

Mario J Muñoz-Batista

List of Publications by Year in descending order

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80
papers

3,387
citations

126907

33
h-index

155660

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. <i>Molecular Catalysis</i> , 2020, 488, 110902.	2.0	245
2	Role of Interface Contact in CeO ₂ –TiO ₂ Photocatalytic Composite Materials. <i>ACS Catalysis</i> , 2014, 4, 63-72.	11.2	178
3	Interface Effects in Sunlight-Driven Ag/g-C ₃ N ₄ Composite Catalysts: Study of the Toluene Photodegradation Quantum Efficiency. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 2617-2627.	8.0	140
4	Mechanochemistry: Toward Sustainable Design of Advanced Nanomaterials for Electrochemical Energy Storage and Catalytic Applications. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 9530-9544.	6.7	130
5	Disinfection capability of Ag/g-C ₃ N ₄ composite photocatalysts under UV and visible light illumination. <i>Applied Catalysis B: Environmental</i> , 2016, 183, 86-95.	20.2	127
6	Thermo-Photocatalysis: Environmental and Energy Applications. <i>ChemSusChem</i> , 2019, 12, 2098-2116.	6.8	115
7	Environmental Catalysis: Present and Future. <i>ChemCatChem</i> , 2019, 11, 18-38.	3.7	87
8	Enhancing photocatalytic performance of TiO ₂ in H ₂ evolution via Ru co-catalyst deposition. <i>Applied Catalysis B: Environmental</i> , 2018, 238, 434-443.	20.2	85
9	Non-porous carbonaceous materials derived from coffee waste grounds as highly sustainable anodes for lithium-ion batteries. <i>Journal of Cleaner Production</i> , 2019, 207, 411-417.	9.3	85
10	Effect of g-C ₃ N ₄ loading on TiO ₂ -based photocatalysts: UV and visible degradation of toluene. <i>Catalysis Science and Technology</i> , 2014, 4, 2006.	4.1	83
11	Cu–TiO ₂ systems for the photocatalytic H ₂ production: Influence of structural and surface support features. <i>Applied Catalysis B: Environmental</i> , 2015, 179, 468-478.	20.2	79
12	Braiding kinetics and spectroscopy in photo-catalysis: the spectro-kinetic approach. <i>Chemical Society Reviews</i> , 2019, 48, 637-682.	38.1	79
13	UV and visible light optimization of anatase TiO ₂ antimicrobial properties: Surface deposition of metal and oxide (Cu, Zn, Ag) species. <i>Applied Catalysis B: Environmental</i> , 2013, 140-141, 680-690.	20.2	73
14	Bimetallic Pt-Pd co-catalyst Nb-doped TiO ₂ materials for H ₂ photo-production under UV and Visible light illumination. <i>Applied Catalysis B: Environmental</i> , 2018, 238, 533-545.	20.2	70
15	Measuring and interpreting quantum efficiency for hydrogen photo-production using Pt-titania catalysts. <i>Journal of Catalysis</i> , 2017, 347, 157-169.	6.2	68
16	Composite Bi ₂ O ₃ –TiO ₂ catalysts for toluene photo-degradation: Ultraviolet and visible light performances. <i>Applied Catalysis B: Environmental</i> , 2014, 156-157, 307-313.	20.2	63
17	Promotion of CeO ₂ –TiO ₂ photoactivity by g-C ₃ N ₄ : Ultraviolet and visible light elimination of toluene. <i>Applied Catalysis B: Environmental</i> , 2015, 164, 261-270.	20.2	63
18	Evolution of H ₂ photoproduction with Cu content on CuO–TiO ₂ composite catalysts prepared by a microemulsion method. <i>Applied Catalysis B: Environmental</i> , 2015, 163, 214-222.	20.2	61

