

Juan Carlos Colmenares

List of Publications by Year in descending order

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109
papers

5,486
citations

94433

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82547

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125
docs citations

125
times ranked

7147
citing authors

#	ARTICLE	IF	CITATIONS
1	Role of catalyst supports in biocatalysis. <i>Journal of Chemical Technology and Biotechnology</i> , 2023, 98, 7-21.	3.2	13
2	High-frequency sonication for the synthesis of nanocluster-decorated titania nanorods: Making a better photocatalyst for the selective oxidation of monoaromatic alcohol. <i>Catalysis Communications</i> , 2022, 163, 106406.	3.3	4
3	Carbon-Based Nanocatalysts (CnCs) for Biomass Valorization and Hazardous Organics Remediation. <i>Nanomaterials</i> , 2022, 12, 1679.	4.1	12
4	Bandgap Funneling in Bismuth-Based Hybrid Perovskite Photocatalyst with Efficient Visible-Light-Driven Hydrogen Evolution. <i>Small Methods</i> , 2022, 6, .	8.6	12
5	Boosting the Photoactivity of Grafted Titania: Ultrasound-Driven Synthesis of a Multi-Phase Heterogeneous Nano-Architected Photocatalyst. <i>Advanced Functional Materials</i> , 2021, 31, .	14.9	23
6	Biomass-derived porous aminated graphitic nanosheets for removal of the pharmaceutical metronidazole: Optimization of physicochemical features and exploration of process mechanisms. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 611, 125791.	4.7	21
7	Renewable energy smart sensing system monitoring for off-grid vulnerable community in Colombia. <i>Cogent Engineering</i> , 2021, 8, 1936372.	2.2	4
8	Selective Oxidation of 5-Hydroxymethylfurfural to 2,5-Diformylfuran by Visible Light-Driven Photocatalysis over In Situ Substrate-Sensitized Titania. <i>ChemSusChem</i> , 2021, 14, 1351-1362.	6.8	53
9	Framework to design water-energy solutions based on community perceptions: Case study from a Caribbean coast community in Colombia. <i>Cogent Engineering</i> , 2021, 8, .	2.2	5
10	Nanoengineered Electrodes for Biomass-Derived 5-Hydroxymethylfurfural Electrocatalytic Oxidation to 2,5-Furandicarboxylic Acid. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 1970-1993.	6.7	65
11	Big Data analytics in Smart Grids for renewable energy networks: Systematic review of information and communication technology tools. <i>Cogent Engineering</i> , 2021, 8, .	2.2	10
12	Computational framework for the selection of energy solutions in indigenous communities in Colombia: Kanalitojo case study. <i>Cogent Engineering</i> , 2021, 8, 1926406.	2.2	3
13	Homogeneous photocatalysts immobilized on polymeric supports: Environmental and chemical synthesis applications. , 2021, , 575-588.		0
14	Polydopamine Films with 2D-like Layered Structure and High Mechanical Resilience. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 23113-23120.	8.0	44
15	Scrolled titanate nanosheet composites with reduced graphite oxide for photocatalytic and adsorptive removal of toxic vapors. <i>Chemical Engineering Journal</i> , 2021, 415, 128907.	12.7	17
16	Enhanced uranium removal from acidic wastewater by phosphonate-functionalized ordered mesoporous silica: Surface chemistry matters the most. <i>Journal of Hazardous Materials</i> , 2021, 413, 125279.	12.4	76
17	Ultrasound-assisted decoration of CuOx nanoclusters on TiO2 nanoparticles for additives free photocatalytic hydrogen production and biomass valorization by selective oxidation. <i>Molecular Catalysis</i> , 2021, 514, 111664.	2.0	5
18	Supported Plasmonic Nanocatalysts for Hydrogen Production by Wet and Dry Photoreforming of Biomass and Biogas Derived Compounds: Recent Progress and Future Perspectives. <i>ChemCatChem</i> , 2021, 13, 4458-4496.	3.7	14

