

# JosÃ© A GonzÃ¡lez-Marcos

## List of Publications by Year in descending order

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Version: 2024-02-01

80  
papers

2,939  
citations

159525

30  
h-index

168321

53  
g-index

80  
all docs

80  
docs citations

80  
times ranked

2791  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Isotopic and in situ DRIFTS study of the CO <sub>2</sub> methanation mechanism using Ni/CeO <sub>2</sub> and Ni/Al <sub>2</sub> O <sub>3</sub> catalysts. Applied Catalysis B: Environmental, 2020, 265, 118538.  | 10.8 | 199       |
| 2  | Ni catalysts with La as promoter supported over Y- and BETA- zeolites for CO <sub>2</sub> methanation. Applied Catalysis B: Environmental, 2018, 238, 393-403.  | 10.8 | 175       |
| 3  | Lithium Bis(fluorosulfonyl)imide/Poly(ethylene oxide) Polymer Electrolyte for All Solid-State Li-ion S Cell. Journal of Physical Chemistry Letters, 2017, 8, 1956-1960.   | 2.1  | 166       |
| 4  | Review of Solid Electrolytes for Safe and High Energy Density Lithium-Sulfur Batteries: Promises and Challenges. Journal of the Electrochemical Society, 2018, 165, A6008-A6016.  | 1.3  | 146       |
| 5  | Enhancement of the catalytic oxidation of hydrogen-lean chlorinated VOCs in the presence of hydrogen-supplying compounds. Applied Catalysis B: Environmental, 2000, 24, 33-43.  | 10.8 | 132       |
| 6  | Effect of metal loading on the CO <sub>2</sub> methanation: A comparison between alumina supported Ni and Ru catalysts. Catalysis Today, 2020, 356, 419-432.  | 2.2  | 111       |
| 7  | Ni loading effects on dual function materials for capture and in-situ conversion of CO <sub>2</sub> to CH <sub>4</sub> using CaO or Na <sub>2</sub> CO <sub>3</sub> . Journal of CO <sub>2</sub> Utilization, 2019, 34, 576-587.  | 3.3  | 109       |
| 8  | Polymer-Rich Composite Electrolytes for All-Solid-State Li-ion S Cells. Journal of Physical Chemistry Letters, 2017, 8, 3473-3477.  | 2.1  | 106       |
| 9  | Catalytic oxidation of trichloroethylene over Fe-ZSM-5: Influence of the preparation method on the iron species and the catalytic behavior. Applied Catalysis B: Environmental, 2016, 180, 210-218.   | 10.8 | 101       |
| 10 | Mechanism of the CO <sub>2</sub> storage and in situ hydrogenation to CH <sub>4</sub> . Temperature and adsorbent loading effects over Ru-CaO/Al <sub>2</sub> O <sub>3</sub> and Ru-Na <sub>2</sub> CO <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> catalysts. Applied Catalysis B: Environmental, 2019, 256, 117845. | 10.8 | 100       |
| 11 | Stability of protonic zeolites in the catalytic oxidation of chlorinated VOCs (1,2-dichloroethane). Applied Catalysis B: Environmental, 2009, 88, 533-541.  | 10.8 | 95        |
| 12 | Kinetics of the Low-Temperature WGS Reaction over a CuO/ZnO/Al <sub>2</sub> O <sub>3</sub> Catalyst. Industrial & Engineering Chemistry Research, 2005, 44, 41-50.  | 1.8  | 90        |
| 13 | State of the art in catalytic oxidation of chlorinated volatile organic compounds. Chemical Papers, 2014, 68, .   | 1.0  | 85        |
| 14 | Deactivation of H-zeolites during catalytic oxidation of trichloroethylene. Journal of Catalysis, 2012, 296, 165-174.   | 3.1  | 70        |
| 15 | Pervaporation of ethanol-water mixtures through poly(1-trimethylsilyl-1-propyne) (PTMSP) membranes. Desalination, 2002, 149, 61-65.   | 4.0  | 59        |
| 16 | Influence of water and hydrocarbon processed in feedstream on the three-way behaviour of platinum-alumina catalysts. Applied Catalysis B: Environmental, 1997, 12, 61-79.   | 10.8 | 58        |
| 17 | Optimization of process parameters on the extrusion of honeycomb shaped monolith of H-ZSM-5 zeolite. Chemical Engineering Journal, 2010, 162, 415-423.  | 6.6  | 57        |
| 18 | The reaction pathway and kinetic mechanism of the catalytic oxidation of gaseous lean TCE on Pd/alumina catalysts. Journal of Catalysis, 2003, 214, 130-135.  | 3.1  | 47        |

