

Gianluca Li Puma

List of Publications by Year in descending order

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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	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. <i>Catalysis Today</i> , 2021, 361, 77-84.	4.4	22
2	Advanced Oxidation Processes for Water and Wastewater Treatment. <i>Water (Switzerland)</i> , 2021, 13, 1309.	2.7	4
3	Engineering and modeling perspectives on photocatalytic reactors for water treatment. <i>Water Research</i> , 2021, 202, 117421.	11.3	94
4	Humic acids adsorption and decomposition on Mn ₂ O ₃ and γ -Al ₂ O ₃ nanoparticles in aqueous suspensions in the presence of ozone. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 102780.	6.7	22
5	Treatment of aqueous solutions of 1,4-dioxane by ozonation and catalytic ozonation with copper oxide (CuO). <i>Environmental Technology (United Kingdom)</i> , 2020, 41, 1464-1476.	2.2	11
6	Ultrafast photodegradation of isoxazole and isothiazolinones by UV254 and UV254/H ₂ O ₂ photolysis in a microcapillary reactor. <i>Water Research</i> , 2020, 169, 115203.	11.3	15
7	Acetate production from inorganic carbon (HCO ₃ ⁻) in photo-assisted biocathode microbial electrosynthesis systems using WO ₃ /MoO ₃ /g-C ₃ N ₄ heterojunctions and <i>Serratia marcescens</i> species. <i>Applied Catalysis B: Environmental</i> , 2020, 267, 118611.	20.2	69
8	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). <i>Chemical Engineering Journal</i> , 2019, 376, 119566.	12.7	37
9	Impact of water matrix on the removal of micropollutants by advanced oxidation technologies. <i>Chemical Engineering Journal</i> , 2019, 363, 155-173.	12.7	365
10	Future Trends in Photocatalysis for Environmental Applications. <i>Journal of Hazardous Materials</i> , 2019, 372, 1-2.	12.4	6
11	<i>Staphylococcus aureus</i> resists UVA at low irradiance but succumbs in the presence of TiO ₂ photocatalytic coatings. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2019, 193, 131-139.	3.8	13
12	Electrosynthesis of acetate from inorganic carbon (HCO ₃ ²⁻) with simultaneous hydrogen production and Cd(II) removal in multifunctional microbial electrosynthesis systems (MES). <i>Journal of Hazardous Materials</i> , 2019, 371, 463-473.	12.4	24
13	Reduction of Cu(II) and simultaneous production of acetate from inorganic carbon by <i>Serratia Marcescens</i> biofilms and plankton cells in microbial electrosynthesis systems. <i>Science of the Total Environment</i> , 2019, 666, 114-125.	8.0	26
14	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. <i>Chemical Engineering Journal</i> , 2019, 356, 839-849.	12.7	63
15	The Technology Horizon for Photocatalytic Water Treatment: Sunrise or Sunset?. <i>Environmental Science & Technology</i> , 2019, 53, 2937-2947.	10.0	493
16	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. <i>Applied Catalysis B: Environmental</i> , 2019, 245, 672-680.	20.2	68
17	Modulating the photocatalytic activity of TiO ₂ (P25) with lanthanum and graphene oxide. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2019, 372, 1-10.	3.9	14
18	Photo(Catalytic) Oxidation Processes for the Removal of Natural Organic Matter and Contaminants of Emerging Concern from Water. <i>Handbook of Environmental Chemistry</i> , 2018, , 133-154.	0.4	2

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19	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. <i>Journal of Hazardous Materials</i> , 2018, 353, 348-359.	12.4	9
20	Removal of antiretroviral drugs stavudine and zidovudine in water under UV254 and UV254/H ₂ O ₂ processes: Quantum yields, kinetics and ecotoxicology assessment. <i>Journal of Hazardous Materials</i> , 2018, 349, 195-204.	12.4	33
21	A Novel Prototype Offset Multi Tubular Photoreactor (OMTP) for solar photocatalytic degradation of water contaminants. <i>Chemical Engineering Journal</i> , 2018, 341, 628-638.	12.7	42
22	Photocatalytic mineralization and degradation kinetics of sulphamethoxazole and reactive red 194 over silver-zirconium co-doped titanium dioxide: Reaction mechanisms and phytotoxicity assessment. <i>Ecotoxicology and Environmental Safety</i> , 2018, 159, 301-309.	6.0	22
