Gianluca Li Puma

List of Publications by Year
in descending order

106 papers	7,906 citations	44069 48 h-index	49909 87 g-index
111 all docs	111 docs citations	111 times ranked	8320 citing authors

#	Article	IF	Citations
1	The Technology Horizon for Photocatalytic Water Treatment: Sunrise or Sunset?. Environmental Science & Technology, 2019, 53, 2937-2947.	10.0	493
2	Preparation of titanium dioxide photocatalyst loaded onto activated carbon support using chemical vapor deposition: A review paper. Journal of Hazardous Materials, 2008, 157, 209-219.	12.4	385
3	Impact of water matrix on the removal of micropollutants by advanced oxidation technologies. Chemical Engineering Journal, 2019, 363, 155-173.	12.7	365
4	Sonophotocatalysis in advanced oxidation process: A short review. Ultrasonics Sonochemistry, 2009, 16, 583-589.	8.2	301
5	Solar Light-Responsive Pt/CdS/TiO₂ Photocatalysts for Hydrogen Production and Simultaneous Degradation of Inorganic or Organic Sacrificial Agents in Wastewater. Environmental Science & Technology, 2010, 44, 7200-7205.	10.0	300
6	Carbon nanotubes/titanium dioxide (CNTs/TiO2) nanocomposites prepared by conventional and novel surfactant wrapping solâ€“gel methods exhibiting enhanced photocatalytic activity. Applied Catalysis B: Environmental, 2009, 89, 503-509.	20.2	276
7	Treatment of winery wastewater by ozone-based advanced oxidation processes (O3, O3/UV and) Tj ETQq1 1 0.784314 rgBT /Overlock 1 Purification Technology, 2010, 72, 235-241.	7.9	276
8	Treatment of winery wastewater by physicochemical, biological and advanced processes: A review. Journal of Hazardous Materials, 2015, 286, 343-368.	12.4	212
9	Treatment of emerging contaminants in wastewater treatment plants (WWTP) effluents by solar photocatalysis using low TiO2 concentrations. Journal of Hazardous Materials, 2012, 211-212, 131-137.	12.4	199
10	Carbon nanotube/titanium dioxide (CNT/TiO2) coreâ€“shell nanocomposites with tailored shell thickness, CNT content and photocatalytic/photoelectrocatalytic properties. Applied Catalysis B: Environmental, 2011, 110, 50-57.	20.2	184
11	Photocatalytic oxidation of multicomponent mixtures of estrogens (estrone (E1), 17Î²-estradiol (E2),) Tj ETQq1 1 0.784314 rgBT /Overlock 1 yields and rate constants independent of photon absorption. Applied Catalysis B: Environmental, 2010, 99, 388-397.	20.2	157
12	Disinfection of urban wastewater by solar driven and UV lamp â€“ TiO2 photocatalysis: Effect on a multi drug resistant Escherichia coli strain. Water Research, 2014, 53, 145-152.	11.3	149
13	Radiation Absorption and Optimization of Solar Photocatalytic Reactors for Environmental Applications. Environmental Science & Technology, 2010, 44, 5112-5120.	10.0	146
14	TiO2 photocatalyst for indoor air remediation: Influence of crystallinity, crystal phase, and UV radiation intensity on trichloroethylene degradation. Applied Catalysis B: Environmental, 2010, 94, 211-218.	20.2	145
15	Dimensionless analysis of slurry photocatalytic reactors using two-flux and six-flux radiation absorptionâ€“scattering models. Catalysis Today, 2007, 122, 78-90.	4.4	141
16	Photo-electro-catalysis enhancement on carbon nanotubes/titanium dioxide (CNTs/TiO2) composite prepared by a novel surfactant wrapping solâ€“gel method. Applied Catalysis B: Environmental, 2008, 85, 17-23.	20.2	139
17	One-step, hydrothermal synthesis of nitrogen, carbon co-doped titanium dioxide (N,CTiO2) photocatalysts. Effect of alcohol degree and chain length as carbon dopant precursors on photocatalytic activity and catalyst deactivation. Applied Catalysis B: Environmental, 2012, 115-116, 81-89.	20.2	138
18	Enhancement of photocatalytic oxidation of oxalic acid by gold modified WO3/TiO2 photocatalysts under UV and visible light irradiation. Journal of Molecular Catalysis A, 2010, 327, 51-57.	4.8	131

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19	Novel one step hydrothermal synthesis of TiO2/WO3 nanocomposites with enhanced photocatalytic activity. Chemical Communications, 2007, , 4749.	4.1	114
