Mario J MuÃ±oz-Batista

List of Publications by Year
in descending order

80 papers	3,387 citations	126708 33 h-index	155451 55 g-index
82 all docs	82 docs citations	82 times ranked	4338 citing authors

#	Article	IF	Citations
1	Graphitic carbon nitride-based photocatalysts: Toward efficient organic transformation for value-added chemicals production. Molecular Catalysis, 2020, 488, 110902.	1.0	245
2	Role of Interface Contact in CeO₂â€“TiO₂ Photocatalytic Composite Materials. ACS Catalysis, 2014, 4, 63-72.	5.5	178
3	Interface Effects in Sunlight-Driven Ag/g-C₃N₄ Composite Catalysts: Study of the Toluene Photodegradation Quantum Efficiency. ACS Applied Materials & Interfaces, 2016, 8, 2617-2627.	4.0	140
4	Mechanochemistry: Toward Sustainable Design of Advanced Nanomaterials for Electrochemical Energy Storage and Catalytic Applications. ACS Sustainable Chemistry and Engineering, 2018, 6, 9530-9544.	3.2	130
5	Disinfection capability of Ag/g-C 3 N 4 composite photocatalysts under UV and visible light illumination. Applied Catalysis B: Environmental, 2016, 183, 86-95.	10.8	127
6	Thermoâ€Photocatalysis: Environmental and Energy Applications. ChemSusChem, 2019, 12, 2098-2116.	3.6	115
7	Environmental Catalysis: Present and Future. ChemCatChem, 2019, 11, 18-38.	1.8	87
8	Enhancing photocatalytic performance of TiO2 in H2 evolution via Ru co-catalyst deposition. Applied Catalysis B: Environmental, 2018, 238, 434-443.	10.8	85
9	Non-porous carbonaceous materials derived from coffee waste grounds as highly sustainable anodes for lithium-ion batteries. Journal of Cleaner Production, 2019, 207, 411-417.	4.6	85
10	Effect of g-C3N4 loading on TiO2-based photocatalysts: UV and visible degradation of toluene. Catalysis Science and Technology, 2014, 4, 2006.	2.1	83
11	Cuâ€“TiO2 systems for the photocatalytic H2 production: Influence of structural and surface support features. Applied Catalysis B: Environmental, 2015, 179, 468-478.	10.8	79
12	Braiding kinetics and spectroscopy in photo-catalysis: the spectro-kinetic approach. Chemical Society Reviews, 2019, 48, 637-682.	18.7	79
13	UV and visible light optimization of anatase TiO2 antimicrobial properties: Surface deposition of metal and oxide (Cu, Zn, Ag) species. Applied Catalysis B: Environmental, 2013, 140-141, 680-690.	10.8	73
14	Bimetallic Pt-Pd co-catalyst Nb-doped TiO2 materials for H2 photo-production under UV and Visible light illumination. Applied Catalysis B: Environmental, 2018, 238, 533-545.	10.8	70
15	Measuring and interpreting quantum efficiency for hydrogen photo-production using Pt-titania catalysts. Journal of Catalysis, 2017, 347, 157-169.	3.1	68
16	Composite Bi2O3â€“TiO2 catalysts for toluene photo-degradation: Ultraviolet and visible light performances. Applied Catalysis B: Environmental, 2014, 156-157, 307-313.	10.8	63
17	Promotion of CeO2â€“TiO2 photoactivity by g-C3N4: Ultraviolet and visible light elimination of toluene. Applied Catalysis B: Environmental, 2015, 164, 261-270.	10.8	63
18	Evolution of H2 photoproduction with Cu content on CuO -TiO2 composite catalysts prepared by a microemulsion method. Applied Catalysis B: Environmental, 2015, 163, 214-222.	10.8	61