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|----|--|------|-----------|
| 19 | Tailoring dual redox-acid functionalities in VOx/TiO2/ZSM5 catalyst for simultaneous abatement of PCDD/Fs and NOx from municipal solid waste incineration. Applied Catalysis B: Environmental, 2017, 205, 310-318. | 10.8 | 47        |
| 20 | Kinetic considerations of three-way catalysis in automobile exhaust converters. Applied Catalysis B: Environmental, 2001, 32, 243-256.   | 10.8 | 45        |
| 21 | Ni/LnOx Catalysts (Ln=La, Ce or Pr) for CO <sub>2</sub> Methanation. ChemCatChem, 2019, 11, 810-819.   | 1.8  | 44        |
| 22 | Metal-loaded ZSM5 zeolites for catalytic purification of dioxin/furans and NO containing exhaust gases from MWI plants: Effect of different metal cations. Applied Catalysis B: Environmental, 2016, 184, 238-245. | 10.8 | 43        |
| 23 | Kinetics of Pd/alumina catalysed 1,2-dichloroethane gas-phase oxidation. Chemical Engineering Science, 2006, 61, 3564-3576.  | 1.9  | 41        |
| 24 | Role of surface vanadium oxide coverage support on titania for the simultaneous removal of o-dichlorobenzene and NOx from waste incinerator flue gas. Catalysis Today, 2015, 254, 2-11.                            | 2.2  | 39        |
| 25 | Catalytic activity of regenerated catalyst after the oxidation of 1,2-dichloroethane and trichloroethylene. Chemical Engineering Journal, 2014, 241, 200-206.  | 6.6  | 36        |
| 26 | Effect of vanadia loading on acidic and redox properties of VOx/TiO2 for the simultaneous abatement of PCDD/Fs and NOx. Journal of Industrial and Engineering Chemistry, 2020, 81, 440-450.                        | 2.9  | 36        |
| 27 | Effect of operation conditions in the pervaporation of ethanol-water mixtures with poly(1-trimethylsilyl-1-propyne) membranes. Journal of Applied Polymer Science, 2004, 94, 1395-1403.                            | 1.3  | 33        |
| 28 | Steady-state NH <sub>3</sub> -SCR global model and kinetic parameter estimation for NO <sub>x</sub> removal in diesel engine exhaust aftertreatment with Cu/chabazite. Catalysis Today, 2017, 296, 95-104.         | 2.2  | 32        |
| 29 | Strategies to enhance the stability of h-bea zeolite in the catalytic oxidation of Cl-VOCs: 1,2-Dichloroethane. Catalysis Today, 2013, 213, 192-197.   | 2.2  | 31        |
| 30 | Catalytic oxidation of trichloroethylene over Fe-zeolites. Catalysis Today, 2011, 176, 357-360.  | 2.2  | 30        |
| 31 | Design of active sites in Ni/CeO2 catalysts for the methanation of CO2: tailoring the Ni-CeO2 contact. Applied Materials Today, 2020, 19, 100591.  | 2.3  | 30        |
| 32 | Study on the promotional effect of lanthana addition on the performance of hydroxyapatite-supported Ni catalysts for the CO2 methanation reaction. Applied Catalysis B: Environmental, 2022, 314, 121500.          | 10.8 | 29        |
| 33 | Understanding the Role of Nano-Aluminum Oxide in All-Solid-State Lithium-Sulfur Batteries. ChemElectroChem, 2019, 6, 326-330.  | 1.7  | 28        |
| 34 | Tuning basicity of dual function materials widens operation temperature window for efficient CO2 adsorption and hydrogenation to CH4. Journal of CO2 Utilization, 2022, 58, 101922.                                | 3.3  | 26        |
| 35 | Performance of NO storage-reduction catalyst in the temperature-reductant concentration domain by response surface methodology. Chemical Engineering Journal, 2011, 169, 58-67.                                    | 6.6  | 25        |
| 36 | On the effect of reduction and ageing on the TWC activity of Pd/Ce0.68Zr0.32O2 under simulated automotive exhausts. Catalysis Today, 2012, 180, 88-95.   | 2.2  | 25        |