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19	Heterogeneous photocatalysis: Light-matter interaction and chemical effects in quantum efficiency calculations. <i>Journal of Catalysis</i> , 2015, 330, 154-166.	6.2	59
20	Phase-Contact Engineering in Mono- and Bimetallic Cu-Ni Co-catalysts for Hydrogen Photocatalytic Materials. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 1199-1203.	13.8	59
21	Sunlight-driven toluene photo-elimination using CeO ₂ -TiO ₂ composite systems: A kinetic study. <i>Applied Catalysis B: Environmental</i> , 2013, 140-141, 626-635.	20.2	58
22	Composite H ₃ PW ₁₂ O ₄₀ -TiO ₂ catalysts for toluene selective photo-oxidation. <i>Applied Catalysis B: Environmental</i> , 2018, 225, 100-109.	20.2	58
23	Acetaldehyde degradation under UV and visible irradiation using CeO ₂ -TiO ₂ composite systems: Evaluation of the photocatalytic efficiencies. <i>Chemical Engineering Journal</i> , 2014, 255, 297-306.	12.7	56
24	Nature-inspired hierarchical materials for sensing and energy storage applications. <i>Chemical Society Reviews</i> , 2021, 50, 4856-4871.	38.1	49
25	Microwave-assisted preparation of Ag/Ag ₂ S carbon hybrid structures from pig bristles as efficient HER catalysts. <i>Journal of Materials Chemistry A</i> , 2018, 6, 21516-21523.	10.3	48
26	Efficient Electrochemical Production of Syngas from CO ₂ and H ₂ O by using a Nanostructured Ag/g-C ₃ N ₄ Catalyst. <i>ChemElectroChem</i> , 2016, 3, 1497-1502.	3.4	46
27	g-C ₃ N ₄ /TiO ₂ composite catalysts for the photo-oxidation of toluene: Chemical and charge handling effects. <i>Chemical Engineering Journal</i> , 2019, 378, 122228.	12.7	46
28	Effect of exfoliation and surface deposition of MnO _x species in g-C ₃ N ₄ : Toluene photo-degradation under UV and visible light. <i>Applied Catalysis B: Environmental</i> , 2017, 203, 663-672.	20.2	43
29	Facile mechanochemical modification of g-C ₃ N ₄ for selective photo-oxidation of benzyl alcohol. <i>Chemical Engineering Science</i> , 2019, 194, 78-84.	3.8	43
30	UV and visible hydrogen photo-production using Pt promoted Nb-doped TiO ₂ photo-catalysts: Interpreting quantum efficiency. <i>Applied Catalysis B: Environmental</i> , 2017, 216, 133-145.	20.2	41
31	Benign-by-Design Orange Peel-Templated Nanocatalysts for Continuous Flow Conversion of Levulinic Acid to N-Heterocycles. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 16637-16644.	6.7	38
32	Effective Enhancement of TiO ₂ Photocatalysis by Synergistic Interaction of Surface Species: From Promoters to Co-catalysts. <i>ACS Catalysis</i> , 2014, 4, 4277-4288.	11.2	37
33	Gas phase 2-propanol degradation using titania photocatalysts: Study of the quantum efficiency. <i>Applied Catalysis B: Environmental</i> , 2017, 201, 400-410.	20.2	35
34	Thermo-photo degradation of 2-propanol using a composite ceria-titania catalyst: Physico-chemical interpretation from a kinetic model. <i>Applied Catalysis B: Environmental</i> , 2018, 225, 298-306.	20.2	34
35	Enhancing promoting effects in g-C ₃ N ₄ -Mn ⁺ /CeO ₂ -TiO ₂ ternary composites: Photo-handling of charge carriers. <i>Applied Catalysis B: Environmental</i> , 2015, 176-177, 687-698.	20.2	33
36	Green photo-oxidation of styrene over W-Ti composite catalysts. <i>Journal of Catalysis</i> , 2014, 309, 428-438.	6.2	32