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19	Sustainable hydrogen production by plasmonic thermophotocatalysis. <i>Catalysis Today</i> , 2021, 380, 156-186.	4.4	39
20	Analysis of the energy service in non-interconnected zones of Colombia using business intelligence. <i>Cogent Engineering</i> , 2021, 8, .	2.2	4
21	Application of a simulation tool based on a bio-inspired algorithm for optimisation of distributed power generation systems. <i>Cogent Engineering</i> , 2021, 8, 1909791.	2.2	2
22	A comprehensive review on selected graphene synthesis methods: from electrochemical exfoliation through rapid thermal annealing towards biomass pyrolysis. <i>Journal of Materials Chemistry C</i> , 2021, 9, 6722-6748.	5.5	54
23	Methodology for automatic fault detection in photovoltaic arrays from artificial neural networks. <i>Cogent Engineering</i> , 2021, 8, .	2.2	4
24	Titania/chitosan-lignin nanocomposite as an efficient photocatalyst for the selective oxidation of benzyl alcohol under UV and visible light. <i>RSC Advances</i> , 2021, 11, 34996-35010.	3.6	7
25	Recent progress on post-synthetic treatments of photoelectrodes for photoelectrochemical water splitting. <i>Journal of Materials Chemistry A</i> , 2021, 9, 26628-26649.	10.3	14
26	Mechanochemical Forces as a Synthetic Tool for Zero- and One-Dimensional Titanium Oxide-Based Nano-photocatalysts. <i>Topics in Current Chemistry</i> , 2020, 378, 2.	5.8	31
27	Assessment of biofuels production in Colombia. <i>Cogent Engineering</i> , 2020, 7, 1740041.	2.2	5
28	Zeolitic imidazolate frameworks (ZIFs) of various morphologies against eriochrome black-T (EBT): Optimizing the key physicochemical features by process modeling. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 606, 125391.	4.7	32
29	When sonochemistry meets heterogeneous photocatalysis: designing a sonophotoreactor towards sustainable selective oxidation. <i>Green Chemistry</i> , 2020, 22, 4896-4905.	9.0	34
30	Design and development of TiO ₂ coated microflow reactor for photocatalytic partial oxidation of benzyl alcohol. <i>Molecular Catalysis</i> , 2020, 486, 110884.	2.0	17
31	Chitosan-Based N-Doped Carbon Materials for Electrocatalytic and Photocatalytic Applications. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 4708-4727.	6.7	123
32	Ultrasound-activated TiO ₂ /GO-based bifunctional photoreactive adsorbents for detoxification of chemical warfare agent surrogate vapors. <i>Chemical Engineering Journal</i> , 2020, 395, 125099.	12.7	54
33	Lignin-Based Composite Materials for Photocatalysis and Photovoltaics. <i>Topics in Current Chemistry Collections</i> , 2020, , 1-31.	0.5	4
34	Trajectory optimization of an innovative-turbofan-powered aircraft based on particle swarm approach for low environmental impact. <i>Cogent Engineering</i> , 2019, 6, .	2.2	2
35	Agricultural biomass/waste as adsorbents for toxic metal decontamination of aqueous solutions. <i>Journal of Molecular Liquids</i> , 2019, 295, 111684.	4.9	131
36	Additive-free photo-assisted selective partial oxidation at ambient conditions of 5-hydroxymethylfurfural by manganese (IV) oxide nanorods. <i>Applied Catalysis B: Environmental</i> , 2019, 256, 117803.	20.2	74