23	Synthesis of Mg-Al layered double hydroxides by electrocoagulation. <i>MethodsX</i> , 2018, 5, 915-923.	1.6	15
24	Nanostructured catalysts for photo-oxidation of endocrine disrupting chemicals. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2018, 364, 274-281.	3.9	9
25	Treatment of winery wastewater by sulphate radicals: HSO ₅ ^{•-} /transition metal/UV-A LEDs. <i>Chemical Engineering Journal</i> , 2017, 310, 473-483.	12.7	79
26	Adsorption of arsenate, phosphate and humic acids onto acicular goethite nanoparticles recovered from acid mine drainage. <i>Journal of Environmental Chemical Engineering</i> , 2017, 5, 652-659.	6.7	24
27	Six-flux absorption-scattering models for photocatalysis under wide-spectrum irradiation sources in annular and flat reactors using catalysts with different optical properties. <i>Applied Catalysis B: Environmental</i> , 2017, 211, 222-234.	20.2	67
28	AOPs: recent advances to overcome barriers in the treatment of water, wastewater and air. <i>Environmental Science and Pollution Research</i> , 2017, 24, 5987-5990.	5.3	15
29	Photodegradation and ecotoxicology of acyclovir in water under UV254 and UV254/H ₂ O ₂ processes. <i>Water Research</i> , 2017, 122, 591-602.	11.3	50
30	Inactivation of pathogenic microorganisms in freshwater using HSO ₅ ^{•-} /UV-A LED and HSO ₅ ^{•-} /Mn ⁺ /UV-A LED oxidation processes. <i>Water Research</i> , 2017, 123, 113-123.	11.3	47
31	Efficient W and Mo deposition and separation with simultaneous hydrogen production in stacked bioelectrochemical systems. <i>Chemical Engineering Journal</i> , 2017, 327, 584-596.	12.7	35
32	Correlation between circuit current, Cu(II) reduction and cellular electron transfer in EAB isolated from Cu(II)-reduced biocathodes of microbial fuel cells. <i>Bioelectrochemistry</i> , 2017, 114, 1-7.	4.6	64
33	Photoelectrochemical cell for simultaneous electricity generation and heavy metals recovery from wastewater. <i>Journal of Hazardous Materials</i> , 2017, 323, 681-689.	12.4	72
34	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. <i>Journal of Hazardous Materials</i> , 2017, 321, 896-906.	12.4	89
35	Photo inactivation of virus particles in microfluidic capillary systems. <i>Biotechnology and Bioengineering</i> , 2016, 113, 1481-1492.	3.3	7
36	Intensification of ozonation processes in a novel, compact, multi-orifice oscillatory baffled column. <i>Chemical Engineering Journal</i> , 2016, 296, 335-339.	12.7	28

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37	Coupling the Six Flux Absorption-Scattering Model to the Henyey-Greenstein scattering phase function: Evaluation and optimization of radiation absorption in solar heterogeneous photoreactors. <i>Chemical Engineering Journal</i> , 2016, 302, 86-96.	12.7	43
38	Removal of benzoylecgonine from water matrices through UV254/H ₂ O ₂ process: Reaction kinetic modeling, ecotoxicity and genotoxicity assessment. <i>Journal of Hazardous Materials</i> , 2016, 318, 515-525.	12.4	29
39	Electricity generation and bivalent copper reduction as a function of operation time and cathode electrode material in microbial fuel cells. <i>Journal of Power Sources</i> , 2016, 307, 705-714.	7.8	68
40	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. <i>Water Research</i> , 2016, 89, 375-383.	11.3	25
41	Direct photolysis of benzoylecgonine under UV irradiation at 254nm in a continuous flow microcapillary array photoreactor. <i>Chemical Engineering Journal</i> , 2016, 283, 243-250.	12.7	29
42	Novel sea buckthorn biocarbon SBC@ ¹² -FeOOH composites: Efficient removal of doxycycline in aqueous solution in a fixed-bed through synergistic adsorption and heterogeneous Fenton-like reaction. <i>Chemical Engineering Journal</i> , 2016, 284, 698-707.	12.7	51
43	Photocatalytic degradation of cationic dye simulated wastewater using four radiation sources, UVA, UVB, UVC and solar lamp of identical power output. <i>Desalination and Water Treatment</i> , 2016, 57, 7976-7987.	1.0	21
44	Catalytic processes and new materials and technologies in water/wastewater treatment. <i>Water Research</i> , 2015, 86, 1.	11.3	7
