Pier Luigi Gentili

List of Publications by Year
in descending order

89	2,327	172457	254184
papers	citations	29 h-index	43 g-index

92	92	92	2394
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Static and Dynamic Interaction of a Naturally Occurring Photochromic Molecule with Bovine Serum Albumin Studied by UVâ"Visible Absorption and Fluorescence Spectroscopy. Journal of Physical Chemistry B, 2008, 112, 16793-16801.	2.6	138
2	Vibrational and electronic properties of painting lakes. Applied Physics A: Materials Science and Processing, 2008, 92, 25-33.	2.3	118
3	Ultrafast Energy Migration in Platinum(II) Diimine Complexes Bearing Pyrenylacetylide Chromophores. Journal of Physical Chemistry A, 2005, 109, 2465-2471.	2.5	92
4	Pulseâ€Coupled Chemical Oscillators with Time Delay. Angewandte Chemie - International Edition, 2012, 51, 6878-6881.	13.8	73
5	Excited-State Proton Transfer in Indigo. Journal of Physical Chemistry B, 2017, 121, 2308-2318.	2.6	70
6	Photochromism and Thermochromism of some Spirooxazines and Naphthopyrans in the Solid State and in Polymeric Film. Journal of Physical Chemistry C, 2010, 114, 6123-6131.	3.1	67
7	Photochromic, Thermochromic, and Fluorescent Spirooxazines and Naphthopyrans: A Spectrokinetic and Thermodynamic Study. ChemPhysChem, 2008, 9, 768-775.	2.1	58
8	Dynamics of the excited states of chromenes studied by fast and ultrafast spectroscopies. Photochemical and Photobiological Sciences, 2004, 3, 886.	2.9	57
9	Small steps towards the development of chemical artificial intelligent systems. RSC Advances, 2013, 3, 25523.	3.6	57
10	Boolean and Fuzzy Logic Gates Based on the Interaction of Flindersine with Bovine Serum Albumin and Tryptophan. Journal of Physical Chemistry A, 2008, 112, 11992-11997.	2.5	52
11	The fundamental Fuzzy logic operators and some complex Boolean logic circuits implemented by the chromogenism of a spirooxazine. Physical Chemistry Chemical Physics, 2011, 13, 20335.	2.8	52
12	The Fuzziness of the Molecular World and Its Perspectives. Molecules, 2018, 23, 2074.	3.8	51
13	The fuzziness of a chromogenic spirooxazine. Dyes and Pigments, 2014, 110, 235-248.	3.7	47
14	A tripletâ€"triplet annihilation based up-conversion process investigated in homogeneous solutions and oil-in-water microemulsions of a surfactant. Photochemical and Photobiological Sciences, 2013, 13, 48-61.	2.9	47
15	Molecular Processors: From Qubits to Fuzzy Logic. ChemPhysChem, 2011, 12, 739-745.	2.1	44
16	Boolean and fuzzy logic implemented at the molecular level. Chemical Physics, 2007, 336, 64-73.	1.9	43
17	Spectroscopic Investigation of the pH Controlled Inclusion of Doxycycline and Oxytetracycline Antibiotics in Cationic Micelles and Their Magnesium Driven Release. Journal of Physical Chemistry B, 2014, 118, 8601-8613.	2.6	43
18	Optical Communication among Oscillatory Reactions and Photoâ€Excitable Systems: UV and Visible Radiation Can Synchronize Artificial Neuron Models. Angewandte Chemie - International Edition, 2017, 56, 7535-7540.	13.8	43