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37	Thermo-Photocatalysis: Environmental and Energy Applications. ChemSusChem, 2019, 12, 2098-2116.	6.8	115
38	Metal Organic Frameworks as Desulfurization Adsorbents of DBT and 4,6-DMDBT from Fuels. Molecules, 2019, 24, 4525.	3.8	61
39	Selective redox photocatalysis: Is there any chance for solar bio-refineries?. Current Opinion in Green and Sustainable Chemistry, 2019, 15, 38-46.	5.9	30
40	Ultrasound assisted ZnO coating in a microflow based photoreactor for selective oxidation of benzyl alcohol to benzaldehyde. Green Chemistry, 2019, 21, 1241-1246.	9.0	32
41	Facile mechanochemical modification of g-C ₃ N ₄ for selective photo-oxidation of benzyl alcohol. Chemical Engineering Science, 2019, 194, 78-84.	3.8	43
42	Novel biomass-derived hybrid TiO ₂ /carbon material using tar-derived secondary char to improve TiO ₂ bonding to carbon matrix. Journal of Analytical and Applied Pyrolysis, 2018, 131, 35-41.	5.5	28
43	Development of photocatalyst coated fluoropolymer based microreactor using ultrasound for water remediation. Ultrasonics Sonochemistry, 2018, 41, 297-302.	8.2	25
44	Catalytic activity of NiO cathode in molten carbonate fuel cells. Applied Catalysis B: Environmental, 2018, 222, 73-75.	20.2	28
45	Physicochemical and catalytic properties of Pd/MoO ₃ prepared by the sonophotodeposition method. Materials Chemistry and Physics, 2018, 204, 361-372.	4.0	13
46	Lignin-Based Composite Materials for Photocatalysis and Photovoltaics. Topics in Current Chemistry, 2018, 376, 20.	5.8	53
47	Route planning in real time for short-range aircraft with a constant-volume-combustor-gear turbofan to minimize operating costs by particle swarm optimization. Cogent Engineering, 2018, 5, 1429984.	2.2	3
48	Design and Fabrication of TiO ₂ /Lignocellulosic Carbon Materials: Relevance of Low-temperature Sonocrystallization to Photocatalysts Performance. ChemCatChem, 2018, 10, 3469-3480.	3.7	35
49	Techno-environmental assessment of a micro-cogeneration system based on natural gas for residential application. CTyF - Ciencia, Tecnología Y Futuro, 2018, 8, 101-112.	0.5	4
50	Sonochemistry: from Basic Principles to Innovative Applications. Topics in Current Chemistry, 2017, 375, 8.	5.8	45
51	Insight into the synthesis procedure of Fe ³⁺ /TiO ₂ -based photocatalyst applied in the selective photo-oxidation of benzyl alcohol under sun-imitating lamp. Ultrasonics Sonochemistry, 2017, 38, 189-196.	8.2	17
52	A Combined Approach using Sonochemistry and Photocatalysis: How to Apply Sonophotocatalysis for Biomass Conversion?. ChemCatChem, 2017, 9, 2615-2621.	3.7	38
53	Synthesis of Photoactive Materials by Sonication: Application in Photocatalysis and Solar Cells. Topics in Current Chemistry Collections, 2017, , 95-115.	0.5	3
54	Atomistic insight into the electrode reaction mechanism of the cathode in molten carbonate fuel cells. Journal of Materials Chemistry A, 2017, 5, 13763-13768.	10.3	18

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55	Dual Functionality of TiO ₂ /Biochar Hybrid Materials: Photocatalytic Phenol Degradation in the Liquid Phase and Selective Oxidation of Methanol in the Gas Phase. ACS Sustainable Chemistry and Engineering, 2017, 5, 6274-6287.	6.7	130
56	Sonocatalysis: A Potential Sustainable Pathway for the Valorization of Lignocellulosic Biomass and Derivatives. Topics in Current Chemistry, 2017, 375, 41.	5.8	41
57	Selective photocatalysis of lignin-inspired chemicals by integrating hybrid nanocatalysis in microfluidic reactors. Chemical Society Reviews, 2017, 46, 6675-6686.	38.1	102
58	Multichannel Charge Transfer and Mechanistic Insight in Metal Decorated 2D Bi ₂ WO ₆ @TiO ₂ Cascade with Enhanced Photocatalytic Performance. Small, 2017, 13, 1702253.	10.0	117
59	Toward a Comprehensive Understanding of Enhanced Photocatalytic Activity of the Bimetallic PdAu/TiO ₂ Catalyst for Selective Oxidation of Methanol to Methyl Formate. ACS Applied Materials & Interfaces, 2017, 9, 31825-31833.	8.0	36
60	Wheat bran valorisation: Towards photocatalytic nanomaterials for benzyl alcohol photo-oxidation. Journal of Environmental Management, 2017, 203, 768-773.	7.8	11
61	In Situ Coupling of Ultrasound to Electro- and Photo-Deposition Methods for Materials Synthesis. Molecules, 2017, 22, 216.	3.8	22
62	Photoactive Hybrid Catalysts Based on Natural and Synthetic Polymers: A Comparative Overview. Molecules, 2017, 22, 790.	3.8	35
63	Mechanochemical Synthesis of TiO ₂ Nanocomposites as Photocatalysts for Benzyl Alcohol Photo-Oxidation. Nanomaterials, 2016, 6, 93.	4.1	41
64	Catalytic Dry Reforming for Biomass-Based Fuels Processing: Progress and Future Perspectives. Energy Technology, 2016, 4, 881-890.	3.8	27
65	Insight on the Interaction of Methanol-Selective Oxidation Intermediates with Au- or/and Pd-Containing Monometallic and Bimetallic Core@Shell Catalysts. Langmuir, 2016, 32, 7493-7502.	3.5	25
66	Sustainable hybrid photocatalysts: titania immobilized on carbon materials derived from renewable and biodegradable resources. Green Chemistry, 2016, 18, 5736-5750.	9.0	158
67	Synthesis of Photoactive Materials by Sonication: Application in Photocatalysis and Solar Cells. Topics in Current Chemistry, 2016, 374, 59.	5.8	14
68	Sonication and light irradiation as green energy sources simultaneously implemented in the synthesis of Pd-Fe- and Pt-Fe- doped TiO ₂ -based photocatalysts. Journal of Molecular Catalysis A, 2016, 425, 1-9.	4.8	12
69	Iron-Containing Titania Photocatalyst Prepared by the Sonophotodeposition Method for the Oxidation of Benzyl Alcohol. ChemCatChem, 2016, 8, 536-539.	3.7	19
70	Preparation by sonophotodeposition method of bimetallic photocatalysts Pd-Cu/TiO ₂ for sustainable gaseous selective oxidation of methanol to methyl formate. Journal of Molecular Catalysis A, 2016, 411, 247-256.	4.8	28
71	Solar-Chemical Energy Conversion by Photocatalysis. Green Chemistry and Sustainable Technology, 2016, , 249-282.	0.7	1
72	A sustainable approach for lignin valorization by heterogeneous photocatalysis. Green Chemistry, 2016, 18, 594-607.	9.0	238