45	Modeling the Photocatalytic Mineralization in Water of Commercial Formulation of Estrogens 17- ¹² Estradiol (E2) and Norethisterone Acetate in Contraceptive Pills in a Solar Powered Compound Parabolic Collector. <i>Molecules</i> , 2015, 20, 13354-13373.	3.8	19
46	Effective radiation field model to scattering - Absorption applied in heterogeneous photocatalytic reactors. <i>Chemical Engineering Journal</i> , 2015, 279, 442-451.	12.7	28
47	A novel microfluidic approach for extremely fast and efficient photochemical transformations in fluoropolymer microcapillary films. <i>Chemical Communications</i> , 2015, 51, 8414-8417.	4.1	38
48	Treatment of winery wastewater by physicochemical, biological and advanced processes: A review. <i>Journal of Hazardous Materials</i> , 2015, 286, 343-368.	12.4	212
49	Correlating the photocatalytic activity and the optical properties of LiVMoO ₆ photocatalyst under the UV and the visible region of the solar radiation spectrum. <i>Chemical Engineering Journal</i> , 2015, 262, 1284-1291.	12.7	18
50	Sonolysis, Photolysis, and Sequential Sonophotolysis for the Degradation of 2,4,6-Trichlorophenol: The Effect of Solution Concentration. <i>Chemical Engineering Communications</i> , 2015, 202, 1061-1068.	2.6	9
51	Biosorption of azo dyes by raspberry-like Fe ₃ O ₄ @yeast magnetic microspheres and their efficient regeneration using heterogeneous Fenton-like catalytic processes over an up-flow packed reactor. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2015, 115, 547-562.	1.7	17
52	Mechanism and experimental study on the photocatalytic performance of Ag/AgCl @ chiral TiO ₂ nanofibers photocatalyst: The impact of wastewater components. <i>Journal of Hazardous Materials</i> , 2015, 285, 277-284.	12.4	52
53	Boron doped TiO ₂ catalysts for photocatalytic ozonation of aqueous mixtures of common pesticides: Diuron, o-phenylphenol, MCPA and terbuthylazine. <i>Applied Catalysis B: Environmental</i> , 2015, 178, 74-81.	20.2	103
54	Modelling the photo-Fenton oxidation of the pharmaceutical paracetamol in water including the effect of photon absorption (VRPA). <i>Applied Catalysis B: Environmental</i> , 2015, 166-167, 295-301.	20.2	47

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55	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. <i>Applied Catalysis B: Environmental</i> , 2015, 168-169, 25-32.	20.2	24
56	Highly efficient magnetically separable TiO ₂ @graphene oxide supported SrFe ₂ O ₉ for direct sunlight-driven photoactivity. <i>Chemical Engineering Journal</i> , 2014, 235, 264-274.	12.7	34
57	Disinfection of urban wastewater by solar driven and UV lamp @ TiO ₂ photocatalysis: Effect on a multi drug resistant <i>Escherichia coli</i> strain. <i>Water Research</i> , 2014, 53, 145-152.	11.3	149
58	Ag/AgCl@helical chiral TiO ₂ nanofibers as a visible-light driven plasmon photocatalyst. <i>Chemical Communications</i> , 2013, 49, 10367-10369.	4.1	49
59	Photocatalysis: From the treatment of emerging contaminants to energy conversion. <i>Journal of Hazardous Materials</i> , 2013, 263, 1.	12.4	6
60	Radiation field modeling and optimization of a compact and modular multi-plate photocatalytic reactor (MPPR) for air/water purification by Monte Carlo method. <i>Chemical Engineering Journal</i> , 2013, 217, 475-485.	12.7	56
61	Effective quantum yield and reaction rate model for evaluation of photocatalytic degradation of water contaminants in heterogeneous pilot-scale solar photoreactors. <i>Chemical Engineering Journal</i> , 2013, 215-216, 937-947.	12.7	64
62	Photocatalytic Degradation of Water Contaminants in Multiple Photoreactors and Evaluation of Reaction Kinetic Constants Independent of Photon Absorption, Irradiance, Reactor Geometry, and Hydrodynamics. <i>Environmental Science & Technology</i> , 2013, 47, 13702-13711.	10.0	64
63	Preparation, characterisation and solar photoactivity of titania supported strontium ferrite nanocomposite photocatalyst. <i>Journal of Experimental Nanoscience</i> , 2013, 8, 295-310.	2.4	19
64	Novel pebble bed photocatalytic reactor for solar treatment of textile wastewater. <i>Chemical Engineering Journal</i> , 2012, 184, 90-97.	12.7	55
