

Giovanni Palmisano

List of Publications by Year in descending order

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122
papers

6,576
citations

71102

41
h-index

66911

78
g-index

132
all docs

132
docs citations

132
times ranked

7467
citing authors

#	ARTICLE	IF	CITATIONS
1	Photocatalysis: a promising route for 21st century organic chemistry. <i>Chemical Communications</i> , 2007, , 3425.	4.1	613
2	Nanostructured Rutile TiO ₂ for Selective Photocatalytic Oxidation of Aromatic Alcohols to Aldehydes in Water. <i>Journal of the American Chemical Society</i> , 2008, 130, 1568-1569.	13.7	430
3	Advances in selective conversions by heterogeneous photocatalysis. <i>Chemical Communications</i> , 2010, 46, 7074.	4.1	344
4	Flexible Solar Cells. <i>ChemSusChem</i> , 2008, 1, 880-891.	6.8	295
5	Overview on oxidation mechanisms of organic compounds by TiO ₂ in heterogeneous photocatalysis. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2012, 13, 224-245.	11.6	258
6	Metal-organic frameworks for photocatalytic CO ₂ reduction under visible radiation: A review of strategies and applications. <i>Catalysis Today</i> , 2020, 340, 209-224.	4.4	201
7	A review of material aspects in developing direct Z-scheme photocatalysts. <i>Materials Today</i> , 2021, 47, 75-107.	14.2	188
8	Photocatalytic Selective Oxidation of 4-Methoxybenzyl Alcohol to Aldehyde in Aqueous Suspension of Home-Prepared Titanium Dioxide Catalyst. <i>Advanced Synthesis and Catalysis</i> , 2007, 349, 964-970.	4.3	180
9	Selective photocatalytic oxidation of 4-substituted aromatic alcohols in water with rutile TiO ₂ prepared at room temperature. <i>Green Chemistry</i> , 2009, 11, 510.	9.0	167
10	Solar hydrogen: fuel of the near future. <i>Energy and Environmental Science</i> , 2010, 3, 279.	30.8	126
11	Selectivity of hydroxyl radical in the partial oxidation of aromatic compounds in heterogeneous photocatalysis. <i>Catalysis Today</i> , 2007, 122, 118-127.	4.4	122
12	Oxidation of Aromatic Alcohols in Irradiated Aqueous Suspensions of Commercial and Home-Prepared Rutile TiO ₂ : A Selectivity Study. <i>Chemistry - A European Journal</i> , 2008, 14, 4640-4646.	3.3	122
13	BIPV: merging the photovoltaic with the construction industry. <i>Progress in Photovoltaics: Research and Applications</i> , 2010, 18, 61-72.	8.1	119
14	One-pot electrocatalytic oxidation of glycerol to DHA. <i>Tetrahedron Letters</i> , 2006, 47, 6993-6995.	1.4	118
15	Titania Photocatalysts for Selective Oxidations in Water. <i>ChemSusChem</i> , 2011, 4, 1431-1438.	6.8	100
16	Heterogeneous Photocatalysis and Photoelectrocatalysis: From Unselective Abatement of Noxious Species to Selective Production of High-Value Chemicals. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1968-1981.	4.6	99
17	Silica-based hybrid coatings. <i>Journal of Materials Chemistry</i> , 2009, 19, 3116.	6.7	98
18	Photocatalytic Selective Oxidation of 5-(Hydroxymethyl)-2-furaldehyde to 2,5-Furandicarbaldehyde in Water by Using Anatase, Rutile, and Brookite TiO ₂ Nanoparticles. <i>ACS Sustainable Chemistry and Engineering</i> , 2013, 1, 456-461.	6.7	96