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73	Mild ultrasound-assisted synthesis of TiO ₂ supported on magnetic nanocomposites for selective photo-oxidation of benzyl alcohol. <i>Applied Catalysis B: Environmental</i> , 2016, 183, 107-112.	20.2	103
74	Polypropylene nonwoven filter with nanosized ZnO rods: Promising hybrid photocatalyst for water purification. <i>Applied Catalysis B: Environmental</i> , 2015, 170-171, 273-282.	20.2	32
75	Sonophotodeposition of Bimetallic Photocatalysts Pd@Au/TiO ₂ : Application to Selective Oxidation of Methanol to Methyl Formate. <i>ChemSusChem</i> , 2015, 8, 1676-1685.	6.8	55
76	One-dimension-based spatially ordered architectures for solar energy conversion. <i>Chemical Society Reviews</i> , 2015, 44, 5053-5075.	38.1	367
77	Hierarchically CdS Decorated 1D ZnO Nanorods@2D Graphene Hybrids: Low Temperature Synthesis and Enhanced Photocatalytic Performance. <i>Advanced Functional Materials</i> , 2015, 25, 221-229.	14.9	394
78	Chapter 8. Nanophotocatalysis in Selective Transformations of Lignocellulose-derived Molecules: A Green Approach for the Synthesis of Fuels, Fine Chemicals, and Pharmaceuticals. <i>RSC Green Chemistry</i> , 2015, , 168-201.	0.1	5
79	Unprecedented photocatalytic activity of carbonized leather skin residues containing chromium oxide phases. <i>Applied Catalysis B: Environmental</i> , 2014, 150-151, 432-437.	20.2	13
80	A simple and efficient approach to the synthesis of ¹² N-methylamino-l-alanine (BMAA). <i>Tetrahedron Letters</i> , 2014, 55, 2335-2336.	1.4	2
81	Heterogeneous photocatalytic nanomaterials: prospects and challenges in selective transformations of biomass-derived compounds. <i>Chemical Society Reviews</i> , 2014, 43, 765-778.	38.1	539
82	Sonication-Induced Pathways in the Synthesis of Light-Active Catalysts for Photocatalytic Oxidation of Organic Contaminants. <i>ChemSusChem</i> , 2014, 7, 1512-1527.	6.8	42
83	Efficient and simple reactive milling preparation of photocatalytically active porous ZnO nanostructures using biomass derived polysaccharides. <i>Green Chemistry</i> , 2014, 16, 2876-2885.	9.0	68
84	A new photocatalytic tool in VOCs abatement: Effective synergetic combination of sonication and light for the synthesis of monometallic palladium-containing TiO ₂ . <i>Applied Catalysis B: Environmental</i> , 2014, 147, 624-632.	20.2	28
85	Low-temperature ultrasound-promoted synthesis of Cr@TiO ₂ -supported photocatalysts for valorization of glucose and phenol degradation from liquid phase. <i>Applied Catalysis B: Environmental</i> , 2013, 134-135, 136-144.	20.2	61
86	A novel biomass-based support (Starbon) for TiO ₂ hybrid photocatalysts: a versatile green tool for water purification. <i>RSC Advances</i> , 2013, 3, 20186-20192.	3.6	37
87	Room temperature versatile conversion of biomass-derived compounds by means of supported TiO ₂ photocatalysts. <i>Journal of Molecular Catalysis A</i> , 2013, 366, 156-162.	4.8	46
88	Ultrasound and Photochemical Procedures for Nanocatalysts Preparation: Application in Photocatalytic Biomass Valorization. <i>Journal of Nanoscience and Nanotechnology</i> , 2013, 13, 4787-4798.	0.9	17
89	Sonication-Assisted Low-Temperature Routes for the Synthesis of Supported Fe@TiO ₂ Ecomaterials: Partial Photooxidation of Glucose and Phenol Aqueous Degradation. <i>ChemCatChem</i> , 2013, 5, 2270-2277.	3.7	36
90	Carbonaceous residues from biomass gasification as catalysts for biodiesel production. <i>Journal of Natural Gas Chemistry</i> , 2012, 21, 246-250.	1.8	43

