

Manuel Ignacio Maldonado

List of Publications by Year in descending order

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75
papers

8,168
citations

46918

47
h-index

76769

74
g-index

75
all docs

75
docs citations

75
times ranked

7698
citing authors

#	ARTICLE	IF	CITATIONS
1	Decontamination and disinfection of water by solar photocatalysis: Recent overview and trends. <i>Catalysis Today</i> , 2009, 147, 1-59.	2.2	2,574
2	Degradation of fifteen emerging contaminants at 10^{-4} g/L initial concentrations by mild solar photo-Fenton in MWTP effluents. <i>Water Research</i> , 2010, 44, 545-554.	5.3	293
3	Photocatalytic decontamination and disinfection of water with solar collectors. <i>Catalysis Today</i> , 2007, 122, 137-149.	2.2	252
4	Mature landfill leachate treatment by coagulation/flocculation combined with Fenton and solar photo-Fenton processes. <i>Journal of Hazardous Materials</i> , 2015, 286, 261-268.	6.5	239
5	Applied studies in solar photocatalytic detoxification: an overview. <i>Solar Energy</i> , 2003, 75, 329-336.	2.9	233
6	Enhancement of the rate of solar photocatalytic mineralization of organic pollutants by inorganic oxidizing species. <i>Applied Catalysis B: Environmental</i> , 1998, 17, 347-356.	10.8	198
7	Review of feasible solar energy applications to water processes. <i>Renewable and Sustainable Energy Reviews</i> , 2009, 13, 1437-1445.	8.2	177
8	Solar efficiency of a new deposited titania photocatalyst: chlorophenol, pesticide and dye removal applications. <i>Applied Catalysis B: Environmental</i> , 2003, 46, 319-332.	10.8	174
9	Solar photocatalytic degradation of some hazardous water-soluble pesticides at pilot-plant scale. <i>Journal of Hazardous Materials</i> , 2006, 138, 507-517.	6.5	170
10	Pilot-plant treatment of olive mill wastewater (OMW) by solar TiO ₂ photocatalysis and solar photo-Fenton. <i>Solar Energy</i> , 2004, 77, 567-572.	2.9	158
11	Decontamination and disinfection of water by solar photocatalysis: The pilot plants of the Plataforma Solar de Almeria. <i>Materials Science in Semiconductor Processing</i> , 2016, 42, 15-23.	1.9	152
12	Decomposition of diclofenac by solar driven photocatalysis at pilot plant scale. <i>Catalysis Today</i> , 2005, 101, 219-226.	2.2	138
13	Solar photocatalytic degradation and detoxification of EU priority substances. <i>Catalysis Today</i> , 2005, 101, 203-210.	2.2	135
14	Degradation of pesticides in water using solar advanced oxidation processes. <i>Applied Catalysis B: Environmental</i> , 2006, 64, 272-281.	10.8	130
15	Degradation of emerging contaminants at low concentrations in MWTPs effluents with mild solar photo-Fenton and TiO ₂ . <i>Catalysis Today</i> , 2009, 144, 124-130.	2.2	126
16	In situ electrochemical and photo-electrochemical generation of the fenton reagent: A potentially important new water treatment technology. <i>Water Research</i> , 2006, 40, 1754-1762.	5.3	122
17	Enhancing biodegradability of priority substances (pesticides) by solar photo-Fenton. <i>Water Research</i> , 2006, 40, 1086-1094.	5.3	120
18	Optimising solar photocatalytic mineralisation of pesticides by adding inorganic oxidising species; application to the recycling of pesticide containers. <i>Applied Catalysis B: Environmental</i> , 2000, 28, 163-174.	10.8	112