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19	Synthesis and Surface Modification of TiO ₂ -Based Photocatalysts for the Conversion of CO ₂ . <i>Catalysts</i> , 2020, 10, 227.	3.5	94
20	Environmentally Friendly Photocatalytic Oxidation of Aromatic Alcohol to Aldehyde in Aqueous Suspension of Brookite TiO ₂ . <i>Catalysis Letters</i> , 2008, 126, 58-62.	2.6	89
21	Influence of the substituent on selective photocatalytic oxidation of aromatic compounds in aqueous TiO ₂ suspensions. <i>Chemical Communications</i> , 2006, , 1012.	4.1	81
22	Photocatalytic oxidation of aromatic alcohols to aldehydes in aqueous suspension of home-prepared titanium dioxide. <i>Applied Catalysis A: General</i> , 2008, 349, 182-188.	4.3	79
23	Synthesis of vanillin in water by TiO ₂ photocatalysis. <i>Applied Catalysis B: Environmental</i> , 2012, 111-112, 555-561.	20.2	79
24	<i>In situ</i> simultaneous photovoltaic and structural evolution of perovskite solar cells during film formation. <i>Energy and Environmental Science</i> , 2018, 11, 383-393.	30.8	77
25	Halloysite nanotube with fluorinated lumen: Non-foaming nanocontainer for storage and controlled release of oxygen in aqueous media. <i>Journal of Colloid and Interface Science</i> , 2014, 417, 66-71.	9.4	76
26	Nanochemistry aspects of titania in dye-sensitized solar cells. <i>Energy and Environmental Science</i> , 2009, 2, 838.	30.8	75
27	Photocatalytic oxidation of aromatic alcohols to aldehydes in aqueous suspension of home prepared titanium dioxide. <i>Applied Catalysis A: General</i> , 2008, 349, 189-197.	4.3	74
28	(Photo)catalyst Characterization Techniques. , 2019, , 87-152.		74
29	Multilayer thin film structures for multifunctional glass: Self-cleaning, antireflective and energy-saving properties. <i>Applied Energy</i> , 2020, 264, 114697.	10.1	74
30	Current and future perspectives on catalytic-based integrated carbon capture and utilization. <i>Science of the Total Environment</i> , 2021, 790, 148081.	8.0	67
31	A new class of heterogeneous Pd catalysts for synthetic organic chemistry. <i>Catalysis Science and Technology</i> , 2011, 1, 736.	4.1	63
32	Home-prepared anatase, rutile, and brookite TiO ₂ for selective photocatalytic oxidation of 4-methoxybenzyl alcohol in water: reactivity and ATR-FTIR study. <i>Photochemical and Photobiological Sciences</i> , 2009, 8, 663-669.	2.9	62
33	Inorganic semiconductors-graphene composites in photo(electro)catalysis: Synthetic strategies, interaction mechanisms and applications. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2017, 33, 132-164.	11.6	54
34	The chemical effects of molecular sol-gel entrapment. <i>Chemical Society Reviews</i> , 2007, 36, 932-940.	38.1	52
35	Radiation-free superhydrophilic and antifogging properties of e-beam evaporated TiO ₂ films on glass. <i>Applied Surface Science</i> , 2017, 420, 83-93.	6.1	50
36	Selective photocatalytic oxidation of aromatic alcohols in solar-irradiated aqueous suspensions of Pt, Au, Pd and Ag loaded TiO ₂ catalysts. <i>Catalysis Today</i> , 2017, 281, 53-59.	4.4	49

