Raffaele Marotta

List of Publications by Year
in descending order

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105 papers	9,448 citations	81900 39 h-index	37204 96 g-index
109 all docs	109 docs citations	109 times ranked	9963 citing authors

#	Article	IF	Citations
1	Advanced oxidation processes (AOP) for water purification and recovery. Catalysis Today, 1999, 53, 51-59.	4.4	2,004
2	Pharmaceuticals in STP effluents and their solar photodegradation in aquatic environment. Chemosphere, 2003, 50, 1319-1330.	8.2	1,064
3	Homogeneous photo-Fenton processes at near neutral pH: A review. Applied Catalysis B: Environmental, 2017, 209, 358-371.	20.2	621
4	Solar photocatalysis: Materials, reactors, some commercial, and pre-industrialized applications. A comprehensive approach. Applied Catalysis B: Environmental, 2015, 170-171, 90-123.	20.2	541
5	Advanced oxidation of the pharmaceutical drug diclofenac with UV/H2O2 and ozone. Water Research, 2004, 38, 414-422.	11.3	382
6	Antibiotic removal from wastewaters: The ozonation of amoxicillin. Journal of Hazardous Materials, 2005, 122, 243-250.	12.4	342
7	Kinetic and chemical assessment of the UV/H2O2 treatment of antiepileptic drug carbamazepine. Chemosphere, 2004, 54, 497-505.	8.2	306
8	Paracetamol oxidation from aqueous solutions by means of ozonation and H2O2/UV system. Water Research, 2003, 37, 993-1004.	11.3	297
9	Antibiotics in the Environment:Â Occurrence in Italian STPs, Fate, and Preliminary Assessment on Algal Toxicity of Amoxicillin. Environmental Science & Technology, 2004, 38, 6832-6838.	10.0	270
10	Carbamazepine in water: persistence in the environment, ozonation treatment and preliminary assessment on algal toxicity. Water Research, 2002, 36, 2869-2877.	11.3	259
11	The use of manganese dioxide as a heterogeneous catalyst for oxalic acid ozonation in aqueous solution. Applied Catalysis A: General, 1996, 138, 75-81.	4.3	168
12	Lincomycin solar photodegradation, algal toxicity and removal from wastewaters by means of ozonation. Water Research, 2006, 40, 630-638.	11.3	144
13	Bezafibrate removal by means of ozonation: Primary intermediates, kinetics, and toxicity assessment. Water Research, 2007, 41, 2525-2532.	11.3	123
14	Advanced Oxidation Chemistry of Paracetamol. UV/H2O2-Induced Hydroxylation/Degradation Pathways and15N-Aided Inventory of Nitrogenous Breakdown Products.. Journal of Organic Chemistry, 2002, 67, 6143-6151.	3.2	119
15	Ozonation and H2O2/UV treatment of clofibric acid in water: a kinetic investigation. Journal of Hazardous Materials, 2003, 103, 233-246.	12.4	119
16	Copper modified-TiO2 catalysts for hydrogen generation through photoreforming of organics. A short review. International Journal of Hydrogen Energy, 2014, 39, 16812-16831.	7.1	115
17	The ozonation of pyruvic acid in aqueous solutions catalyzed by suspended and dissolved manganese. Water Research, 1998, 32, 1492-1496.	11.3	76
18	Removal of nitrate and simultaneous hydrogen generation through photocatalytic reforming of glycerol over â€œin situâ€•prepared zero-valent nano copper/P25. Applied Catalysis B: Environmental, 2017, 202, 539-549.	20.2	76

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19	Oxidation of aromatic substrates in water/goethite slurry by means of hydrogen peroxide. Water Research, 2002, 36, 4691-4698.	11.3	71
20	Photodegradation of naproxen and its photoproducts in aqueous solution at 254Ânm: A kinetic investigation. Water Research, 2013, 47, 373-383.	11.3	69
21	TiO2/Cu(II) photocatalytic production of benzaldehyde from benzyl alcohol in solar pilot plant reactor. Applied Catalysis B: Environmental, 2013, 136-137, 56-63.	20.2	67
22	Simultaneous removal of heavy metals from field-polluted soils and treatment of soil washing effluents through combined adsorption and artificial sunlight-driven photocatalytic processes. Chemical Engineering Journal, 2016, 283, 1484-1493.	12.7	66