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19	Heterogeneous photocatalysis: Light-matter interaction and chemical effects in quantum efficiency calculations. Journal of Catalysis, 2015, 330, 154-166.	3.1	59
20	Phaseâ€Contact Engineering in Monoâ€•and Bimetallic Cuâ€Ni Coâ€catalysts for Hydrogen Photocatalytic Materials. Angewandte Chemie - International Edition, 2018, 57, 1199-1203.	7.2	59
21	Sunlight-driven toluene photo-elimination using CeO2-TiO2 composite systems: A kinetic study. Applied Catalysis B: Environmental, 2013, 140-141, 626-635.	10.8	58
22	Composite H3PW12O40â€“TiO2 catalysts for toluene selective photo-oxidation. Applied Catalysis B: Environmental, 2018, 225, 100-109.	10.8	58
23	Acetaldehyde degradation under UV and visible irradiation using CeO2â€“TiO2 composite systems: Evaluation of the photocatalytic efficiencies. Chemical Engineering Journal, 2014, 255, 297-306.	6.6	56
24	Nature-inspired hierarchical materials for sensing and energy storage applications. Chemical Society Reviews, 2021, 50, 4856-4871.	18.7	49
25	Microwave-assisted preparation of Ag/Ag₂S carbon hybrid structures from pig bristles as efficient HER catalysts. Journal of Materials Chemistry A, 2018, 6, 21516-21523.	5.2	48
26	Efficient Electrochemical Production of Syngas from CO₂ and H₂O by using a Nanostructured Ag/gâ€C₃N₄ Catalyst. ChemElectroChem, 2016, 3, 1497-1502.	1.7	46
27	g-C3N4/TiO2 composite catalysts for the photo-oxidation of toluene: Chemical and charge handling effects. Chemical Engineering Journal, 2019, 378, 122228.	6.6	46
28	Effect of exfoliation and surface deposition of MnOx species in g-C3N4: Toluene photo-degradation under UV and visible light. Applied Catalysis B: Environmental, 2017, 203, 663-672.	10.8	43
29	Facile mechanochemical modification of g-C3N4 for selective photo-oxidation of benzyl alcohol. Chemical Engineering Science, 2019, 194, 78-84.	1.9	43
30	UV and visible hydrogen photo-production using Pt promoted Nb-doped TiO 2 photo-catalysts: Interpreting quantum efficiency. Applied Catalysis B: Environmental, 2017, 216, 133-145.	10.8	41
31	Benign-by-Design Orange Peel-Templated Nanocatalysts for Continuous Flow Conversion of Levulinic Acid to N-Heterocycles. ACS Sustainable Chemistry and Engineering, 2018, 6, 16637-16644.	3.2	38
32	Effective Enhancement of TiO₂ Photocatalysis by Synergistic Interaction of Surface Species: From Promoters to Co-catalysts. ACS Catalysis, 2014, 4, 4277-4288.	5.5	37
33	Gas phase 2-propanol degradation using titania photocatalysts: Study of the quantum efficiency. Applied Catalysis B: Environmental, 2017, 201, 400-410.	10.8	35
34	Thermo-photo degradation of 2-propanol using a composite ceria-titania catalyst: Physico-chemical interpretation from a kinetic model. Applied Catalysis B: Environmental, 2018, 225, 298-306.	10.8	34
35	Enhancing promoting effects in g-C3N4-Mn+/CeO2-TiO2 ternary composites: Photo-handling of charge carriers. Applied Catalysis B: Environmental, 2015, 176-177, 687-698.	10.8	33
36	Green photo-oxidation of styrene over Wâ€“Ti composite catalysts. Journal of Catalysis, 2014, 309, 428-438.	3.1	32