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19	Unexpected chromogenic properties of 1,3,3-trimethylspiro(indoline-2,3â€²-[3H]naphtho [2,1-b][1,4]oxazine) in the solid phase: photochromism, piezochromism and acidichromism. New Journal of Chemistry, 2004, 28, 379-386.	2.8	42
20	Phototoxic Phytoalexins. Processes that Compete with the Photosensitized Production of Singlet Oxygen by 9-Phenylphenalenonesâ€. Photochemistry and Photobiology, 2006, 82, 95.	2.5	42
21	The Ring-Opening Reaction of Chromenes:Â A Photochemical Mode-Dependent Transformation. Journal of Physical Chemistry A, 2005, 109, 8684-8692.	2.5	41
22	Nanosized zirconium phosphate/AgCl composite materials: a new synergy for efficient photocatalytic degradation of organic dye pollutants. Journal of Materials Chemistry A, 2015, 3, 5525-5534.	10.3	41
23	Hydrogen Production from Water by Photolysis, Sonolysis and Sonophotolysis with Solid Solutions of Rare Earth, Gallium and Indium Oxides as Heterogeneous Catalysts. Sustainability, 2015, 7, 9310-9325.	3.2	40
24	Synergistic effects in hydrogen production through water sonophotolysis catalyzed by new La2xGa2yIn2(1â^'xâ^'y)O3 solid solutions. International Journal of Hydrogen Energy, 2009, 34, 9042-9049.	7.1	38
25	Photochromic and luminescent compounds as artificial neuron models. Dyes and Pigments, 2018, 156, 149-159.	3.7	37
26	Ultravioletâ€"Visible Absorption and Luminescence Properties of Quinacridoneâ€"Barium Sulfate Solid Mixtures. Applied Spectroscopy, 2010, 64, 923-929.	2.2	36
27	Extending human perception of electromagnetic radiation to the UV region through biologically inspired photochromic fuzzy logic (BIPFUL) systems. Chemical Communications, 2016, 52, 1474-1477.	4.1	36
28	Time-resolved spectroscopic characterization of photo-induced valence tautomerism for a cobaltâ€"dioxolene complex. Chemical Physics, 2005, 314, 9-17.	1.9	31
29	Establishing a New Link between Fuzzy Logic, Neuroscience, and Quantum Mechanics through Bayesian Probability: Perspectives in Artificial Intelligence and Unconventional Computing. Molecules, 2021, 26, 5987.	3.8	31
30	New molecular pairs for low power non-coherent tripletâ€"triplet annihilation based upconversion: dependence on the triplet energies of sensitizer and emitter. Journal of Luminescence, 2013, 135, 265-270.	3.1	30
31	De-Ethylation and Cleavage of Rhodamine B by a Zirconium Phosphate/Silver Bromide Composite Photocatalyst. Catalysts, 2019, 9, 3.	3.5	28
32	Preparation and characterization of zirconium phosphonateâ€"azobenzene intercalation compounds. A structural, photophysical and photochemical study. Journal of Materials Chemistry, 2004, 14, 1656-1662.	6.7	27
33	â€œPhotochemical Oscillatorâ€• Colored Hydrodynamic Oscillations and Waves in a Photochromic System. Journal of Physical Chemistry C, 2014, 118, 598-608.	3.1	27
34	Pâ€Type Photochromism of New Helical Naphthopyrans: Synthesis and Photochemical, Photophysical and Theoretical Study. ChemPhysChem, 2015, 16, 2447-2458.	2.1	27
35	Light and chemical oscillations: Review and perspectives. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2020, 43, 100321.	11.6	26
36	Processing Binary and Fuzzy Logic by Chaotic Time Series Generated by a Hydrodynamic Photochemical Oscillator. ChemPhysChem, 2017, 18, 1831-1841.	2.1	25