23	Selective oxidation of benzyl alcohol to benzaldehyde in water by TiO2/Cu(II)/UV solar system. Chemical Engineering Journal, 2011, 172, 243-249.	12.7	64
24	Oxidation of 3,4-dihydroxybenzoic acid by means of hydrogen peroxide in aqueous goethite slurry. Water Research, 2002, 36, 2761-2768.	11.3	62
25	Advanced oxidation processes for the treatment of mineral oil-contaminated wastewaters. Water Research, 2000, 34, 620-628.	11.3	60
26	Hydrogen Generation through Solar Photocatalytic Processes: A Review of the Configuration and the Properties of Effective Metal-Based Semiconductor Nanomaterials. Energies, 2017, 10, 1624.	3.1	56
27	The oxidation of metol (N-methyl-p-aminophenol) in aqueous solution by UV/H2O2 photolysis. Water Research, 2000, 34, 463-472.	11.3	55
28	Effect of combined physico-chemical processes on the phytotoxicity of olive mill wastewaters. Water Research, 2008, 42, 1684-1692.	11.3	51
29	Hydrogen production through photoreforming processes over Cu2O/TiO2 composite materials: A mini-review. International Journal of Hydrogen Energy, 2020, 45, 28531-28552.	7.1	51
30	Photodegradation and ecotoxicology of acyclovir in water under UV254 and UV254/H2O2 processes. Water Research, 2017, 122, 591-602.	11.3	50
31	Kinetic investigation of Cu(II) ions photoreduction in presence of titanium dioxide and formic acid. Water Research, 2008, 42, 4498-4506.	11.3	48
32	Kinetic modeling of pyruvic acid ozonation in aqueous solutions catalyzed by Mn(II) and Mn(IV) ions. Water Research, 2001, 35, 109-120.	11.3	46
33	Fe(III) homogeneous photocatalysis for the removal of 1,2-dichlorobenzene in aqueous solution by means UV lamp and solar light. Water Research, 2006, 40, 3785-3792.	11.3	46
34	Oxidation of 2,4-dichlorophenol and 3,4-dichlorophenol by means of Fe(III)-homogeneous photocatalysis and algal toxicity assessment of the treated solutions. Water Research, 2011, 45, 2038-2048.	11.3	46
35	Removal of benzoic acid in aqueous solution by Fe(III) homogeneous photocatalysis. Water Research, 2004, 38, 1225-1236.	11.3	45
36	In situ photodeposited nanoCu on TiO2 as a catalyst for hydrogen production under UV/visible radiation. Applied Catalysis A: General, 2016, 518, 142-149.	4.3	44

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37	Kinetic modeling of hydrogen generation over nano-Cu (s) /TiO 2 catalyst through photoreforming of alcohols. Catalysis Today, 2017, 281, 117-123.	4.4	44
38	Treatment of saline produced water through photocatalysis using rGO-TiO2 nanocomposites. Catalysis Today, 2018, 315, 194-204.	4.4	44
39	Evidencing opposite charge-transfer processes at TiO2/graphene-related materials interface through a combined EPR, photoluminescence and photocatalysis assessment. Catalysis Today, 2018, 315, 19-30.	4.4	42
40	A kinetic model for the degradation of benzothiazole by Fe3+-photo-assisted Fenton process in a completely mixed batch reactor. Journal of Hazardous Materials, 2000, 80, 241-257.	12.4	40
41	TiO 2 /graphene-like photocatalysts for selective oxidation of 3-pyridine-methanol to vitamin B3 under UV/solar simulated radiation in aqueous solution at room conditions: The effect of morphology on catalyst performances. Applied Catalysis A: General, 2014, 487, 91-99.	4.3	39
42	Removal of EDDS and copper from waters by TiO2 photocatalysis under simulated UVâ€“solar conditions. Chemical Engineering Journal, 2014, 251, 257-268.	12.7	39
43	Copper and zinc removal from contaminated soils through soil washing process using ethylenediaminedisuccinic acid as a chelating agent: A modeling investigation. Journal of Environmental Chemical Engineering, 2016, 4, 2878-2891.	6.7	39