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37	Overview on microfluidic reactors in photocatalysis: Applications of graphene derivatives. <i>Catalysis Today</i> , 2018, 315, 79-92.	4.4	49
38	Heterogeneous photocatalysis: guidelines on experimental setup, catalyst characterization, interpretation, and assessment of reactivity. <i>Catalysis Reviews - Science and Engineering</i> , 2019, 61, 163-213.	12.9	49
39	3D printed photocatalytic feed spacers functionalized with Fe^{2+} -FeOOH nanorods inducing pollutant degradation and membrane cleaning capabilities in water treatment. <i>Applied Catalysis B: Environmental</i> , 2022, 300, 120318.	20.2	49
40	Graphite-supported TiO ₂ for 4-nitrophenol degradation in a photoelectrocatalytic reactor. <i>Chemical Engineering Journal</i> , 2009, 155, 339-346.	12.7	47
41	Waste-Free Electrochemical Oxidation of Alcohols in Water. <i>Advanced Synthesis and Catalysis</i> , 2006, 348, 2033-2037.	4.3	46
42	Photocatalytic green synthesis of piperonal in aqueous TiO ₂ suspension. <i>Applied Catalysis B: Environmental</i> , 2014, 144, 607-613.	20.2	46
43	Electrodes Functionalized with the 2,2,6,6-tetramethylpiperidinyloxy Radical for the Waste-Free Oxidation of Alcohols. <i>ChemCatChem</i> , 2015, 7, 552-558.	3.7	42
44	Micro-mesoporous N-doped brookite-rutile TiO ₂ as efficient catalysts for water remediation under UV-free visible LED radiation. <i>Journal of Catalysis</i> , 2017, 346, 109-116.	6.2	42
45	Advances in anti-scale magnetic water treatment. <i>Environmental Science: Water Research and Technology</i> , 2015, 1, 408-425.	2.4	40
46	Optical Properties of TiO ₂ Suspensions: Influence of pH and Powder Concentration on Mean Particle Size. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 7620-7626.	3.7	39
47	Self-assembled titania-silica-sepiolite based nanocomposites for water decontamination. <i>Journal of Materials Chemistry</i> , 2009, 19, 2070.	6.7	38
48	Sol-gel entrapped visible light photocatalysts for selective conversions. <i>RSC Advances</i> , 2014, 4, 18341-18346.	3.6	38
49	Selective oxidation of phenol and benzoic acid in water via home-prepared TiO ₂ photocatalysts: Distribution of hydroxylation products. <i>Applied Catalysis A: General</i> , 2012, 441-442, 79-89.	4.3	35
50	Photoelectrocatalytic selective oxidation of 4-methoxybenzyl alcohol in water by TiO ₂ supported on titanium anodes. <i>Applied Catalysis B: Environmental</i> , 2013, 132-133, 535-542.	20.2	35
51	E-beam evaporated TiO ₂ and Cu-TiO ₂ on glass: Performance in the discoloration of methylene blue and 2-propanol oxidation. <i>Applied Catalysis A: General</i> , 2016, 526, 191-199.	4.3	34
52	Photocatalytic ozonation under visible light for the remediation of water effluents and its integration with an electro-membrane bioreactor. <i>Chemosphere</i> , 2018, 209, 534-541.	8.2	33
53	Photocatalytic oxidation of nitrobenzene and phenylamine: Pathways and kinetics. <i>AIChE Journal</i> , 2007, 53, 961-968.	3.6	31
54	TiO ₂ /ORMOSIL Thin Films Doped with Phthalocyanine Dyes: New Photocatalytic Devices Activated by Solar Light. <i>Journal of Physical Chemistry C</i> , 2008, 112, 2667-2670.	3.1	29