65	One-step, hydrothermal synthesis of nitrogen, carbon co-doped titanium dioxide (N,C-TiO ₂) photocatalysts. Effect of alcohol degree and chain length as carbon dopant precursors on photocatalytic activity and catalyst deactivation. <i>Applied Catalysis B: Environmental</i> , 2012, 115-116, 81-89.	20.2	138
66	Photocatalytic oxidation of 2,4,6-trinitrotoluene in the presence of ozone under irradiation with UV and visible light. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2012, 231, 1-8.	3.9	33
67	Treatment of emerging contaminants in wastewater treatment plants (WWTP) effluents by solar photocatalysis using low TiO ₂ concentrations. <i>Journal of Hazardous Materials</i> , 2012, 211-212, 131-137.	12.4	199
68	Nanotechnologies for the treatment of water, air and soil. <i>Journal of Hazardous Materials</i> , 2012, 211-212, 1-2.	12.4	11
69	Bio-template route for facile fabrication of Cd(OH) ₂ @yeast hybrid microspheres and their subsequent conversion to mesoporous CdO hollow microspheres. <i>Materials Research Bulletin</i> , 2011, 46, 26-31.	5.2	27
70	Carbon nanotube/titanium dioxide (CNT/TiO ₂) core-shell nanocomposites with tailored shell thickness, CNT content and photocatalytic/photoelectrocatalytic properties. <i>Applied Catalysis B: Environmental</i> , 2011, 110, 50-57.	20.2	184
71	Novel one step fabrication of raspberry-like TiO ₂ @yeast hybrid microspheres via electrostatic-interaction-driven self-assembled heterocoagulation for environmental applications. <i>Chemical Engineering Journal</i> , 2011, 170, 451-456.	12.7	39
72	Novel integrated reactor for evaluation of activity of supported photocatalytic thin films: Case of methylene blue degradation on TiO ₂ and nickel modified TiO ₂ under UV and visible light. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 382, 219-225.	4.7	21

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73	Operating parameters and synergistic effects of combining ultrasound and ultraviolet irradiation in the degradation of 2,4,6-trichlorophenol. <i>Desalination</i> , 2011, 276, 303-309.	8.2	69
74	Effect of key parameters on the photocatalytic oxidation of toluene at low concentrations in air under 254+185nm UV irradiation. <i>Applied Catalysis B: Environmental</i> , 2010, 95, 312-319.	20.2	107
75	Treatment of winery wastewater by ozone-based advanced oxidation processes (O ₃ , O ₃ /UV and) Tj ETQq1 1 0.784314 rgBT /Overlock Purification Technology, 2010, 72, 235-241.	7.9	276
76	Enhancement of photocatalytic oxidation of oxalic acid by gold modified WO ₃ /TiO ₂ photocatalysts under UV and visible light irradiation. <i>Journal of Molecular Catalysis A</i> , 2010, 327, 51-57.	4.8	131
77	TiO ₂ photocatalyst for indoor air remediation: Influence of crystallinity, crystal phase, and UV radiation intensity on trichloroethylene degradation. <i>Applied Catalysis B: Environmental</i> , 2010, 94, 211-218.	20.2	145
78	Photocatalytic oxidation of multicomponent mixtures of estrogens (estrone (E1), 17 β -estradiol (E2),) Tj ETQq0 0 0 rgBT /Overlock 10 Tf yields and rate constants independent of photon absorption. <i>Applied Catalysis B: Environmental</i> , 2010, 99, 388-397.	20.2	157
79	Radiation Absorption and Optimization of Solar Photocatalytic Reactors for Environmental Applications. <i>Environmental Science & Technology</i> , 2010, 44, 5112-5120.	10.0	146
80	Solar Light-Responsive Pt/CdS/TiO ₂ Photocatalysts for Hydrogen Production and Simultaneous Degradation of Inorganic or Organic Sacrificial Agents in Wastewater. <i>Environmental Science & Technology</i> , 2010, 44, 7200-7205.	10.0	300
81	Self-Assembled Au/TiO ₂ /CNTs Ternary Nanocomposites for Photocatalytic Applications. <i>Science of Advanced Materials</i> , 2010, 2, 503-513.	0.7	23
82	Kinetics rate model of the photocatalytic oxidation of trichloroethylene in air over TiO ₂ thin films. <i>Separation and Purification Technology</i> , 2009, 67, 226-232.	7.9	46
83	Sonophotocatalysis in advanced oxidation process: A short review. <i>Ultrasonics Sonochemistry</i> , 2009, 16, 583-589.	8.2	301