44	Ozonation of p-chlorophenol in aqueous solution. Journal of Hazardous Materials, 1999, 69, 303-317.	12.4	38
45	Biodegradation, ecotoxicity and UV254/H2O2 treatment of imidazole, 1-methyl-imidazole and N,N'-alkyl-imidazolium chlorides in water. Water Research, 2016, 106, 450-460.	11.3	37
46	Iron(III) (hydr)oxide-mediated photooxidation of 2-aminophenol in aqueous solution: a kinetic study. Water Research, 2003, 37, 3682-3688.	11.3	36
47	Energy recovery in wastewater decontamination: Simultaneous photocatalytic oxidation of an organic substrate and electricity generation. Water Research, 2009, 43, 2710-2716.	11.3	35
48	Effect of surface properties of copper-modified commercial titanium dioxide photocatalysts on hydrogen production through photoreforming of alcohols. International Journal of Hydrogen Energy, 2017, 42, 28349-28362.	7.1	34
49	Removal of antiretroviral drugs stavudine and zidovudine in water under UV254 and UV254/H2O2 processes: Quantum yields, kinetics and ecotoxicology assessment. Journal of Hazardous Materials, 2018, 349, 195-204.	12.4	33
50	Oxidation of benzothiazole, 2-mercaptobenzothiazole and 2-hydroxybenzothiazole in aqueous solution by means of H2O2/UV or photoassisted Fenton systems. Journal of Chemical Technology and Biotechnology, 2001, 76, 196-202.	3.2	32
51	Effects of photobioreactors design and operating conditions on Stichococcus bacillaris biomass and biodiesel production. Biochemical Engineering Journal, 2013, 74, 8-14.	3.6	31
52	Simulated solar photocatalytic processes for the simultaneous removal of EDDS, Cu(II), Fe(III) and Zn(II) in synthetic and real contaminated soil washing solutions. Journal of Environmental Chemical Engineering, 2014, 2, 1969-1979.	6.7	31
53	Evaluation of biodegradation kinetic constants for aromatic compounds by means of aerobic batch experiments. Chemosphere, 2006, 62, 1431-1436.	8.2	30
54	The thermal decomposition of dimethoate. Journal of Hazardous Materials, 1999, 64, 283-294.	12.4	29

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55	Kinetic and chemical characterization of thermal decomposition of dicumylperoxide in cumene. Journal of Hazardous Materials, 2011, 187, 157-163.	12.4	29
56	Hydrogen production by photoreforming of formic acid in aqueous copper/TiO2 suspensions under UV-simulated solar radiation at room temperature. International Journal of Hydrogen Energy, 2013, 38, 9644-9654.	7.1	29
57	Removal of benzoylecgonine from water matrices through UV254/H2O2 process: Reaction kinetic modeling, ecotoxicity and genotoxicity assessment. Journal of Hazardous Materials, 2016, 318, 515-525.	12.4	29
58	Direct photolysis of benzoylecgonine under UV irradiation at 254nm in a continuous flow microcapillary array photoreactor. Chemical Engineering Journal, 2016, 283, 243-250.	12.7	29
59	N-methyl-p-aminophenol (metol) ozonation in aqueous solution: kinetics, mechanism and toxicological characterization of ozonized samples. Water Research, 2000, 34, 4419-4429.	11.3	28
60	Chronic toxicity of treated and untreated aqueous solutions containing imidazole-based ionic liquids and their oxydized by-products. Ecotoxicology and Environmental Safety, 2019, 180, 466-472.	6.0	28
61	Investigation on the removal of the major cocaine metabolite (benzoylecgonine) in water matrices by UV 254 /H 2 O 2 process by using a flow microcapillary film array photoreactor as an efficient experimental tool. Water Research, 2016, 89, 375-383.	11.3	25
62	Near UVâ€irradiation of CuO_xâ€impregnated TiO₂ Providing Active Species for H₂ Production Through Methanol Photoreforming. ChemCatChem, 2019, 11, 4314-4326.	3.7	25
63	Visible light â€“ driven photocatalytic hydrogen production using Cu2O/TiO2 composites prepared by facile mechanochemical synthesis. Journal of Environmental Chemical Engineering, 2022, 10, 107735.	6.7	23