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19	Comparison of hydrogen peroxide-based processes for treating dye-containing wastewater: Decolorization and destruction of Orange II azo dye in dilute solution. <i>Dyes and Pigments</i> , 2008, 76, 656-662.	2.0	107
20	Solar photo-Fenton treatment of pesticides in water: Effect of iron concentration on degradation and assessment of ecotoxicity and biodegradability. <i>Applied Catalysis B: Environmental</i> , 2009, 88, 448-454.	10.8	107
21	Detoxification of wastewater containing five common pesticides by solar AOPs—biological coupled system. <i>Catalysis Today</i> , 2007, 129, 69-78.	2.2	101
22	Pilot plant scale reactive dyes degradation by solar photo-Fenton and biological processes. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2008, 195, 205-214.	2.0	93
23	Photocatalytic degradation of EU priority substances: A comparison between TiO ₂ and Fenton plus photo-Fenton in a solar pilot plant. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2007, 185, 354-363.	2.0	90
24	Evaluation of operational parameters involved in solar photo-Fenton degradation of a commercial pesticide mixture. <i>Catalysis Today</i> , 2009, 144, 94-99.	2.2	90
25	Optimization of electrocatalytic H ₂ O ₂ production at pilot plant scale for solar-assisted water treatment. <i>Applied Catalysis B: Environmental</i> , 2019, 242, 327-336.	10.8	83
26	Optimization of pre-industrial solar photocatalytic mineralization of commercial pesticides. <i>Applied Catalysis B: Environmental</i> , 2000, 25, 31-38.	10.8	81
27	A novel TiO ₂ -assisted solar photocatalytic batch-process disinfection reactor for the treatment of biological and chemical contaminants in domestic drinking water in developing countries. <i>Solar Energy</i> , 2004, 77, 649-655.	2.9	80
28	Supported TiO ₂ solar photocatalysis at semi-pilot scale: degradation of pesticides found in citrus processing industry wastewater, reactivity and influence of photogenerated species. <i>Journal of Chemical Technology and Biotechnology</i> , 2015, 90, 149-157.	1.6	75
29	Modified photo-Fenton for degradation of emerging contaminants in municipal wastewater effluents. <i>Catalysis Today</i> , 2011, 161, 241-246.	2.2	72
30	Activity of the ZnO—Fe ₂ O ₃ catalyst on the degradation of Dicamba and 2,4-D herbicides using simulated solar light. <i>Ceramics International</i> , 2014, 40, 8701-8708.	2.3	68
31	A combined solar photocatalytic-biological field system for the mineralization of an industrial pollutant at pilot scale. <i>Catalysis Today</i> , 2007, 122, 150-159.	2.2	67
32	Evaluation of operating parameters involved in solar photo-Fenton treatment of wastewater: Interdependence of initial pollutant concentration, temperature and iron concentration. <i>Applied Catalysis B: Environmental</i> , 2010, 97, 292-298.	10.8	65
33	Tertiary treatment of pulp mill wastewater by solar photo-Fenton. <i>Journal of Hazardous Materials</i> , 2012, 225-226, 173-181.	6.5	63
34	Photocatalytic hydrogen production in a solar pilot plant using a Au/TiO ₂ photo catalyst. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 11933-11940.	3.8	62
35	Solar pilot plant scale hydrogen generation by irradiation of Cu/TiO ₂ composites in presence of sacrificial electron donors. <i>Applied Catalysis B: Environmental</i> , 2018, 229, 15-23.	10.8	62
36	Combined nanofiltration and photo-Fenton treatment of water containing micropollutants. <i>Chemical Engineering Journal</i> , 2013, 224, 89-95.	6.6	61

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37	Heterogeneous photocatalytic hydrogen generation in a solar pilot plant. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 12718-12724.	3.8	61
38	Scale-up strategy for a combined solar photo-Fenton/biological system for remediation of pesticide-contaminated water. <i>Catalysis Today</i> , 2010, 151, 100-106.	2.2	57
39	Cost estimation of COD and color removal from landfill leachate using combined coffee-waste based activated carbon with advanced oxidation processes. <i>Journal of Environmental Chemical Engineering</i> , 2017, 5, 114-121.	3.3	56
40	Solar Photochemical Treatment of Winery Wastewater in a CPC Reactor. <i>Journal of Agricultural and Food Chemistry</i> , 2009, 57, 11242-11248.	2.4	55
41	Remediation of agro-food industry effluents by biotreatment combined with supported TiO ₂ /H ₂ O ₂ solar photocatalysis. <i>Chemical Engineering Journal</i> , 2015, 273, 205-213.	6.6	55
42	Photocatalytic Pilot Scale Degradation Study of Pyrimethanil and of Its Main Degradation Products in Waters by Means of Solid-Phase Extraction Followed by Gas and Liquid Chromatography with Mass Spectrometry Detection. <i>Environmental Science & Technology</i> , 2000, 34, 1563-1571.	4.6	54
43	Treatment of pulp mill wastewater by <i>Cryptococcus podzolicus</i> and solar photo-Fenton: A case study. <i>Chemical Engineering Journal</i> , 2014, 245, 158-165.	6.6	54
44	Photocatalytic properties of nano-structured TiO ₂ -carbon films obtained by means of electrophoretic deposition. <i>Journal of Hazardous Materials</i> , 2007, 147, 588-593.	6.5	52
45	Solar photocatalytic mineralization of commercial pesticides: Methamidophos. <i>Chemosphere</i> , 1999, 38, 1145-1156.	4.2	51
46	A reliable monitoring of the biocompatibility of an effluent along an oxidative pre-treatment by sequential bioassays and chemical analyses. <i>Water Research</i> , 2009, 43, 784-792.	5.3	51
47	Coupling solar photo-Fenton and biotreatment at industrial scale: Main results of a demonstration plant. <i>Journal of Hazardous Materials</i> , 2007, 146, 440-446.	6.5	50
48	Improved landfill leachate quality using ozone, UV solar radiation, hydrogen peroxide, persulfate and adsorption processes. <i>Journal of Environmental Management</i> , 2019, 232, 45-51.	3.8	50
49	Solar treatment of cork boiling and bleaching wastewaters in a pilot plant. <i>Water Research</i> , 2009, 43, 4050-4062.	5.3	49
50	Degradation Pathways of the Commercial Reactive Azo Dye Procion Red H-E7B under Solar-Assisted Photo-Fenton Reaction. <i>Environmental Science & Technology</i> , 2008, 42, 6663-6670.	4.6	46
51	Evaluating Microtox [®] as a tool for biodegradability assessment of partially treated solutions of pesticides using Fe ³⁺ and TiO ₂ solar photo-assisted processes. <i>Ecotoxicology and Environmental Safety</i> , 2008, 69, 546-555.	2.9	43
52	Microcontaminant removal by solar photo-Fenton at natural pH run with sequential and continuous iron additions. <i>Chemical Engineering Journal</i> , 2014, 235, 132-140.	6.6	41
53	Solar transformation and photocatalytic treatment of cocaine in water: Kinetics, characterization of major intermediate products and toxicity evaluation. <i>Applied Catalysis B: Environmental</i> , 2011, 104, 37-48.	10.8	39
54	Coupled solar photo-Fenton and biological treatment for the degradation of diuron and linuron herbicides at pilot scale. <i>Chemosphere</i> , 2008, 72, 622-629.	4.2	38