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|----|--|------|-----------|
| 37 | Enhancing the CO <sub>2</sub> methanation activity of $\gamma$ -Al <sub>2</sub> O <sub>3</sub> supported mono- and bi-metallic catalysts prepared by glycerol assisted impregnation. Applied Catalysis B: Environmental, 2021, 296, 120322.  | 10.8 | 25        |
| 38 | Alternate cycles of CO <sub>2</sub> storage and <i>in situ</i> hydrogenation to CH <sub>4</sub> on Ni <sub>2</sub> CO <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> : influence of promoter addition and calcination temperature. Sustainable Energy and Fuels, 2021, 5, 1194-1210. | 2.5  | 24        |
| 39 | Preparation, activity and durability of promoted platinum catalysts for automotive exhaust control. Applied Catalysis B: Environmental, 1994, 3, 191-204.  | 10.8 | 23        |
| 40 | Pervaporation of 50 wt % ethanol-water mixtures with poly(1-trimethylsilyl-1-propyne) membranes at high temperatures. Journal of Applied Polymer Science, 2007, 103, 2843-2848.  | 1.3  | 23        |
| 41 | Influence of the washcoat characteristics on NH <sub>3</sub> -SCR behavior of Cu-zeolite monoliths. Catalysis Today, 2013, 216, 82-89.   | 2.2  | 22        |
| 42 | Modeling the CO <sub>2</sub> capture and <i>in situ</i> conversion to CH <sub>4</sub> on dual function Ru-Na <sub>2</sub> CO <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> catalyst. Journal of CO <sub>2</sub> Utilization, 2020, 42, 101351.                                      | 3.3  | 22        |
| 43 | Optimal inlet temperature trajectories for adiabatic packed reactors with catalyst decay. Chemical Engineering Science, 1992, 47, 1495-1501.   | 1.9  | 18        |
| 44 | Kinetics of the selective hydrogenation of phenol to cyclohexanone over a Pd-alumina catalyst. Reaction Kinetics and Catalysis Letters, 1986, 32, 505-512.   | 0.6  | 17        |
| 45 | Screening of Fe-Cu-Zeolites Prepared by Different Methodology for Application in NSR-SCR Combined DeNO <sub>x</sub> Systems. Topics in Catalysis, 2013, 56, 215-221.   | 1.3  | 17        |
| 46 | Intrinsic kinetics of CO <sub>2</sub> methanation on low-loaded Ni/Al <sub>2</sub> O <sub>3</sub> catalyst: Mechanism, model discrimination and parameter estimation. Journal of CO <sub>2</sub> Utilization, 2022, 57, 101888.  | 3.3  | 17        |
| 47 | Kinetics of the Catalytic Oxidation of Lean Trichloroethylene in Air over Pd/Alumina. Industrial & Engineering Chemistry Research, 2003, 42, 6007-6011.  | 1.8  | 16        |
| 48 | Design of CeO <sub>2</sub> -supported LaNiO <sub>3</sub> perovskites as precursors of highly active catalysts for CO <sub>2</sub> methanation. Catalysis Science and Technology, 2021, 11, 6065-6079.  | 2.1  | 16        |
| 49 | Improvements in batch distillation startup. Industrial & Engineering Chemistry Research, 1987, 26, 745-750.  | 1.8  | 14        |
| 50 | Pervaporation performance of PTMSP membranes at high temperatures. Journal of Applied Polymer Science, 2003, 90, 2255-2259.  | 1.3  | 14        |
| 51 | Applicability of LaNiO <sub>3</sub> -derived catalysts as dual function materials for CO <sub>2</sub> capture and <i>in situ</i> conversion to methane. Fuel, 2022, 320, 123842.   | 3.4  | 14        |
| 52 | Kinetics, Model Discrimination, and Parameters Estimation of CO <sub>2</sub> Methanation on Highly Active Ni/CeO <sub>2</sub> Catalyst. Industrial & Engineering Chemistry Research, 2022, 61, 10419-10435.  | 1.8  | 14        |
| 53 | The effect of deactivation of Zeolites on product selectivity in the oxidation of chlorinated VOCs (trichloroethylene). Journal of Chemical Technology and Biotechnology, 2016, 91, 318-326.   | 1.6  | 13        |
| 54 | Deep catalytic oxidation of chlorinated VOC mixtures from groundwater stripping emissions. Studies in Surface Science and Catalysis, 2000, 130, 1229-1234.   | 1.5  | 12        |