64	Kinetics of Oxalic Acid Ozonation Promoted by Heterogeneous MnO2 Catalysis. Industrial & Engineering Chemistry Research, 1997, 36, 4774-4778.	3.7	22
65	Solar photocatalytic processes for treatment of soil washing wastewater. Chemical Engineering Journal, 2017, 318, 10-18.	12.7	21
66	Kinetic modeling of benzyl alcohol and/or benzaldehyde selective oxidation in water by means of TiO2/CuII/hÎ½ process. Chemical Engineering Journal, 2012, 209, 69-78.	12.7	20
67	Dicumyl Peroxide Thermal Decomposition in Cumene: Development of a Kinetic Model. Industrial & Engineering Chemistry Research, 2012, 51, 7493-7499.	3.7	20
68	Photocatalytic processes assisted by artificial solar light for soil washing effluent treatment. Environmental Science and Pollution Research, 2017, 24, 6353-6360.	5.3	19
69	Photocatalytic reforming of formic acid for hydrogen production in aqueous solutions containing cupric ions and TiO2 suspended nanoparticles under UV-simulated solar radiation. Applied Catalysis A: General, 2016, 518, 181-188.	4.3	18
70	Use of an amorphous iron oxide hydrated as catalyst for hydrogen peroxide oxidation of ferulic acid in water. Journal of Hazardous Materials, 2008, 152, 870-875.	12.4	17
71	Production of pyridinecarboxy aldehydes, nicotinic and isonicotinic and picolinic acids by TiO2-sacrificial photocatalysis at ambient conditions and in aqueous solution through artificial solar radiation. Applied Catalysis B: Environmental, 2015, 163, 248-257.	20.2	17
72	Selective photo-oxidation of ethanol to acetaldehyde and acetic acid in water in presence of TiO2 and cupric ions under UVâ€“simulated solar radiation. Chemical Engineering Journal, 2019, 361, 1524-1534.	12.7	17

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73	Microwave-assisted condensation of bio-based hydroxymethylfurfural and acetone over recyclable hydrotalcite-related materials. Applied Catalysis B: Environmental, 2021, 282, 119599.	20.2	17
74	Kinetic modeling of partial oxidation of benzyl alcohol in water by means of Fe(III)/O2/UVâ€“solar simulated process. Chemical Engineering Journal, 2014, 249, 130-142.	12.7	16
75	Hydrogen production upon UV-light irradiation of Cu/TiO2 photocatalyst in the presence of alkanol-amines. International Journal of Hydrogen Energy, 2020, 45, 26701-26715.	7.1	16
76	Thermal decomposition of acetic anhydrideâ€“nitric acid mixtures. Journal of Hazardous Materials, 2002, 90, 111-121.	12.4	15
77	Production of 5-hydroxy-4-keto-2-pentenoic acid by photo-oxidation of 5-hydroxymethylfurfural with singlet oxygen: A kinetic investigation. Journal of Photochemistry and Photobiology A: Chemistry, 2010, 210, 69-76.	3.9	15
78	Fe(iii)-photocatalytic partial oxidation of benzyl alcohol to benzaldehyde under UV-solar simulated radiation. Photochemical and Photobiological Sciences, 2013, 12, 1991.	2.9	15
79	Ultrafast photodegradation of isoxazole and isothiazolinones by UV254 and UV254/H2O2 photolysis in a microcapillary reactor. Water Research, 2020, 169, 115203.	11.3	15
80	Nitric acid decomposition kinetics in mixed acid and their use in the modeling of aromatic nitration. Chemical Engineering Journal, 2013, 228, 366-373.	12.7	14
81	Detailed thermal and kinetic modeling of cumene hydroperoxide decomposition in cumene. Chemical Engineering Research and Design, 2013, 91, 262-268.	5.6	14
82	Intensification of Nitrobenzaldehydes Synthesis from Benzyl Alcohol in a Microreactor. Organic Process Research and Development, 2017, 21, 357-364.	2.7	14
83	Assessment of optimal conditions for the restoration and recovery of agricultural soil. Journal of Hazardous Materials, 2019, 373, 801-809.	12.4	14
84	Photoactivated Fe(III)/Fe(II)/WO3â€“Pd fuel cell for electricity generation using synthetic and real effluents under visible light. Renewable Energy, 2020, 147, 1070-1081.	8.9	14