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37	The ultrafast energy transfer process in naphtoleâ€“nitrobenzofurazan bichromophoric molecular systems. Journal of Photochemistry and Photobiology A: Chemistry, 2007, 187, 209-221.	3.9	24
38	The human sensory system as a collection of specialized fuzzifiers: A conceptual framework to inspire new artificial intelligent systems computing with words. Journal of Intelligent and Fuzzy Systems, 2014, 27, 2137-2151.	1.4	24
39	A new dual luminescent pillared cerium(IV)sulfateâ€“diphosphonate. Inorganic Chemistry Communication, 2009, 12, 406-408.	3.9	23
40	Analysis and prediction of aperiodic hydrodynamic oscillatory time series by feed-forward neural networks, fuzzy logic, and a local nonlinear predictor. Chaos, 2015, 25, 013104.	2.5	21
41	Structural and photophysical characterization of some La2xGa2yIn2zO3 solid solutions, to be used as photocatalysts for H2 production from water/ethanol solutions. Solar Energy Materials and Solar Cells, 2010, 94, 2265-2274.	6.2	19
42	Why is Complexity Science valuable for reaching the goals of the UN 2030 Agenda?. Rendiconti Lincei, 2021, 32, 117-134.	2.2	19
43	Untangling Complex Systems. , 0, , .		19
44	The photoinduced ring opening reaction of benzo(2H)chromenes: a kinetic and thermodynamic approach. Chemical Physics, 2005, 309, 167-175.	1.9	18
45	Photocatalytic water oxidation mediated by iridium complexes. Catalysis Today, 2017, 290, 10-18.	4.4	18
46	A new photo-functional material constituted by a spirooxazine supported on a zirconium diphosphonate fluoride. Journal of Materials Chemistry, 2002, 12, 2872-2878.	6.7	17
47	Doxycycline and oxytetracycline loading of a zwitterionic amphoteric surfactant-gel and their controlled release. Physical Chemistry Chemical Physics, 2014, 16, 23096-23107.	2.8	17
48	Heat-induced self-assembling of BSA at the isoelectric point. International Journal of Biological Macromolecules, 2021, 177, 40-47.	7.5	17
49	In-materioneuromimetic devices: dynamics, information processing and pattern recognition. Japanese Journal of Applied Physics, 2020, 59, 050504.	1.5	17
50	Supramolecular interaction of a spirooxazine with amino acids. Chemical Physics Letters, 2007, 444, 135-139.	2.6	16
51	A two excited state model to explain the peculiar photobehaviour of a flexible quadrupolar Dâ€“Ï€â€“D anthracene derivative. Physical Chemistry Chemical Physics, 2016, 18, 23389-23399.	2.8	16
52	Chiral separation of helical chromenes with chloromethyl phenylcarbamate polysaccharideâ€based stationary phases. Journal of Separation Science, 2018, 41, 1266-1273.	2.5	15
53	Synthesis, X-ray Powder Structure, and Photophysical Properties of Three New Ce(III) Sulfate-Diaminotetraphosphonate-Based Coordination Polymers. Crystal Growth and Design, 2010, 10, 4831-4838.	3.0	14
54	Discriminating between the UV-A, UV-B and UV-C regions by novel Biologically Inspired Photochromic Fuzzy Logic (BIPFUL) systems: A detailed comparative study. Dyes and Pigments, 2016, 135, 169-176.	3.7	14

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55	Vibronic effects in pathways of photochemistry and vibrational relaxation. Chemical Physics, 2005, 316, 108-116.	1.9	13
56	Effects of Proximity on the Relaxation Dynamics of Flindersine and 6(5H)-Phenanthridinone. Journal of Physical Chemistry A, 2007, 111, 193-200.	2.5	13
57	Probing and exploiting the chaotic dynamics of a hydrodynamic photochemical oscillator to implement all the basic binary logic functions. Chaos, 2016, 26, 053102.	2.5	13
58	Designing and Teaching a Novel Interdisciplinary Course on Complex Systems To Prepare New Generations To Address 21st-Century Challenges. Journal of Chemical Education, 2019, 96, 2704-2709.	2.3	13
59	Chemical Neural Networks Inside Synthetic Cells? A Proposal for Their Realization and Modeling. Frontiers in Bioengineering and Biotechnology, 0, 10, .	4.1	13
60	Twisting in the excited state of an N-methylpyridinium fluorescent dye modulated by nano-heterogeneous micellar systems. Photochemical and Photobiological Sciences, 2016, 15, 525-535.	2.9	11
61	Triplet-triplet annihilation based upconversion in silica matrices. Microporous and Mesoporous Materials, 2017, 246, 120-129.	4.4	11
62	Aggregation-Induced Emission in Phenothiazine-Based Fluorophores: An Insight into the Excited State and Aggregate Formation Mechanism. Journal of Physical Chemistry C, 2022, 126, 10429-10440.	3.1	11
63	Role of the microenvironment on the fluorescent properties of a spirooxazine. Chemical Physics Letters, 2010, 491, 80-85.	2.6	10
64	The Structures, Morphologies, and Photophysical Properties of Multiluminescent Layered Lanthanideâ€“Phosphonoâ€“Carboxylate Nanoparticles. Chemistry - A European Journal, 2012, 18, 4296-4307.	3.3	10
65	A contribution to neuromorphic engineering: neuromodulation implemented through photochromic compounds maintained out of equilibrium by UVâ€“visible radiation. Rendiconti Lincei, 2020, 31, 39-52.	2.2	10
66	Photochromic and luminescent materials for the development of Chemical Artificial Intelligence. Dyes and Pigments, 2022, 205, 110547.	3.7	10
67	Effects of the Exciting Wavelength and Viscosity on the Photobehavior of 9- and 9,10-Bromoanthracenes. Journal of Physical Chemistry A, 2007, 111, 5948-5953.	2.5	9
68	Study of the Photobehavior of a Newly Synthesized Chiroptical Molecule: (E)-(R_p,R_p)-1,2-Bis{4-methyl-[2]paracyclo[2](5,8)quinolinophan-2-yl}ethene. Journal of Physical Chemistry A, 2009, 113, 14650-14656.	2.8	9
69	A multi-spectroscopic approach to investigate the interactions between Gramicidin A and silver nanoparticles. Soft Matter, 2019, 15, 6571-6580.	2.7	8
70	Mimicking the Secretory Action of a Gland by a Composite System Made of a pH-Responsive Surfactant-Based Hydrogel and a Dialysis Membrane. ACS Omega, 2018, 3, 16777-16783.	3.5	7
71	Light-driven artificial neuron models based on photoswitchable systems. Dyes and Pigments, 2021, 187, 109086.	3.7	7
72	Probing the structural features and the micro-heterogeneity of various deep eutectic solvents and their water dilutions by the photophysical behaviour of two fluorophores. Journal of Molecular Liquids, 2021, 331, 115718.	4.9	7

