Among Methanol, Dimethyl Ether and Chloromethane as Stock for Hydrocarbons. *ChemCatChem*, **2019**, 11, 5444-5456 | 5.2 | 7 |
| 137 | Kinetic and Deactivation Differences Among Methanol, Dimethyl Ether and Chloromethane as Stock for Hydrocarbons. *ChemCatChem*, **2019**, 11, 5406-5406 | 5.2 | |
| 136 | Catalyst configuration for the direct synthesis of dimethyl ether from CO and CO2 hydrogenation on CuOZnOMnO/SAPO-18 catalysts. *Reaction Kinetics, Mechanisms and Catalysis*, **2018**, 124, 401-418 | 1.6 | 12 |
| 135 | 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 |
| 134 | Reaction network of the chloromethane conversion into light olefins using a HZSM-5 zeolite catalyst. *Journal of Industrial and Engineering Chemistry*, **2018**, 61, 427-436 | 6.3 | 7 |
| 133 | Optimization of the Zr Content in the CuO-ZnO-ZrO2/SAPO-11 Catalyst for the Selective Hydrogenation of CO+CO2 Mixtures in the Direct Synthesis of Dimethyl Ether. *Industrial & Engineering Chemistry Research*, **2018**, 57, 1169-1178 | 3.9 | 21 |
| 132 | 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 |
| 131 | Capability of the Direct Dimethyl Ether Synthesis Process for the Conversion of Carbon Dioxide. *Applied Sciences (Switzerland)*, **2018**, 8, 677 | 2.6 | 12 |
| 130 | Kinetic modeling of the direct synthesis of dimethyl ether over a CuO-ZnO-MnO/SAPO-18 catalyst and assessment of the CO2 conversion. *Fuel Processing Technology*, **2018**, 181, 233-243 | 7.2 | 19 |
| 129 | Insight into the Deactivation and Regeneration of HZSM-5 Zeolite Catalysts in the Conversion of Dimethyl Ether to Olefins. *Industrial & Engineering Chemistry Research*, **2018**, 57, 13689-13702 | 3.9 | 37 |
| 128 | Upgrading of sewage sludge by demineralization and physical activation with CO 2 : Application for methylene blue and phenol removal. *Microporous and Mesoporous Materials*, **2017**, 250, 88-99 | 5.3 | 13 |
| 127 | A comparative thermodynamic study on the CO2 conversion in the synthesis of methanol and of DME. *Energy*, **2017**, 120, 796-804 | 7.9 | 69 |

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| 126 | Effect of the content of CO2 and H2 in the feed on the conversion of CO2 in the direct synthesis of dimethyl ether over a CuOZnOAl2O3/SAPO-18 catalyst. *International Journal of Hydrogen Energy*, **2017**, 42, 27130-27138 | 6.7 | 12 |
| 125 | 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 |
| 124 | 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 |
| 123 | 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 |
| 122 | Nature and Location of Carbonaceous Species in a Composite HZSM-5 Zeolite Catalyst during the Conversion of Dimethyl Ether into Light Olefins. *Catalysts*, **2017**, 7, 254 | 4 | 27 |
| 121 | Direct synthesis of dimethyl ether from syngas on CuO ZnO MnO/SAPO-18 bifunctional catalyst. *International Journal of Hydrogen Energy*, **2016**, 41, 18015-18026 | 6.7 | 23 |
| 120 | Kinetics of the steam reforming of dimethyl ether over CuFe2O4/□Al2O3. *Chemical Engineering Journal*, **2016**, 306, 401-412 | 14.7 | 20 |
| 119 | Crystal structure of K0.75[Fe(II) 3.75Fe(III) 1.25(HPO3)6]□0.5H2O, an open-framework iron phosphite with mixed-valent Fe(II)/Fe(III) ions. *Acta Crystallographica Section E: Crystallographic Communications*, **2016**, 72, 63-5 | 0.7 | 4 |
| 118 | Performance of CuO□ZnO□ZrO2 and CuO□ZnO□MnO as metallic functions and SAPO-18 as acid function of the catalyst for the synthesis of DME co-feeding CO2. *Fuel Processing Technology*, **2016**, 152, 34-45 | 7.2 | 46 |
| 117 | Preparation of carbon-based adsorbents from the pyrolysis of sewage sludge with CO2. Investigation of the acid washing procedure. *Desalination and Water Treatment*, **2016**, 57, 16053-16065 | | 10 |
| 116 | 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 |