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37	Abatement of organics and Escherichia coli using CeO ₂ -TiO ₂ composite oxides: Ultraviolet and visible light performances. <i>Applied Catalysis B: Environmental</i> , 2014, 154-155, 350-359.	20.2	29
38	Enhanced photocatalytic activity of MWCNT/TiO ₂ heterojunction photocatalysts obtained by microwave assisted synthesis. <i>Catalysis Today</i> , 2016, 266, 102-109.	4.4	29
39	Efficient Ru-based scrap waste automotive converter catalysts for the continuous-flow selective hydrogenation of cinnamaldehyde. <i>Green Chemistry</i> , 2019, 21, 4712-4722.	9.0	29
40	UV and visible light driven H ₂ photo-production using Nb-doped TiO ₂ : Comparing Pt and Pd co-catalysts. <i>Molecular Catalysis</i> , 2017, 437, 1-10.	2.0	28
41	H ₂ photo-production from methanol, ethanol and 2-propanol: Pt-(Nb)TiO ₂ performance under UV and visible light. <i>Molecular Catalysis</i> , 2018, 446, 88-97.	2.0	28
42	Operando Spectroscopy in Photocatalysis. <i>ChemPhotoChem</i> , 2018, 2, 777-785.	3.0	28
43	Controllable Design of Polypyrrole-Iron Oxide Nanocoral Architectures for Supercapacitors with Ultrahigh Cycling Stability. <i>ACS Applied Energy Materials</i> , 2019, 2, 2161-2168.	5.1	25
44	Facile synthesis of B/g-C ₃ N ₄ composite materials for the continuous-flow selective photo-production of acetone. <i>Green Chemistry</i> , 2020, 22, 4975-4984.	9.0	25
45	Versatile Protein-Templated TiO ₂ Nanocomposite for Energy Storage and Catalytic Applications. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 5329-5337.	6.7	24
46	Effect of the anatase-rutile contact in gas phase toluene photodegradation quantum efficiency. <i>Chemical Engineering Journal</i> , 2016, 299, 393-402.	12.7	23
47	Highly Active Catalytic Ruthenium/TiO ₂ Nanomaterials for Continuous Production of Î³-Valerolactone. <i>ChemSusChem</i> , 2018, 11, 2604-2611.	6.8	23
48	Ceria promotion of acetaldehyde photo-oxidation in a TiO ₂ -based catalyst: a spectroscopic and kinetic study. <i>Catalysis Science and Technology</i> , 2015, 5, 1521-1531.	4.1	22
49	Surface CuO, Bi ₂ O ₃ , and CeO ₂ Species Supported in TiO ₂ -Anatase: Study of Interface Effects in Toluene Photodegradation Quantum Efficiency. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 13934-13945.	8.0	22
50	Er-W codoping of TiO ₂ -anatase: Structural and electronic characterization and disinfection capability under UV-vis, and near-IR excitation. <i>Applied Catalysis B: Environmental</i> , 2018, 228, 113-129.	20.2	22
51	Continuous flow synthesis of amines from the cascade reactions of nitriles and carbonyl-containing compounds promoted by Pt-modified titania catalysts. <i>Green Chemistry</i> , 2019, 21, 300-306.	9.0	21
52	Continuous Flow Synthesis of High Valuable N-Heterocycles via Catalytic Conversion of Levulinic Acid. <i>Frontiers in Chemistry</i> , 2019, 7, 103.	3.6	21
53	Toluene and styrene photo-oxidation quantum efficiency: Comparison between doped and composite tungsten-containing anatase-based catalysts. <i>Applied Catalysis B: Environmental</i> , 2019, 245, 49-61.	20.2	21
54	Unprecedented Wiring Efficiency of Sulfonated Graphitic Carbon Nitride Materials: Toward High-Performance Amperometric Recombinant CotA Laccase Biosensors. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 1474-1484.	6.7	21