85	A kinetic study of the simultaneous removal of EDDS and cupric ions from acidic aqueous solutions by TiO2-based photocatalysis under artificial solar light irradiation and deaerated batch conditions. Chemical Engineering Journal, 2015, 270, 519-527.	12.7	13
86	Recovery of palladium (II) from aqueous solution through photocatalytic deposition in presence of ZnO under UV/Visible-light radiation. Journal of Environmental Chemical Engineering, 2021, 9, 106523.	6.7	13
87	Photochemical behaviour of musk tibetene. Environmental Science and Pollution Research, 2008, 15, 182-187.	5.3	12
88	Sacrificial photocatalysis: removal of nitrate and hydrogen production by nano-copper-loaded P25 titania. A kinetic and ecotoxicological assessment. Environmental Science and Pollution Research, 2017, 24, 5898-5907.	5.3	12
89	Benzaldehyde nitration by mixed acid under homogeneous condition: A kinetic modeling. Chemical Engineering Journal, 2017, 307, 1076-1083.	12.7	12
90	Efficient acetaldehyde production and recovery upon selective Cu/TiO2-photocatalytic oxidation of ethanol in aqueous solution. Chemical Engineering Journal, 2020, 393, 123425.	12.7	12

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91	Kinetic and Safety Characterization of the Nitration Process of Methyl Benzoate in Mixed Acid. Organic Process Research and Development, 2012, 16, 2001-2007.	2.7	11
92	An evaluation of the application of a TiO₂/ Cu(II)/solar simulated radiation system for selective oxidation of benzyl alcohol derivatives. Journal of Chemical Technology and Biotechnology, 2013, 88, 864-872.	3.2	11
93	Alkaline direct transesterification of different species of Stichococcus for bio-oil production. New Biotechnology, 2016, 33, 797-806.	4.4	10
94	Thermal decomposition of ethyl parathion. Journal of Loss Prevention in the Process Industries, 1999, 12, 315-319.	3.3	9
95	Modeling and validation of a modular multi-lamp photo-reactor for cetylpyridinium chloride degradation by UV and UV/H2O2 processes. Chemical Engineering Journal, 2019, 376, 120380.	12.7	9
96	Kinetic characterization of the photosynthetic reaction centres in microalgae by means of fluorescence methodology. Journal of Biotechnology, 2015, 212, 1-10.	3.8	8
97	Scenedesmus vacuolatus cultures for possible combined laccase-like phenoloxidase activity and biodiesel production. Annals of Microbiology, 2018, 68, 9-15.	2.6	7
98	(S)-Nitroxycarnitine nitrate production from (S)-carnitine by using acetic anhydride/nitric acid/acetic acid mixtures: safety assessment. Journal of Hazardous Materials, 2004, 113, 1-10.	12.4	5
99	The role of superficial radicals in the kinetic modeling of 3-pyridinemethanol and 3-pyridinecarboxyaldehyde selective oxidation to vitamin B3 in water by means of a TiO2/Cu(II)/UV-solar photocatalytic system. Chemical Engineering Journal, 2016, 283, 1176-1186.	12.7	5
100	Tuning crystal structure in a micro-scale reactive flow. Chemical Engineering Science, 2019, 207, 581-587.	3.8	5
101	Ternary HNO₃â€“H₂SO₄â€“H₂O Mixtures: A Simplified Approach for the Calculation of the Equilibrium Composition. Industrial & Engineering Chemistry Research, 2018, 57, 1696-1704.	3.7	3
102	Metal-based semiconductor nanomaterials for photocatalysis. , 2018, , 187-213.		3
103	LIGHT INTENSITIES MAXIMIZING PHOTOSYNTHESIS AND KINETICS OF PHOTOCHEMICAL STEPS IN Graesiella emersonii UNDER DIFFERENT CULTIVATION STRATEGIES. Environmental Engineering and Management Journal, 2019, 18, 1519-1526.	0.6	2
104	Removal of Organic Pollutants from Soil: The Ozonation of Clofibric Acid in Aqueous Slurries. Ozone: Science and Engineering, 2006, 28, 47-52.	2.5	1
105	A Kinetic Investigation on the Ozonation of Glycerol and its Oxygenated Derivatives. Ozone: Science and Engineering, 2009, 31, 445-453.	2.5	1