| 115 | Effect of the Acidity of HZSM-5 Zeolite and the Binder in the DME Transformation to Olefins. *Industrial & Engineering Chemistry Research*, **2016**, 55, 1513-1521 | 3.9 | 77 |
| 114 | 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 |
| 113 | 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 |
| 112 | Effect of the Operating Conditions in the Transformation of DME to olefins over a HZSM-5 Zeolite Catalyst. *Industrial & Engineering Chemistry Research*, **2016**, 55, 6569-6578 | 3.9 | 45 |
| 111 | Comparison of HZSM-5 Zeolite and SAPO (-18 and -34) Based Catalysts for the Production of Light Olefins from DME. *Catalysis Letters*, **2016**, 146, 1892-1902 | 2.8 | 13 |
| 110 | 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 |
| 109 | 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 |

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| 108 | 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 |
| 107 | Kinetic Modeling of the Hydrotreating and Hydrocracking Stages for Upgrading Scrap Tires Pyrolysis Oil (STPO) toward High-Quality Fuels. *Energy & Fuels*, **2015**, 29, 7542-7553 | 4.1 | 21 |
| 106 | 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 |
| 105 | Composite AgVO3@V1.65+V0.44+O4.8 hydrogels and xerogels for iodide capture. *Journal of Materials Chemistry A*, **2015**, 3, 19996-20012 | 13 | 12 |
| 104 | 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 |
| 103 | Modified HZSM-5 zeolites for intensifying propylene production in the transformation of 1-butene. *Chemical Engineering Journal*, **2014**, 251, 80-91 | 14.7 | 80 |
| 102 | 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 |
| 101 | Two appealing alternatives for MOFs synthesis: solvent-free oven heating vs. microwave heating. *RSC Advances*, **2014**, 4, 60409-60412 | 3.7 | 24 |
| 100 | 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 |
| 99 | 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 |
| 98 | 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 |
| 97 | 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 |
| 96 | Improved Performance of a PBM Reactor for Simultaneous CO2 Capture and DME Synthesis. *Industrial & Engineering Chemistry Research*, **2014**, 53, 19479-19487 | 3.9 | 22 |
| 95 | Membrane Reactors for in Situ Water Removal: A Review of Applications. *Industrial & Engineering Chemistry Research*, **2013**, 52, 10342-10354 | 3.9 | 91 |
| 94 | 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 |
| 93 | Influence of the membrane properties on the catalytic production of dimethyl ether with in situ water removal for the successful capture of co2. *Chemical Engineering Journal*, **2013**, 234, 140-148 | 14.7 | 52 |
| 92 | 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 |
| 91 | 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 |

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| 90 | Catalysts of Ni/α-Al2O3 and Ni/La2O3-α-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 | 6.7 | 99 |
| 89 | 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 |
| 88 | 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 |
| 87 | 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 |
| 86 | A direct reaction approach for the synthesis of zeolitic imidazolate frameworks: template and temperature mediated control on network topology and crystal size. *Chemical Communications*, **2012**, 48, 9930-2 | 5.8 | 55 |
| 85 | Deactivating Species Deposited on Pt−Pd Catalysts in the Hydrocracking of Light-Cycle Oil. *Energy & Fuels*, **2012**, 26, 1509-1519 | 4.1 | 56 |
| 84 | Kinetic modelling of dimethyl ether synthesis from (H2 + CO2) by considering catalyst deactivation. *Chemical Engineering Journal*, **2011**, 174, 660-667 | 14.7 | 86 |