20	Effect of key parameters on the photocatalytic oxidation of toluene at low concentrations in air under 254+185nm UV irradiation. Applied Catalysis B: Environmental, 2010, 95, 312-319.	20.2	107
21	Boron doped TiO2 catalysts for photocatalytic ozonation of aqueous mixtures of common pesticides: Diuron, o-phenylphenol, MCPA and terbuthylazine. Applied Catalysis B: Environmental, 2015, 178, 74-81.	20.2	103
22	Photocatalytic oxidation of multicomponent solutions of herbicides: Reaction kinetics analysis with explicit photon absorption effects. Applied Catalysis B: Environmental, 2006, 68, 171-180.	20.2	95
23	Evaluation of the Intrinsic Photocatalytic Oxidation Kinetics of Indoor Air Pollutants. Environmental Science & Technology, 2007, 41, 2028-2035.	10.0	94
24	Engineering and modeling perspectives on photocatalytic reactors for water treatment. Water Research, 2021, 202, 117421.	11.3	94
25	Modeling of an Annular Photocatalytic Reactor for Water Purification:Â Oxidation of Pesticides. Environmental Science & Technology, 2004, 38, 3737-3745.	10.0	93
26	Photocatalytic Mineralization of Commercial Herbicides in a Pilot-Scale Solar CPC Reactor: Photoreactor Modeling and Reaction Kinetics Constants Independent of Radiation Field. Environmental Science & Technology, 2009, 43, 8953-8960.	10.0	93
27	Impact of Fe(III) as an effective electron-shuttle mediator for enhanced Cr(VI) reduction in microbial fuel cells: Reduction of diffusional resistances and cathode overpotentials. Journal of Hazardous Materials, 2017, 321, 896-906.	12.4	89
28	Ozonation kinetics of winery wastewater in a pilot-scale bubble column reactor. Water Research, 2009, 43, 1523-1532.	11.3	81
29	Treatment of winery wastewater by sulphate radicals: HSO 5 â˜ /transition metal/UV-A LEDs. Chemical Engineering Journal, 2017, 310, 473-483.	12.7	79
30	Photoelectrochemical cell for simultaneous electricity generation and heavy metals recovery from wastewater. Journal of Hazardous Materials, 2017, 323, 681-689.	12.4	72
31	Modeling of Thin-Film Slurry Photocatalytic Reactors Affected by Radiation Scattering. Environmental Science & Technology, 2003, 37, 5783-5791.	10.0	70
32	Photocatalytic oxidation of herbicides in single-component and multicomponent systems: Reaction kinetics analysis. Applied Catalysis B: Environmental, 2006, 65, 1-10.	20.2	70
33	Modelling and design of thin-film slurry photocatalytic reactors for water purification. Chemical Engineering Science, 2003, 58, 2269-2281.	3.8	69
34	Operating parameters and synergistic effects of combining ultrasound and ultraviolet irradiation in the degradation of 2,4,6-trichlorophenol. Desalination, 2011, 276, 303-309.	8.2	69
35	Acetate production from inorganic carbon (HCO3-) in photo-assisted biocathode microbial electrosynthesis systems using WO3/MoO3/g-C3N4 heterojunctions and Serratia marcescens species. Applied Catalysis B: Environmental, 2020, 267, 118611.	20.2	69
36	Electricity generation and bivalent copper reduction as a function of operation time and cathode electrode material in microbial fuel cells. Journal of Power Sources, 2016, 307, 705-714.	7.8	68

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37	Sequential anaerobic and electro-Fenton processes mediated by W and Mo oxides for degradation/mineralization of azo dye methyl orange in photo assisted microbial fuel cells. Applied Catalysis B: Environmental, 2019, 245, 672-680.	20.2	68
38	Six-flux absorption-scattering models for photocatalysis under wide-spectrum irradiation sources in annular and flat reactors using catalysts with different optical properties. Applied Catalysis B: Environmental, 2017, 211, 222-234.	20.2	67
39	Effective quantum yield and reaction rate model for evaluation of photocatalytic degradation of water contaminants in heterogeneous pilot-scale solar photoreactors. Chemical Engineering Journal, 2013, 215-216, 937-947.	12.7	64
40	Photocatalytic Degradation of Water Contaminants in Multiple Photoreactors and Evaluation of Reaction Kinetic Constants Independent of Photon Absorption, Irradiance, Reactor Geometry, and Hydrodynamics. Environmental Science & Technology, 2013, 47, 13702-13711.	10.0	64