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55	Sunlight-Driven Hydrogen Production Using an Annular Flow Photoreactor and g-C ₃ N ₄ -Based Catalysts. <i>ChemPhotoChem</i> , 2018, 2, 870-877.	3.0	20
56	Microwave-assisted valorization of pig bristles: towards visible light photocatalytic chalcocite composites. <i>Green Chemistry</i> , 2018, 20, 3001-3007.	9.0	20
57	Improving Electrochemical Hydrogen Evolution of Ag@CN Nanocomposites by Synergistic Effects with Γ -Rich Proteins. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 2207-2215.	8.0	20
58	Sn modification of TiO ₂ anatase and rutile type phases: 2-Propanol photo-oxidation under UV and visible light. <i>Applied Catalysis B: Environmental</i> , 2018, 228, 130-141.	20.2	19
59	A Sustainable Approach for the Synthesis of Catalytically Active Peroxidase-Mimic ZnS Catalysts. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 1300-1307.	6.7	19
60	Encapsulated Laccases as Effective Electrocatalysts for Oxygen Reduction Reactions. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 11058-11062.	6.7	18
61	Waste-derived Materials: Opportunities in Photocatalysis. <i>Topics in Current Chemistry</i> , 2020, 378, 3.	5.8	18
62	Photocatalytic Production of Vanillin over CeO _x and ZrO ₂ Modified Biomass-Templated Titania. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 17085-17093.	3.7	18
63	Novel (NH ₄) ₄ [NiMo ₆ O ₂₄ H ₆]·5H ₂ O "TiO ₂ composite system: Photo-oxidation of toluene under UV and sunlight-type illumination. <i>Applied Catalysis B: Environmental</i> , 2018, 238, 381-392.	20.2	16
64	Microemulsion: A versatile synthesis tool for photocatalysis. <i>Current Opinion in Colloid and Interface Science</i> , 2020, 49, 42-59.	7.4	14
65	Thermal and light irradiation effects on the electrocatalytic performance of hemoglobin modified Co ₃ O ₄ -g-C ₃ N ₄ nanomaterials for the oxygen evolution reaction. <i>Nanoscale</i> , 2020, 12, 8477-8484.	5.6	14
66	Spent Coffee Grounds-Templated Magnetic Nanocatalysts for Mild Oxidations. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 17030-17038.	6.7	13
67	Thermo-photo production of hydrogen using ternary Pt-CeO ₂ -TiO ₂ catalysts: A spectroscopic and mechanistic study. <i>Chemical Engineering Journal</i> , 2021, 425, 130641.	12.7	13
68	Characterization of Photo-catalysts: From Traditional to Advanced Approaches. <i>Topics in Current Chemistry</i> , 2019, 377, 24.	5.8	12
69	Measuring and interpreting quantum efficiency of acid blue 9 photodegradation using TiO ₂ -based catalysts. <i>Applied Catalysis A: General</i> , 2018, 550, 38-47.	4.3	11
70	Mimicking the bioelectrocatalytic function of recombinant CotA laccase through electrostatically self-assembled bioconjugates. <i>Nanoscale</i> , 2019, 11, 1549-1554.	5.6	9
71	Heterogeneous Photocatalysis. <i>ChemEngineering</i> , 2021, 5, 26.	2.4	9
72	Mechanochemically Synthesized Supported Magnetic Fe-Nanoparticles as Catalysts for Efficient Vanillin Production. <i>Catalysts</i> , 2019, 9, 290.	3.5	8

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73	Phase-Contact Engineering in Mono- and Bimetallic Cu-Ni Co-catalysts for Hydrogen Photocatalytic Materials. <i>Angewandte Chemie</i> , 2018, 130, 1213-1217.	2.0	6
74	Enhanced boron modified graphitic carbon nitride for the selective photocatalytic production of benzaldehyde. <i>Separation and Purification Technology</i> , 2022, 298, 121613.	7.9	6
75	Photodegradation of 2-propanol in gas phase over zirconium doped TiO ₂ : Effect of Zr content. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2022, 427, 113774.	3.9	5
76	Recent progress in the quantitative assessment and interpretation of photoactivity. <i>Catalysis Reviews - Science and Engineering</i> , 0, , 1-55.	12.9	5
77	Sunlight active g-C ₃ N ₄ -based Mn+ (M Cu, Ni, Zn, Mn) promoted catalysts: Sharing of nitrogen atoms as a door for optimizing photo-activity. <i>Molecular Catalysis</i> , 2020, 484, 110725.	2.0	2
78	Metabolomics reveals synergy between Ag and g-C ₃ N ₄ in Ag/g-C ₃ N ₄ composite photocatalysts: a unique feature among Ag-doped biocidal materials. <i>Metabolomics</i> , 2021, 17, 53.	3.0	2
79	Pd-Pt bimetallic Nb-doped TiO ₂ for H ₂ photo-production: Gas and liquid phase processes. <i>Molecular Catalysis</i> , 2020, 481, 110240.	2.0	1
80	Waste-derived Materials: Opportunities in Photocatalysis. <i>Topics in Current Chemistry Collections</i> , 2020, , 1-28.	0.5	1