| 83 | Kinetic modelling for the transformation of bioethanol into olefins on a hydrothermally stable Ni−HZSM-5 catalyst considering the deactivation by coke. *Chemical Engineering Journal*, **2011**, 167, 262-277 | 14.7 | 64 |
| 82 | 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 |
| 81 | Open-framework copper adeninate compounds with three-dimensional microchannels tailored by aliphatic monocarboxylic acids. *Inorganic Chemistry*, **2011**, 50, 5330-2 | 5.1 | 45 |
| 80 | A straightforward synthesis of carbon nanotube−perovskite composites for solid oxide fuel cells. *Journal of Materials Chemistry*, **2011**, 21, 10273 | | 9 |
| 79 | Insights into the coke deposited on HZSM-5, Hβ and HY zeolites during the cracking of polyethylene. *Applied Catalysis B: Environmental*, **2011**, 104, 91-100 | 21.8 | 160 |
| 78 | Co-feeding water to attenuate deactivation of the catalyst metallic function (CuO−ZnO−Al2O3) by coke in the direct synthesis of dimethyl ether. *Applied Catalysis B: Environmental*, **2011**, 106, 167-167 | 21.8 | 16 |
| 77 | 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 |
| 76 | 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 |
| 75 | Four nodal self-catenated [{Ni8(Bpy)16}V24O68]·8.5(H2O), combining three dimensional metal−organic and inorganic frameworks. *CrystEngComm*, **2010**, 12, 1880 | 3.3 | 23 |
| 74 | Deactivation Kinetics for Direct Dimethyl Ether Synthesis on a CuO−ZnO−Al2O3/γ-Al2O3 Catalyst. *Industrial & Engineering Chemistry Research*, **2010**, 49, 481-489 | 3.9 | 38 |
| 73 | 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 |

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| 72 | Hydrothermal stability of HZSM-5 catalysts modified with Ni for the transformation of bioethanol into hydrocarbons. *Fuel*, **2010**, 89, 3365-3372 | 7.1 | 86 |
| 71 | Catalyst discrimination for olefin production by coupled methanol/n-butane cracking. *Applied Catalysis A: General*, **2010**, 383, 202-210 | 5.1 | 35 |
| 70 | Regeneration of CuO-ZnO-Al2O3/Al2O3 catalyst in the direct synthesis of dimethyl ether. *Applied Catalysis B: Environmental*, **2010**, 94, 108-116 | 21.8 | 56 |
| 69 | 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 |
| 68 | 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 |
| 67 | Microporous vanadyl-arsenate with the template incorporated exhibiting sorption and catalytic properties. *Chemical Communications*, **2008**, 4738-40 | 5.8 | 12 |
| 66 | Deactivation of a CuOZnOAl2O3/Al2O3 Catalyst in the Synthesis of Dimethyl Ether. *Industrial & Engineering Chemistry Research*, **2008**, 47, 2238-2247 | 3.9 | 89 |
| 65 | 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 |
| 64 | Reactivity between La(Sr)FeO3 cathode, doped CeO2 interlayer and yttria-stabilized zirconia electrolyte for solid oxide fuel cell applications. *Journal of Power Sources*, **2008**, 185, 401-410 | 8.9 | 52 |
| 63 | 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 |
| 62 | Kinetic Modeling of Dimethyl Ether Synthesis in a Single Step on a CuOZnOAl2O3/Al2O3 Catalyst. *Industrial & Engineering Chemistry Research*, **2007**, 46, 5522-5530 | 3.9 | 139 |
| 61 | 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 |
| 60 | Direct Synthesis of Dimethyl Ether From (H2+CO) and (H2+CO2) Feeds. Effect of Feed Composition. *International Journal of Chemical Reactor Engineering*, **2005**, 3, | 1.2 | 17 |
| 59 | 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 |
| 58 | Effect of operating conditions on the synthesis of dimethyl ether over a CuO-ZnO-Al2O3/NaHZSM-5 bifunctional catalyst. *Catalysis Today*, **2005**, 107-108, 467-473 | 5.3 | 125 |
| 57 | Deactivation and regeneration of hybrid catalysts in the single-step synthesis of dimethyl ether from syngas and CO2. *Catalysis Today*, **2005**, 106, 265-270 | 5.3 | 139 |
| 56 | 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 |