84	Carbon nanotubes/titanium dioxide (CNTs/TiO ₂) nanocomposites prepared by conventional and novel surfactant wrapping sol-gel methods exhibiting enhanced photocatalytic activity. <i>Applied Catalysis B: Environmental</i> , 2009, 89, 503-509.	20.2	276
85	Ozonation kinetics of winery wastewater in a pilot-scale bubble column reactor. <i>Water Research</i> , 2009, 43, 1523-1532.	11.3	81
86	Photocatalytic Mineralization of Commercial Herbicides in a Pilot-Scale Solar CPC Reactor: Photoreactor Modeling and Reaction Kinetics Constants Independent of Radiation Field. <i>Environmental Science & Technology</i> , 2009, 43, 8953-8960.	10.0	93
87	Preparation of titanium dioxide photocatalyst loaded onto activated carbon support using chemical vapor deposition: A review paper. <i>Journal of Hazardous Materials</i> , 2008, 157, 209-219.	12.4	385
88	Photo-electro-catalysis enhancement on carbon nanotubes/titanium dioxide (CNTs/TiO ₂) composite prepared by a novel surfactant wrapping sol-gel method. <i>Applied Catalysis B: Environmental</i> , 2008, 85, 17-23.	20.2	139
89	Ozonation kinetics of cork-processing water in a bubble column reactor. <i>Water Research</i> , 2008, 42, 2473-2482.	11.3	47
90	Novel one step hydrothermal synthesis of TiO ₂ /WO ₃ nanocomposites with enhanced photocatalytic activity. <i>Chemical Communications</i> , 2007, , 4749.	4.1	114

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91	Two-Dimensional Modeling of a Flat-Plate Photocatalytic Reactor for Oxidation of Indoor Air Pollutants. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 7489-7496.	3.7	55
92	Evaluation of the Intrinsic Photocatalytic Oxidation Kinetics of Indoor Air Pollutants. <i>Environmental Science & Technology</i> , 2007, 41, 2028-2035.	10.0	94
93	Radiation field optimization in photocatalytic monolith reactors for air treatment. <i>AIChE Journal</i> , 2007, 53, 678-686.	3.6	45
94	Dimensionless analysis of slurry photocatalytic reactors using two-flux and six-flux radiation absorption-scattering models. <i>Catalysis Today</i> , 2007, 122, 78-90.	4.4	141
95	Photocatalytic oxidation of multicomponent systems of herbicides: Scale-up of laboratory kinetics rate data to plant scale. <i>Catalysis Today</i> , 2007, 124, 124-132.	4.4	41
96	Photocatalytic oxidation of herbicides in single-component and multicomponent systems: Reaction kinetics analysis. <i>Applied Catalysis B: Environmental</i> , 2006, 65, 1-10.	20.2	70
97	Photocatalytic oxidation of multicomponent solutions of herbicides: Reaction kinetics analysis with explicit photon absorption effects. <i>Applied Catalysis B: Environmental</i> , 2006, 68, 171-180.	20.2	95
98	Dimensionless Analysis of Photocatalytic Reactors Using Suspended Solid Photocatalysts. <i>Chemical Engineering Research and Design</i> , 2005, 83, 820-826.	5.6	48
99	Modeling of an Annular Photocatalytic Reactor for Water Purification: Oxidation of Pesticides. <i>Environmental Science & Technology</i> , 2004, 38, 3737-3745.	10.0	93
100	Modelling and design of thin-film slurry photocatalytic reactors for water purification. <i>Chemical Engineering Science</i> , 2003, 58, 2269-2281.	3.8	69
101	Modeling of Thin-Film Slurry Photocatalytic Reactors Affected by Radiation Scattering. <i>Environmental Science & Technology</i> , 2003, 37, 5783-5791.	10.0	70
102	The modeling of a fountain photocatalytic reactor with a parabolic profile. <i>Chemical Engineering Science</i> , 2001, 56, 721-726.	3.8	23
103	A novel fountain photocatalytic reactor: model development and experimental validation. <i>Chemical Engineering Science</i> , 2001, 56, 2733-2744.	3.8	47
104	Comparison of the Effectiveness of Photon-Based Oxidation Processes in a Pilot Falling Film Photoreactor. <i>Environmental Science & Technology</i> , 1999, 33, 3210-3216.	10.0	36
105	A laminar falling film slurry photocatalytic reactor. Part II experimental validation of the model. <i>Chemical Engineering Science</i> , 1998, 53, 3007-3021.	3.8	31
106	A laminar falling film slurry photocatalytic reactor. Part I model development. <i>Chemical Engineering Science</i> , 1998, 53, 2993-3006.	3.8	48