41	Correlation between circuital current, Cu(II) reduction and cellular electron transfer in EAB isolated from Cu(II)-reduced biocathodes of microbial fuel cells. Bioelectrochemistry, 2017, 114, 1-7.	4.6	64
42	Impact of photocatalyst optical properties on the efficiency of solar photocatalytic reactors rationalized by the concepts of initial rate of photon absorption (IRPA) dimensionless boundary layer of photon absorption and apparent optical thickness. Chemical Engineering Journal, 2019, 356, 839-849.	12.7	63
43	Radiation field modeling and optimization of a compact and modular multi-plate photocatalytic reactor (MPPR) for air/water purification by Monte Carlo method. Chemical Engineering Journal, 2013, 217, 475-485.	12.7	56
44	Two-Dimensional Modeling of a Flat-Plate Photocatalytic Reactor for Oxidation of Indoor Air Pollutants. Industrial & Engineering Chemistry Research, 2007, 46, 7489-7496.	3.7	55
45	Novel pebble bed photocatalytic reactor for solar treatment of textile wastewater. Chemical Engineering Journal, 2012, 184, 90-97.	12.7	55
46	Mechanism and experimental study on the photocatalytic performance of Ag/AgCl @ chiral TiO2 nanofibers photocatalyst: The impact of wastewater components. Journal of Hazardous Materials, 2015, 285, 277-284.	12.4	52
47	Novel sea buckthorn biocarbon SBC@Î²-FeOOH composites: Efficient removal of doxycycline in aqueous solution in a fixed-bed through synergistic adsorption and heterogeneous Fenton-like reaction. Chemical Engineering Journal, 2016, 284, 698-707.	12.7	51
48	Photodegradation and ecotoxicology of acyclovir in water under UV254 and UV254/H2O2 processes. Water Research, 2017, 122, 591-602.	11.3	50
49	Ag/AgCl@helical chiral TiO2 nanofibers as a visible-light driven plasmon photocatalyst. Chemical Communications, 2013, 49, 10367-10369.	4.1	49
50	A laminar falling film slurry photocatalytic reactor. Part Iâ€"model development. Chemical Engineering Science, 1998, 53, 2993-3006.	3.8	48
51	Dimensionless Analysis of Photocatalytic Reactors Using Suspended Solid Photocatalysts. Chemical Engineering Research and Design, 2005, 83, 820-826.	5.6	48
52	A novel fountain photocatalytic reactor: model development and experimental validation. Chemical Engineering Science, 2001, 56, 2733-2744.	3.8	47
53	Ozonation kinetics of cork-processing water in a bubble column reactor. Water Research, 2008, 42, 2473-2482.	11.3	47
54	Modelling the photo-Fenton oxidation of the pharmaceutical paracetamol in water including the effect of photon absorption (VRPA). Applied Catalysis B: Environmental, 2015, 166-167, 295-301.	20.2	47

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55	Inactivation of pathogenic microorganisms in freshwater using HSO5â¯/UV-A LED and HSO5â¯/Mn+/UV-A LED oxidation processes. Water Research, 2017, 123, 113-123.	11.3	47
56	Kinetics rate model of the photocatalytic oxidation of trichloroethylene in air over TiO2 thin films. Separation and Purification Technology, 2009, 67, 226-232.	7.9	46
57	Radiation field optimization in photocatalytic monolith reactors for air treatment. AICHE Journal, 2007, 53, 678-686.	3.6	45
58	Coupling the Six Flux Absorptionâ€“Scattering Model to the Henyeyâ€“Greenstein scattering phase function: Evaluation and optimization of radiation absorption in solar heterogeneous photoreactors. Chemical Engineering Journal, 2016, 302, 86-96.	12.7	43
59	A Novel Prototype Offset Multi Tubular Photoreactor (OMTP) for solar photocatalytic degradation of water contaminants. Chemical Engineering Journal, 2018, 341, 628-638.	12.7	42
60	Photocatalytic oxidation of multicomponent systems of herbicides: Scale-up of laboratory kinetics rate data to plant scale. Catalysis Today, 2007, 124, 124-132.	4.4	41
61	Novel one step fabrication of raspberry-like TiO2@yeast hybrid microspheres via electrostatic-interaction-driven self-assembled heterocoagulation for environmental applications. Chemical Engineering Journal, 2011, 170, 451-456.	12.7	39