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55	Kinetics of 4-Methoxybenzyl Alcohol Oxidation in Aqueous Solution in a Fixed Bed Photocatalytic Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 6699-6708.	3.7	29
56	Enhancing selectivity in photocatalytic formation of p-anisaldehyde in aqueous suspension under solar light irradiation via TiO ₂ N-doping. <i>New Journal of Chemistry</i> , 2012, 36, 1762.	2.8	28
57	Visible-light driven oxidation of gaseous aliphatic alcohols to the corresponding carbonyls via TiO ₂ sensitized by a perylene derivative. <i>Environmental Science and Pollution Research</i> , 2014, 21, 11135-11141.	5.3	28
58	Highly stable defective TiO _{2-x} with tuned exposed facets induced by fluorine: Impact of surface and bulk properties on selective UV/visible alcohol photo-oxidation. <i>Applied Surface Science</i> , 2020, 510, 145419.	6.1	28
59	Citrate-stabilized gold nanoparticles hinder fibrillogenesis of a pathological variant of I ² ₂ -microglobulin. <i>Nanoscale</i> , 2017, 9, 3941-3951.	5.6	26
60	Relating Photoelectrochemistry and Wettability of Sputtered Cu- and N-Doped TiO ₂ Thin Films via an Integrated Approach. <i>Journal of Physical Chemistry C</i> , 2018, 122, 12369-12376.	3.1	26
61	Overview and challenges of the photolytic and photocatalytic splitting of H ₂ S. <i>Catalysis Today</i> , 2021, 380, 125-137.	4.4	26
62	N-TiO ₂ /Cu-TiO ₂ double-layer films: Impact of stacking order on photocatalytic properties. <i>Journal of Catalysis</i> , 2017, 353, 116-122.	6.2	25
63	Influence of fluorine on the synthesis of anatase TiO ₂ for photocatalytic partial oxidation: are exposed facets the main actors?. <i>Catalysis Science and Technology</i> , 2018, 8, 1606-1620.	4.1	25
64	A review of recent and emerging antimicrobial nanomaterials in wastewater treatment applications. <i>Chemosphere</i> , 2021, 278, 130440.	8.2	22
65	ORMOSIL Thin Films: Tuning Mechanical Properties via a Nanochemistry Approach. <i>Langmuir</i> , 2006, 22, 11158-11162.	3.5	21
66	Nanoflower-Like Bi ₂ WO ₆ Encapsulated in ORMOSIL as a Novel Photocatalytic Antifouling and Foul-Release Coating. <i>Chemistry - A European Journal</i> , 2016, 22, 7063-7067.	3.3	21
67	Determination of Photoadsorption Capacity of Polychrystalline TiO ₂ Catalyst in Irradiated Slurry. <i>Advances in Chemical Engineering</i> , 2009, 36, 1-35.	0.9	20
68	Photoelectrochemical activity of electrospun WO ₃ /NiWO ₄ nanofibers under visible light irradiation. <i>Journal of Materials Science</i> , 2018, 53, 2208-2220.	3.7	20
69	Enhanced photoelectrochemical performance of atomic layer deposited Hf-doped ZnO. <i>Surface and Coatings Technology</i> , 2020, 385, 125352.	4.8	20
70	Three-dimensional CFD modelling of a photocatalytic parallel-channel microreactor. <i>Chemical Engineering Science</i> , 2021, 229, 116051.	3.8	20
71	Validation of a two-dimensional modeling of an externally irradiated slurry photoreactor. <i>Chemical Engineering Journal</i> , 2015, 262, 490-498.	12.7	19
72	Modelling of a recirculating photocatalytic microreactor implementing mesoporous N-TiO ₂ modified with graphene. <i>Chemical Engineering Journal</i> , 2020, 391, 123574.	12.7	19