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37	Abatement of organics and Escherichia coli using CeO2-TiO2 composite oxides: Ultraviolet and visible light performances. Applied Catalysis B: Environmental, 2014, 154-155, 350-359.	10.8	29
38	Enhanced photocatalytic activity of MWCNT/TiO2 heterojunction photocatalysts obtained by microwave assisted synthesis. Catalysis Today, 2016, 266, 102-109.	2.2	29
39	Efficient Ru-based scrap waste automotive converter catalysts for the continuous-flow selective hydrogenation of cinnamaldehyde. Green Chemistry, 2019, 21, 4712-4722.	4.6	29
40	UV and visible light driven H2 photo-production using Nb-doped TiO2: Comparing Pt and Pd co-catalysts. Molecular Catalysis, 2017, 437, 1-10.	1.0	28
41	H2 photo-production from methanol, ethanol and 2-propanol: Pt-(Nb)TiO2 performance under UV and visible light. Molecular Catalysis, 2018, 446, 88-97.	1.0	28
42	Operando Spectroscopy in Photocatalysis. ChemPhotoChem, 2018, 2, 777-785.	1.5	28
43	Controllable Design of Polypyrrole-Iron Oxide Nanocoral Architectures for Supercapacitors with Ultrahigh Cycling Stability. ACS Applied Energy Materials, 2019, 2, 2161-2168.	2.5	25
44	Facile synthesis of B/g-C₃N₄ composite materials for the continuous-flow selective photo-production of acetone. Green Chemistry, 2020, 22, 4975-4984.	4.6	25
45	Versatile Protein-Templated TiO₂ Nanocomposite for Energy Storage and Catalytic Applications. ACS Sustainable Chemistry and Engineering, 2019, 7, 5329-5337.	3.2	24
46	Effect of the anataseâ€“rutile contact in gas phase toluene photodegradation quantum efficiency. Chemical Engineering Journal, 2016, 299, 393-402.	6.6	23
47	Highly Active Catalytic Ruthenium/TiO2Nanomaterials for Continuous Production of Î³â€Valerolactone. ChemSusChem, 2018, 11, 2604-2611.	3.6	23
48	Ceria promotion of acetaldehyde photo-oxidation in a TiO₂-based catalyst: a spectroscopic and kinetic study. Catalysis Science and Technology, 2015, 5, 1521-1531.	2.1	22
49	Surface CuO, Bi₂O₃, and CeO₂ Species Supported in TiO₂-Anatase: Study of Interface Effects in Toluene Photodegradation Quantum Efficiency. ACS Applied Materials & Interfaces, 2016, 8, 13934-13945.	4.0	22
50	Er-W codoping of TiO2-anatase: Structural and electronic characterization and disinfection capability under UVâ€“vis, and near-IR excitation. Applied Catalysis B: Environmental, 2018, 228, 113-129.	10.8	22
51	Continuous flow synthesis of amines from the cascade reactions of nitriles and carbonyl-containing compounds promoted by Pt-modified titania catalysts. Green Chemistry, 2019, 21, 300-306.	4.6	21
52	Continuous Flow Synthesis of High Valuable N-Heterocycles via Catalytic Conversion of Levulinic Acid. Frontiers in Chemistry, 2019, 7, 103.	1.8	21
53	Toluene and styrene photo-oxidation quantum efficiency: Comparison between doped and composite tungsten-containing anatase-based catalysts. Applied Catalysis B: Environmental, 2019, 245, 49-61.	10.8	21
54	Unprecedented Wiring Efficiency of Sulfonated Graphitic Carbon Nitride Materials: Toward High-Performance Amperometric Recombinant CotA Laccase Biosensors. ACS Sustainable Chemistry and Engineering, 2019, 7, 1474-1484.	3.2	21