| 55 | 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 |

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| 54 | 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 |
| 53 | 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 |
| 52 | 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 |
| 51 | 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 |
| 50 | 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 |
| 49 | Kinetics of the irreversible deactivation of the HZSM-5 catalyst in the MTO process. *Chemical Engineering Science*, **2003**, 58, 5239-5249 | 4.4 | 100 |
| 48 | 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 |
| 47 | Coke Aging and Its Incidence on Catalyst Regeneration. *Industrial & Engineering Chemistry Research*, **2003**, 42, 3914-3921 | 3.9 | 48 |
| 46 | Fe(AsO4): a new iron(III) arsenate synthesized from thermal treatment of (NH4)[Fe(AsO4)F]. *Chemical Communications*, **2003**, 622-3 | 5.8 | 8 |
| 45 | Role of water in the kinetic modeling of catalyst deactivation in the MTG process. *AICHE Journal*, **2002**, 48, 1561-1571 | 3.6 | 82 |
| 44 | 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 |
| 43 | 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 |
| 42 | Catalyst reactivation kinetics for methanol transformation into hydrocarbons. Expressions for designing reaction□egeneration cycles in isothermal and adiabatic fixed bed reactor. *Chemical Engineering Science*, **2001**, 56, 5059-5071 | 4.4 | 25 |
| 41 | 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 |
| 40 | 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 |
| 39 | MTG fluidized bed reactor□egenerator unit with catalyst circulation: process simulation and operation of an experimental setup. *Chemical Engineering Science*, **2000**, 55, 3223-3235 | 4.4 | 23 |
| 38 | Kinetic Modeling of Methanol Transformation into Olefins on a SAPO-34 Catalyst. *Industrial & Engineering Chemistry Research*, **2000**, 39, 292-300 | 3.9 | 88 |
| 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 |

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| 36 | 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 |
| 35 | 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 |
| 34 | 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 |
| 33 | 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 |
| 32 | Study of Physical Mixtures of Cr2O3−ZnO and ZSM-5 Catalysts for the Transformation of Syngas into Liquid Hydrocarbons. *Industrial & Engineering Chemistry Research*, **1998**, 37, 1211-1219 | 3.9 | 46 |
| 31 | 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 |
| 30 | 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 |
| 29 | 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 |
| 28 | Design and Operation of a Catalytic Polymerization Reactor in a Dilute Spouted Bed Regime. *Industrial & Engineering Chemistry Research*, **1997**, 36, 1637-1643 | 3.9 | 55 |
| 27 | Catalyst deactivation by coking in the MTG process in fixed and fluidized bed reactors. *Catalysis Today*, **1997**, 37, 239-248 | 5.3 | 63 |
| 26 | Reactivation of the HZSM-5 zeolite-based catalyst used in the MTG process. *AICHE Journal*, **1997**, 43, 1551-1558 | 3.6 | 12 |
| 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 | 3.9 | 92 |
| 24 | Concentration-Dependent Kinetic Model for Catalyst Deactivation in the MTG Process. *Industrial & Engineering Chemistry Research*, **1996**, 35, 81-89 | 3.9 | 59 |
| 23 | Catalyst Equilibration for Transformation of Methanol into Hydrocarbons by Reaction−Regeneration Cycles. *Industrial & Engineering Chemistry Research*, **1996**, 35, 2177-2182 | 3.9 | 73 |
| 22 | 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 |
| 21 | 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 |
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