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73	Long-Lasting Non-hydrogenated Dark Titanium Dioxide: Medium Vacuum Anneal for Enhanced Visible Activity of Modified Multiphase Photocatalysts. <i>ChemCatChem</i> , 2018, 10, 2949-2954.	3.7	17
74	Unveiling the role of bisulfide in the photocatalytic splitting of H ₂ S in aqueous solutions. <i>Applied Catalysis B: Environmental</i> , 2020, 270, 118886.	20.2	17
75	Hydrogen production upon UV-light irradiation of Cu/TiO ₂ photocatalyst in the presence of alkanol-amines. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 26701-26715.	7.1	16
76	Tuning the selectivity to aldehyde via pH regulation in the photocatalytic oxidation of 4-methoxybenzyl alcohol and vanillyl alcohol by TiO ₂ catalysts. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105308.	6.7	16
77	Nanostructured anatase TiO ₂ densified at high pressure as advanced visible light photocatalysts. <i>Photochemical and Photobiological Sciences</i> , 2015, 14, 1685-1693.	2.9	15
78	Integrated Nano- and Macroscale Investigation of Photoinduced Hydrophilicity in TiO ₂ Thin Films. <i>Langmuir</i> , 2016, 32, 11813-11818.	3.5	15
79	Antifouling and Photocatalytic Antibacterial Activity of the AquaSun Coating in Seawater and Related Media. <i>ACS Omega</i> , 2017, 2, 7568-7575.	3.5	15
80	Sputtered vs. sol-gel TiO ₂ -doped films: Characterization and assessment of aqueous bisphenol A oxidation under UV and visible light radiation. <i>Catalysis Today</i> , 2020, 357, 380-391.	4.4	15
81	Computational modeling of green hydrogen generation from photocatalytic H ₂ S splitting: Overview and perspectives. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2021, 49, 100456.	11.6	15
82	Photoactivated Fe(III)/Fe(II)/WO ₃ -Pd fuel cell for electricity generation using synthetic and real effluents under visible light. <i>Renewable Energy</i> , 2020, 147, 1070-1081.	8.9	14
83	Selective Photocatalytic Oxidation of 4-Methoxybenzyl Alcohol to p-Anisaldehyde in Organic-Free Water in a Continuous Annular Fixed Bed Reactor. <i>International Journal of Chemical Reactor Engineering</i> , 2007, 5, .	1.1	13
84	TiO ₂ -Based Photocatalysis for Organic Synthesis. <i>Nanostructure Science and Technology</i> , 2010, , 623-645.	0.1	12
85	Heterogeneous Photocatalysis and Catalysis. , 2019, , 1-24.		12
86	NanoMORALS – Metal nanoparticles doped with organic molecules. <i>Canadian Journal of Chemistry</i> , 2009, 87, 673-677.	1.1	11
87	Growing N-doped multiphase TiO ₂ nanocomposites on reduced graphene oxide: Characterization and activity under low energy visible radiation. <i>Journal of Environmental Chemical Engineering</i> , 2017, 5, 5091-5098.	6.7	11
88	Hydrogen and Propane Production From Butyric Acid Photoreforming Over Pt-TiO ₂ . <i>Frontiers in Chemistry</i> , 2019, 7, 563.	3.6	11
89	Combined photocatalytic properties and energy efficiency via multifunctional glass. <i>Journal of Environmental Chemical Engineering</i> , 2019, 7, 102980.	6.7	11
90	N-Doped Anatase/Rutile Photocatalysts for the Synthesis of Aromatic Aldehydes Under Ultraviolet and Solar Irradiation. <i>Science of Advanced Materials</i> , 2015, 7, 2306-2319.	0.7	11