62	A novel microfluidic approach for extremely fast and efficient photochemical transformations in fluoropolymer microcapillary films. Chemical Communications, 2015, 51, 8414-8417.	4.1	38
63	Intensified degradation and mineralization of antibiotic metronidazole in photo-assisted microbial fuel cells with Mo-W catalytic cathodes under anaerobic or aerobic conditions in the presence of Fe(III). Chemical Engineering Journal, 2019, 376, 119566.	12.7	37
64	Comparison of the Effectiveness of Photon-Based Oxidation Processes in a Pilot Falling Film Photoreactor. Environmental Science & Technology, 1999, 33, 3210-3216.	10.0	36
65	Efficient W and Mo deposition and separation with simultaneous hydrogen production in stacked bioelectrochemical systems. Chemical Engineering Journal, 2017, 327, 584-596.	12.7	35
66	Highly efficient magnetically separable TiO2â€“graphene oxide supported SrFe12O19 for direct sunlight-driven photoactivity. Chemical Engineering Journal, 2014, 235, 264-274.	12.7	34
67	Photocatalytic oxidation of 2,4,6-trinitrotoluene in the presence of ozone under irradiation with UV and visible light. Journal of Photochemistry and Photobiology A: Chemistry, 2012, 231, 1-8.	3.9	33
68	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
69	A laminar falling film slurry photocatalytic reactor. Part IIâ€”experimental validation of the model. Chemical Engineering Science, 1998, 53, 3007-3021.	3.8	31
70	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
71	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
72	Effective radiation field model to scattering â€“ Absorption applied in heterogeneous photocatalytic reactors. Chemical Engineering Journal, 2015, 279, 442-451.	12.7	28

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73	Intensification of ozonation processes in a novel, compact, multi-orifice oscillatory baffled column. Chemical Engineering Journal, 2016, 296, 335-339.	12.7	28
74	Bio-template route for facile fabrication of Cd(OH)2@yeast hybrid microspheres and their subsequent conversion to mesoporous CdO hollow microspheres. Materials Research Bulletin, 2011, 46, 26-31.	5.2	27
75	Reduction of Cu(II) and simultaneous production of acetate from inorganic carbon by Serratia Marcescens biofilms and plankton cells in microbial electrosynthesis systems. Science of the Total Environment, 2019, 666, 114-125.	8.0	26
76	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
77	Dye-sensitized photoelectrochemical cell on plasmonic Ag/AgCl @ chiral TiO 2 nanofibers for treatment of urban wastewater effluents, with simultaneous production of hydrogen and electricity. Applied Catalysis B: Environmental, 2015, 168-169, 25-32.	20.2	24
78	Adsorption of arsenate, phosphate and humic acids onto acicular goethite nanoparticles recovered from acid mine drainage. Journal of Environmental Chemical Engineering, 2017, 5, 652-659.	6.7	24
79	Electrosynthesis of acetate from inorganic carbon (HCO3âˆ') with simultaneous hydrogen production and Cd(II) removal in multifunctional microbial electrosynthesis systems (MES). Journal of Hazardous Materials, 2019, 371, 463-473.	12.4	24
80	The modeling of a fountain photocatalytic reactor with a parabolic profile. Chemical Engineering Science, 2001, 56, 721-726.	3.8	23
81	Self-Assembled Au/TiO₂/CNTs Ternary Nanocomposites for Photocatalytic Applications. Science of Advanced Materials, 2010, 2, 503-513.	0.7	23
82	Photocatalytic mineralization and degradation kinetics of sulphamethoxazole and reactive red 194 over silver-zirconium co-doped titanium dioxide: Reaction mechanisms and phytotoxicity assessment. Ecotoxicology and Environmental Safety, 2018, 159, 301-309.	6.0	22
83	Humic acids adsorption and decomposition on Mn2O3 and Î±-Al2O3 nanoparticles in aqueous suspensions in the presence of ozone. Journal of Environmental Chemical Engineering, 2020, 8, 102780.	6.7	22
84	Multiphysics Computational Fluid-Dynamics (CFD) Modeling of Annular Photocatalytic Reactors by the Discrete Ordinates Method (DOM) and the Six-Flux Model (SFM) and Evaluation of the Contaminant Intrinsic Kinetics Constants. Catalysis Today, 2021, 361, 77-84.	4.4	22