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55	SunlightâEDriven Hydrogen Production Using an Annular Flow Photoreactor and gâEC₃N₄âEBased Catalysts. ChemPhotoChem, 2018, 2, 870-877.	1.5	20
56	Microwave-assisted valorization of pig bristles: towards visible light photocatalytic chalcocite composites. Green Chemistry, 2018, 20, 3001-3007.	4.6	20
57	Improving Electrochemical Hydrogen Evolution of Ag@CN Nanocomposites by Synergistic Effects with Î±-Rich Proteins. ACS Applied Materials & Interfaces, 2020, 12, 2207-2215.	4.0	20
58	Sn modification of TiO2 anatase and rutile type phases: 2-Propanol photo-oxidation under UV and visible light. Applied Catalysis B: Environmental, 2018, 228, 130-141.	10.8	19
59	A Sustainable Approach for the Synthesis of Catalytically Active Peroxidase-Mimic ZnS Catalysts. ACS Sustainable Chemistry and Engineering, 2019, 7, 1300-1307.	3.2	19
60	Encapsulated Laccases as Effective Electrocatalysts for Oxygen Reduction Reactions. ACS Sustainable Chemistry and Engineering, 2018, 6, 11058-11062.	3.2	18
61	Waste-derived Materials: Opportunities in Photocatalysis. Topics in Current Chemistry, 2020, 378, 3.	3.0	18
62	Photocatalytic Production of Vanillin over CeO_x and ZrO₂ Modified Biomass-Templated Titania. Industrial & Engineering Chemistry Research, 2020, 59, 17085-17093.	1.8	18
63	Novel (NH4)4[NiMo6O24H6]Â·5H2O â€“ TiO2 composite system: Photo-oxidation of toluene under UV and sunlight-type illumination. Applied Catalysis B: Environmental, 2018, 238, 381-392.	10.8	16
64	Microemulsion: A versatile synthesis tool for photocatalysis. Current Opinion in Colloid and Interface Science, 2020, 49, 42-59.	3.4	14
65	Thermal and light irradiation effects on the electrocatalytic performance of hemoglobin modified Co₃O₄-g-C₃N₄ nanomaterials for the oxygen evolution reaction. Nanoscale, 2020, 12, 8477-8484.	2.8	14
66	Spent Coffee Grounds-Templated Magnetic Nanocatalysts for Mild Oxidations. ACS Sustainable Chemistry and Engineering, 2019, 7, 17030-17038.	3.2	13
67	Thermo-photo production of hydrogen using ternary Pt-CeO2-TiO2 catalysts: A spectroscopic and mechanistic study. Chemical Engineering Journal, 2021, 425, 130641.	6.6	13
68	Characterization of Photo-catalysts: From Traditional to Advanced Approaches. Topics in Current Chemistry, 2019, 377, 24.	3.0	12
69	Measuring and interpreting quantum efficiency of acid blue 9 photodegradation using TiO2-based catalysts. Applied Catalysis A: General, 2018, 550, 38-47.	2.2	11
70	Mimicking the bioelectrocatalytic function of recombinant CotA laccase through electrostatically self-assembled bioconjugates. Nanoscale, 2019, 11, 1549-1554.	2.8	9
71	Heterogeneous Photocatalysis. ChemEngineering, 2021, 5, 26.	1.0	9
72	Mechanochemically Synthesized Supported Magnetic Fe-Nanoparticles as Catalysts for Efficient Vanillin Production. Catalysts, 2019, 9, 290.	1.6	8

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73	Phaseâ€Contact Engineering in Monoâ€•and Bimetallic Cuâ€Ni Coâ€•catalysts for Hydrogen Photocatalytic Materials. Angewandte Chemie, 2018, 130, 1213-1217.	1.6	6
74	Enhanced boron modified graphitic carbon nitride for the selective photocatalytic production of benzaldehyde. Separation and Purification Technology, 2022, 298, 121613.	3.9	6
75	Photodegradation of 2-propanol in gas phase over zirconium doped TiO2: Effect of Zr content. Journal of Photochemistry and Photobiology A: Chemistry, 2022, 427, 113774.	2.0	5
76	Recent progress in the quantitative assessment and interpretation of photoactivity. Catalysis Reviews - Science and Engineering, 0, , 1-55.	5.7	5
77	Sunlight active g-C3N4-based Mn+ (M Cu, Ni, Zn, Mn) â€“ promoted catalysts: Sharing of nitrogen atoms as a door for optimizing photo-activity. Molecular Catalysis, 2020, 484, 110725.	1.0	2
78	Metabolomics reveals synergy between Ag and g-C3N4 in Ag/g-C3N4 composite photocatalysts: a unique feature among Ag-doped biocidal materials. Metabolomics, 2021, 17, 53.	1.4	2
79	Pd-Pt bimetallic Nb-doped TiO2 for H2 photo-production: Gas and liquid phase processes. Molecular Catalysis, 2020, 481, 110240.	1.0	1
80	Waste-derived Materials: Opportunities in Photocatalysis. Topics in Current Chemistry Collections, 2020, , 1-28.	0.2	1