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91	A quantitative method of photoadsorption determination for irradiated catalyst in liquid–solid system. <i>Catalysis Today</i> , 2009, 143, 189-194.	4.4	10
92	Water microbial disinfection via supported nAg/Kaolin in a fixed-bed reactor configuration. <i>Applied Clay Science</i> , 2020, 184, 105387.	5.2	10
93	Highlights on Recent Developments of Heterogeneous and Homogeneous Photocatalysis. <i>Molecules</i> , 2021, 26, 23.	3.8	10
94	On form dictating function: shape and structural effects in silica-based functional materials. <i>Chemical Record</i> , 2010, 10, 17-28.	5.8	9
95	Unexpectedly ambivalent O ₂ role in the autocatalytic photooxidation of 2-methoxybenzyl alcohol in water. <i>Journal of Molecular Catalysis A</i> , 2015, 403, 37-42.	4.8	9
96	Differences between bulk and surface electronic structure of doped TiO ₂ with soft-elements (C, N and) <i>Tj ETQq 0 0 0 rgBT /Overlock 10</i>	4.0	9
97	Improved photocatalytic activity of SnO ₂ -TiO ₂ nanocomposite thin films prepared by low-temperature sol-gel method. <i>Catalysis Today</i> , 2022, 397-399, 540-549.	4.4	9
98	On the selectivity of butyric acid photoreforming over Au/TiO ₂ and Pt/TiO ₂ by UV and visible radiation: A combined experimental and theoretical study. <i>Applied Catalysis A: General</i> , 2021, 624, 118321.	4.3	8
99	Structural insight on organosilica electrodes for waste-free alcohol oxidations. <i>Catalysis Letters</i> , 2007, 114, 55-58.	2.6	7
100	Two-Dimensional Modeling of an Externally Irradiated Slurry Photoreactor. <i>International Journal of Chemical Reactor Engineering</i> , 2013, 11, 675-685.	1.1	7
101	Photocatalytic activity of an electrophoretically deposited composite titanium dioxide membrane using carbon cloth as a conducting substrate. <i>RSC Advances</i> , 2016, 6, 64219-64227.	3.6	7
102	Influence of the Preparation Temperature on the Photocatalytic Activity of 3D-Ordered Macroporous Anatase Formed with an Opal Polymer Template. <i>ACS Applied Nano Materials</i> , 2018, 1, 2567-2578.	5.0	7
103	Alkaline treatment as a means to boost the activity of TiO ₂ in selective photocatalytic processes. <i>Catalysis Science and Technology</i> , 2020, 10, 5000-5012.	4.1	7
104	Selective photooxidation of ortho-substituted benzyl alcohols and the catalytic role of ortho-methoxybenzaldehyde. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2016, 328, 122-128.	3.9	6
105	Reversible Metal Sulfide Transition in a Two-Step Thermochemical H ₂ S Splitting. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 6135-6145.	3.7	6
106	Combining energy efficiency with self-cleaning properties in smart glass functionalized with multilayered semiconductors. <i>Journal of Cleaner Production</i> , 2020, 272, 122830.	9.3	5
107	Design of a Microfluidic Photocatalytic Reactor for Removal of Volatile Organic Components: Process Simulation and Techno-Economic Assessment. <i>ACS Omega</i> , 2022, 7, 8306-8313.	3.5	5
108	Towards the Broad Utilization of Gold Nanoparticles Entrapped in Organosilica. <i>ChemCatChem</i> , 2017, 9, 1322-1328.	3.7	4

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109	Techno-economic Evaluation of Photocatalytic H ₂ S Splitting. Energy Technology, 2021, 9, 2100163.	3.8	4
110	Techno-economic Evaluation of Photocatalytic H ₂ S Splitting. Energy Technology, 2021, 9, 2170082.	3.8	3
111	Enhanced Mechanical Properties in Organofluorosilica Thin Films. Journal of Nanomaterials, 2008, 2008, 1-5.	2.7	2
112	Photocatalytic activity of neat and polymer-modified bitumen. Applied Materials Today, 2020, 21, 100795.	4.3	2
113	Editorial: Selective Photocatalysis for Organic Chemistry. Current Organic Chemistry, 2013, 17, 2365-2365.	1.6	1
114	Topologically non-trivial metal-organic assemblies inhibit Î²2-microglobulin amyloidogenesis. Cell Reports Physical Science, 2021, 2, 100477.	5.6	1
115	Photocatalytic Degradation of 2-propanol Over TiO ₂ -based Thin Films in a Simulated Pilot Microreactor. Journal of Photocatalysis, 2021, 2, 97-104.	0.4	1
116	Selective photocatalytic oxidation of 3-pyridinemethanol on platinumized acid/base modified TiO ₂ . Catalysis Science and Technology, 2021, 11, 4549-4559.	4.1	1
117	Green heterogeneous catalysis. , 2022, , 193-242.		1
118	Erratum to Two-Dimensional Modeling of an Externally Irradiated Slurry Photoreactor. International Journal of Chemical Reactor Engineering, 2014, 12, 665-665.	1.1	0
119	Graphene-based hybrid photocatalysts: a promising route toward high-efficiency photocatalytic water remediation. , 2020, , 325-359.		0
120	Characterization techniques. , 2022, , 243-314.		0
121	Adsorption models, surface reaction, and catalyst architectures. , 2022, , 63-99.		0
122	Design of Metal-Dielectric Multilayer Coatings for Energy-Efficient Building Glazing. Energy Technology, 0, , 2100776.	3.8	0