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|----|--|-----|-----------|
| 55 | Simulation-based optimization of cycle timing for CO <sub>2</sub> capture and hydrogenation with dual function catalyt. <i>Catalysis Today</i> , 2022, 394-396, 314-324.   | 2.2 | 11        |
| 56 | Adsorption studies of different reagents on supported palladium catalysts. <i>Applied Catalysis</i> , 1990, 60, 1-12.  | 1.1 | 8         |
| 57 | Optimal Operating Conditions of Coupled Sequential NO <sub>x</sub> Storage/Reduction and Cu/CHA Selective Catalytic Reduction Monoliths. <i>Topics in Catalysis</i> , 2017, 60, 30-39.   | 1.3 | 8         |
| 58 | Optimal temperature policies by distributed control for reactors with lhw catalyst deactivation. <i>Canadian Journal of Chemical Engineering</i> , 1987, 65, 36-41.  | 0.9 | 7         |
| 59 | Study of the Pretreatment Chemistry and Thermal Stability of Zirconia Supported Ru-Pt Catalysts. <i>Journal of Catalysis</i> , 1999, 187, 24-29.   | 3.1 | 6         |
| 60 | Aging studies on dual function materials Ru/Ni-Na/Ca-Al <sub>2</sub> O <sub>3</sub> for CO <sub>2</sub> adsorption and hydrogenation to CH <sub>4</sub> . <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 107951. | 3.3 | 6         |
| 61 | Analysis of the lumped and distributed optimal temperature trajectories for packed bed reactors with concentration dependent catalyst deactivation. <i>Canadian Journal of Chemical Engineering</i> , 1990, 68, 860-866.           | 0.9 | 5         |
| 62 | Behavior of highly dispersed platinum catalysts in liquid-phase hydrogenations. <i>Industrial &amp; Engineering Chemistry Research</i> , 1993, 32, 1035-1040.  | 1.8 | 5         |
| 63 | Prediction of lifetime of poly(2-hexyne) films through the kinetics of thermooxidative degradation from thermogravimetric and molecular weight data. <i>Chemical Engineering Science</i> , 1996, 51, 1113-1120.                    | 1.9 | 5         |
| 64 | Kinetics of weight loss and chain scission in the thermooxidative degradation of poly[1-(trimethylsilyl)-1-propyne] films. <i>Journal of Polymer Science Part A</i> , 1999, 37, 4309-4317.   | 2.5 | 5         |
| 65 | Performance of Cu-ZSM-5 in a Coupled Monolith NSR-SCR System for NO <sub>x</sub> Removal in Lean-Burn Engine Exhaust. <i>Topics in Catalysis</i> , 2016, 59, 259-267.  | 1.3 | 5         |
| 66 | Modeling the degradation kinetics of poly(2-hexyne) membranes via gel permeation chromatography. <i>Journal of Membrane Science</i> , 1997, 129, 83-91.  | 4.1 | 4         |
| 67 | Relation Between the Preparation and the Morphology of Silica-Alumina Gels. <i>Adsorption Science and Technology</i> , 1987, 4, 149-161.   | 1.5 | 3         |
| 68 | Optimization of inlet temperature for deactivating LTWGS reactor performance. <i>AIChE Journal</i> , 2005, 51, 2016-2023.  | 1.8 | 3         |
| 69 | Surface Acidity of Silica-Alumina Catalysts in Relation to the Preparation Variables. <i>Adsorption Science and Technology</i> , 1986, 3, 95-108.  | 1.5 | 2         |
| 70 | Kinetics of isomerization of maleic acid using ammonium bromide and ammonium peroxydisulfate as catalyst. <i>Industrial &amp; Engineering Chemistry Research</i> , 1991, 30, 2138-2143.  | 1.8 | 2         |
| 71 | Surface features and catalytic performance of platinum/alumina catalysts in slurry-phase hydrogenation. <i>Industrial &amp; Engineering Chemistry Research</i> , 1993, 32, 2457-2463.  | 1.8 | 2         |
| 72 | Analysis of combined temperature and space time trajectories to maintain constant the exit conversion of fixed bed reactors with catalyst decay. <i>The Chemical Engineering Journal</i> , 1991, 47, 105-112.                      | 0.4 | 1         |