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55	Solar photo-Fenton degradation of herbicides partially dissolved in water. <i>Catalysis Today</i> , 2011, 161, 214-220.	2.2	38
56	Increased biodegradability of Ultracid™ in aqueous solutions with solar TiO ₂ photocatalysis. <i>Chemosphere</i> , 2007, 68, 293-300.	4.2	33
57	Solar photocatalysis of a recalcitrant coloured effluent from a wastewater treatment plant. <i>Photochemical and Photobiological Sciences</i> , 2009, 8, 691-698.	1.6	27
58	Hydrogen generation by irradiation of commercial CuO + TiO ₂ mixtures at solar pilot plant scale and in presence of organic electron donors. <i>Applied Catalysis B: Environmental</i> , 2019, 257, 117890.	10.8	27
59	Photolytic and photocatalytic transformation of methadone in aqueous solutions under solar irradiation: Kinetics, characterization of major intermediate products and toxicity evaluation. <i>Water Research</i> , 2011, 45, 4815-4826.	5.3	26
60	Solar CPC pilot plant photocatalytic degradation of bisphenol A in waters and wastewaters using suspended and supported-TiO ₂ . Influence of photogenerated species. <i>Environmental Science and Pollution Research</i> , 2014, 21, 12112-12121.	2.7	25
61	Photo-decolorization and ecotoxicological effects of solar compound parabolic collector pilot plant and artificial light photocatalysis of indigo carmine dye. <i>Dyes and Pigments</i> , 2015, 113, 571-580.	2.0	25
62	Solar heterogeneous and homogeneous photocatalysis as a pre-treatment option for biotreatment. <i>Research on Chemical Intermediates</i> , 2007, 33, 407-420.	1.3	20
63	Molecular characterization of activated sludge from a seawater processing wastewater treatment plant. <i>Microbial Biotechnology</i> , 2011, 4, 628-642.	2.0	19
64	Solar photocatalytic treatment of landfill leachate using a solid mineral by-product as a catalyst. <i>Chemosphere</i> , 2012, 88, 1090-1096.	4.2	18
65	Solar CPC Pilot Plant Photocatalytic Degradation of Indigo Carmine Dye in Waters and Wastewaters Using Supported-TiO ₂ : Influence of Photodegradation Parameters. <i>International Journal of Photoenergy</i> , 2015, 2015, 1-12.	1.4	18
66	Fosetyl-Al photo-Fenton degradation and its endogenous catalyst inhibition. <i>Journal of Hazardous Materials</i> , 2014, 265, 177-184.	6.5	11
67	Photocatalytic hydrogen production from water-methanol and -glycerol mixtures using Pd/TiO ₂ (-WO ₃) catalysts and validation in a solar pilot plant. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 36152-36166.	3.8	11
68	2,4-Dichlorophenol degradation by means of heterogeneous photocatalysis. Comparison between laboratory and pilot plant performance. <i>Chemical Engineering Journal</i> , 2013, 232, 405-417.	6.6	9
69	Fenton and solar photo-Fenton processes in the depuration of wastewater resulting from production of grape juice. A factorial design. <i>Journal of Chemical Technology and Biotechnology</i> , 2020, 95, 1329-1336.	1.6	9
70	Advanced oxidation process as biological system for wastewater containing a recalcitrant pollutant. <i>Water Science and Technology</i> , 2007, 55, 229-235.	1.2	8
71	Removal of Pesticides from Water and Wastewater by Solar-Driven Photocatalysis. <i>Springer Briefs in Molecular Science</i> , 2012, , 59-76.	0.1	3
72	Solar Photocatalytic Processes: Water Decontamination and Disinfection. , 2013, , 371-393.		3

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73	Comparison of Photo-Fenton Treatment and Coupled Photo-Fenton and Biological Treatment for Detoxification of Pharmaceutical Industry Contaminants. <i>Journal of Advanced Oxidation Technologies</i> , 2008, 11, .	0.5	2
74	Removal of organic matter from wastewater coming from fruit juice production using solar photo-Fenton process. <i>International Journal of Chemical Reactor Engineering</i> , 2021, 19, 809-815.	0.6	2
75	CHAPTER 6. Process Integration. Concepts of Integration and Coupling of Photocatalysis with Other Processes. <i>RSC Energy and Environment Series</i> , 2016, , 157-173.	0.2	2