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91	Selective photooxidation of alcohols as test reaction for photocatalytic activity. Applied Catalysis B: Environmental, 2012, 128, 150-158.	20.2	27
92	High-value chemicals obtained from selective photo-oxidation of glucose in the presence of nanostructured titanium photocatalysts. Bioresource Technology, 2011, 102, 11254-11257.	9.6	103
93	Influence of the strong metal support interaction effect (SMSI) of Pt/TiO ₂ and Pd/TiO ₂ systems in the photocatalytic biohydrogen production from glucose solution. Catalysis Communications, 2011, 16, 1-6.	3.3	108
94	The effect of copper and gold on the catalytic behavior of nickel/alumina catalysts in hydrogen-assisted dechlorination of 1,2-dichloroethane. Catalysis Today, 2011, 169, 186-191.	4.4	24
95	Novel Trends in the Utilization of CO ₂ as a Reagent and Mild Oxidant in the C-C Coupling Reactions. Current Organic Synthesis, 2010, 7, 533-542.	1.3	6
96	Titania nano-photocatalysts synthesized by ultrasound and microwave methodologies: Application in depuration of water from 3-chloropyridine. Journal of Molecular Catalysis A, 2010, 331, 58-63.	4.8	16
97	Nanostructured Photocatalysts and Their Applications in the Photocatalytic Transformation of Lignocellulosic Biomass: An Overview. Materials, 2009, 2, 2228-2258.	2.9	168
98	Chemical trapping studies to the determination of surface species under reaction conditions for the catalytic side-chain oxidative alkylation of toluene by methane. Journal of Molecular Catalysis A, 2009, 309, 21-27.	4.8	2
99	Poly(4-vinylpyridine) catalyzed selective methanolysis of methyl and methylene bromides. Tetrahedron Letters, 2009, 50, 6016-6018.	1.4	6
100	Poly(4-vinylpyridine) catalyzed hydrolysis of methyl bromide to methanol and dimethyl ether. Journal of Molecular Catalysis A, 2009, 310, 180-183.	4.8	13
101	Application of the Geared Turbofan With Constant Volume Combustor on Short-Range Aircraft: A Feasibility Study. , 2009, , .		0
102	Modification of the photocatalytic activity of Pd/TiO ₂ and Zn/TiO ₂ systems through different oxidative and reductive calcination treatments. Applied Catalysis B: Environmental, 2008, 80, 88-97.	20.2	59
103	Photocatalytic degradation of chlorinated pyridines in titania aqueous suspensions. Catalysis Today, 2008, 138, 110-116.	4.4	24
104	A short synthesis of (+)-hygrine. Tetrahedron Letters, 2008, 49, 3995-3996.	1.4	13
105	A versatile synthesis of (+)-deoxoprosopinine and (âˆ—)-deoxoprosophylline. Tetrahedron Letters, 2008, 49, 6972-6973.	1.4	11
106	Effect of the redox treatment of Pt/TiO ₂ system on its photocatalytic behaviour in the gas phase selective photooxidation of propan-2-ol. Catalysis Today, 2007, 128, 235-244.	4.4	58
107	Screening of different zeolite-based catalysts for gas-phase selective photooxidation of propan-2-ol. Catalysis Today, 2007, 129, 102-109.	4.4	18
108	Synthesis, characterization and photocatalytic activity of different metal-doped titania systems. Applied Catalysis A: General, 2006, 306, 120-127.	4.3	271

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109	Diphenylmethane transformations over boron trifluoride modified alumina and silica-alumina. Reaction Kinetics and Catalysis Letters, 2004, 81, 333-339.	0.6	0