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|----|--|-----|-----------|
| 73 | Techno-economic optimization of isomerization of maleic acid to fumaric acid using ammonium bromide as a soluble catalyst. <i>Chemical Engineering and Processing: Process Intensification</i> , 1991, 30, 15-21.                      | 1.8 | 1         |
| 74 | Sequential design of experiments for optimal model discrimination and parameter estimation in isopropanol dehydration. <i>Chemical Engineering Science</i> , 1991, 46, 2161-2166.  | 1.9 | 1         |
| 75 | Effect of molecular weight and presence of antioxidant in thermooxidative degradation of poly(2-hexyne) films. <i>Chemical Engineering Science</i> , 1996, 51, 2811-2816.  | 1.9 | 1         |
| 76 | Promotion of Ru/ZrO <sub>2</sub> catalysts by platinum. <i>Studies in Surface Science and Catalysis</i> , 2000, 143, 555-563.  | 1.5 | 1         |
| 77 | Promoter Effects on Platinum Catalysts for Automotive Exhaust Control. <i>Studies in Surface Science and Catalysis</i> , 1993, 75, 2689-2692.  | 1.5 | 0         |
| 78 | Yield and Purity Comparison of Dimethoate Manufacturing Processes: A Homogeneous Reaction, Two-Phase Uncatalyzed Reaction, and Phase Transfer Catalysis. <i>Industrial &amp; Engineering Chemistry Research</i> , 1996, 35, 4389-4393. | 1.8 | 0         |
| 79 | Intercooled Double-Bed Reactor for LTWGS Reaction with Catalyst Poisoning by Chlorine: Inlet Temperatures for the Maximization of the Production. <i>International Journal of Chemical Reactor Engineering</i> , 2006, 4, .            | 0.6 | 0         |
| 80 | Catalytic Oxidation of Volatile Organic Compounds: Chlorinated Hydrocarbons. , 2014, , 91-131.   |     | 0         |