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73	Molecular-based upconversion in homo/heterogeneous liquids and in micro/nanostructured solid materials. Dalton Transactions, 2018, 47, 8557-8565.	3.3	6
74	Structural similarities in 1D coordination polymers of alkaline earth diphosphinates. Inorganica Chimica Acta, 2012, 391, 150-157.	2.4	5
75	Photoluminescence properties of La 2x Ga 2y In 2z O 3 solid solutions used as photocatalysts for water splitting and promising panchromatic emitters. Journal of Luminescence, 2016, 177, 314-324.	3.1	5
76	The Fuzziness in Molecular, Supramolecular, and Systems Chemistry. Molecules, 2020, 25, 3634.	3.8	5
77	Effects of glutathione on the luminescent behavior of CdSe-nanocrystals. Journal of Luminescence, 2020, 226, 117513.	3.1	5
78	Effects of solvent, excitation wavelength, and concentration on the photobehavior of some diazonaphthoquinones. Arkivoc, 2011, 2011, 205-220.	0.5	4
79	UV-Visible radiation modulation abilities of photon up-converting nanocapsules integrated with an oscillatory reaction. Journal of Materials Chemistry C, 2022, 10, 9073-9080.	5.5	4
80	Unexpected multiple activated steps in the excited state decay of some bis(phenylethynyl)-fluorenes and -anthracenes. Physical Chemistry Chemical Physics, 2016, 18, 285-294.	2.8	3
81	Optical Communication among Oscillatory Reactions and Photoâ€Excitable Systems: UV and Visible Radiation Can Synchronize Artificial Neuron Models. Angewandte Chemie, 2017, 129, 7643-7648.	2.0	3
82	A Strategy to Face Complexity: The Development of Chemical Artificial Intelligence. Communications in Computer and Information Science, 2017, , 151-160.	0.5	3
83	Characterization of photo-induced valence tautomerism in a cobalt-dioxolene complex by ultrafast spectroscopy. Journal of Physics: Conference Series, 2005, 21, 124-129.	0.4	2
84	From Oscillatory Reactions to Robotics: A Serendipitous Journey Through Chemistry, Physics and Computation. , 2021, , 1-79.		2
85	Design of a new photochromic oscillator: towards dynamical models of pacemaker neurons. Reaction Kinetics, Mechanisms and Catalysis, 0, , 1.	1.7	2
86	The Development of Chemical Artificial Intelligence Processing Fuzzy Logic. Emergence, Complexity and Computation, 2015, , 37-46.	0.3	1
87	Implementing Fuzzy Sets and Processing Fuzzy Logic Information by Molecules. , 2022, 81, .		1
88	6 Vagueness in chemistry. , 2021, , 107-112.		0
89	The Science of Complex Systems for Preparing the New Generation to Tackle Global Challenges.. , 0, , .		0