85	Novel integrated reactor for evaluation of activity of supported photocatalytic thin films: Case of methylene blue degradation on TiO2 and nickel modified TiO2 under UV and visible light. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 382, 219-225.	4.7	21
86	Photocatalytic degradation of cationic dye simulated wastewater using four radiation sources, UVA, UVB, UVC and solar lamp of identical power output. Desalination and Water Treatment, 2016, 57, 7976-7987.	1.0	21
87	Preparation, characterisation and solar photoactivity of titania supported strontium ferrite nanocomposite photocatalyst. Journal of Experimental Nanoscience, 2013, 8, 295-310.	2.4	19
88	Modeling the Photocatalytic Mineralization in Water of Commercial Formulation of Estrogens 17-Î²Estradiol (E2) and Nomegestrol Acetate in Contraceptive Pills in a Solar Powered Compound Parabolic Collector. Molecules, 2015, 20, 13354-13373.	3.8	19
89	Correlating the photocatalytic activity and the optical properties of LiVMoO6 photocatalyst under the UV and the visible region of the solar radiation spectrum. Chemical Engineering Journal, 2015, 262, 1284-1291.	12.7	18
90	Biosorption of azo dyes by raspberry-like Fe3O4@yeast magnetic microspheres and their efficient regeneration using heterogeneous Fenton-like catalytic processes over an up-flow packed reactor. Reaction Kinetics, Mechanisms and Catalysis, 2015, 115, 547-562.	1.7	17

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91	AOPs: recent advances to overcome barriers in the treatment of water, wastewater and air. Environmental Science and Pollution Research, 2017, 24, 5987-5990.	5.3	15
92	Synthesis of Mg-Al layered double hydroxides by electrocoagulation. MethodsX, 2018, 5, 915-923.	1.6	15
93	Ultrafast photodegradation of isoxazole and isothiazolinones by UV254 and UV254/H2O2 photolysis in a microcapillary reactor. Water Research, 2020, 169, 115203.	11.3	15
94	Modulating the photocatalytic activity of TiO2 (P25) with lanthanum and graphene oxide. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 372, 1-10.	3.9	14
95	Staphylococcus aureus resists UVA at low irradiance but succumbs in the presence of TiO2 photocatalytic coatings. Journal of Photochemistry and Photobiology B: Biology, 2019, 193, 131-139.	3.8	13
96	Nanotechnologies for the treatment of water, air and soil. Journal of Hazardous Materials, 2012, 211-212, 1-2.	12.4	11
97	Treatment of aqueous solutions of 1,4-dioxane by ozonation and catalytic ozonation with copper oxide (CuO). Environmental Technology (United Kingdom), 2020, 41, 1464-1476.	2.2	11
98	Sonolysis, Photolysis, and Sequential Sonophotolysis for the Degradation of 2,4,6-Trichlorophenol: The Effect of Solution Concentration. Chemical Engineering Communications, 2015, 202, 1061-1068.	2.6	9
99	Deposition and separation of W and Mo from aqueous solutions with simultaneous hydrogen production in stacked bioelectrochemical systems (BESs): Impact of heavy metals W(VI)/Mo(VI) molar ratio, initial pH and electrode material. Journal of Hazardous Materials, 2018, 353, 348-359.	12.4	9
100	Nanostructured catalysts for photo-oxidation of endocrine disrupting chemicals. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 364, 274-281.	3.9	9
101	Catalytic processes and new materials and technologies in water/wastewater treatment. Water Research, 2015, 86, 1.	11.3	7
102	Photo inactivation of virus particles in microfluidic capillary systems. Biotechnology and Bioengineering, 2016, 113, 1481-1492.	3.3	7
103	Photocatalysis: From the treatment of emerging contaminants to energy conversion. Journal of Hazardous Materials, 2013, 263, 1.	12.4	6
104	Future Trends in Photocatalysis for Environmental Applications. Journal of Hazardous Materials, 2019, 372, 1-2.	12.4	6
105	Advanced Oxidation Processes for Water and Wastewater Treatment. Water (Switzerland), 2021, 13, 1309.	2.7	4
106	Photo(Catalytic) Oxidation Processes for the Removal of Natural Organic Matter and Contaminants of Emerging Concern from Water. Handbook of Environmental Chemistry, 2018, , 133-154.	0.4	2