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	Implementing Fuzzy Sets and Processing Fuzzy Logic Information by Molecules. , 2022, 81, .		1
2	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
3	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
4	Photochromic and luminescent materials for the development of Chemical Artificial Intelligence. Dyes and Pigments, 2022, 205, 110547.	3.7	10
5	Light-driven artificial neuron models based on photoswitchable systems. Dyes and Pigments, 2021, 187, 109086.	3.7	7
6	Why is Complexity Science valuable for reaching the goals of the UN 2030 Agenda?. Rendiconti Lincei, 2021, 32, 117-134.	2.2	19
7	Heat-induced self-assembling of BSA at the isoelectric point. International Journal of Biological Macromolecules, 2021, 177, 40-47.	7.5	17
8	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
9	6 Vagueness in chemistry. , 2021, , 107-112.		0
10	From Oscillatory Reactions to Robotics: A Serendipitous Journey Through Chemistry, Physics and Computation. , 2021, , 1-79.		2
11	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
12	Light and chemical oscillations: Review and perspectives. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2020, 43, 100321.	11.6	26
13	The Fuzziness in Molecular, Supramolecular, and Systems Chemistry. Molecules, 2020, 25, 3634.	3.8	5
14	Effects of glutathione on the luminescent behavior of CdSe-nanocrystals. Journal of Luminescence, 2020, 226, 117513.	3.1	5
15	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
16	In-materioneuromimetic devices: dynamics, information processing and pattern recognition. Japanese Journal of Applied Physics, 2020, 59, 050504.	1.5	17
17	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
18	A multi-spectroscopic approach to investigate the interactions between Gramicidin A and silver nanoparticles. Soft Matter, 2019, 15, 6571-6580.	2.7	8

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19	De-Ethylation and Cleavage of Rhodamine B by a Zirconium Phosphate/Silver Bromide Composite Photocatalyst. Catalysts, 2019, 9, 3.	3.5	28
20	Photochromic and luminescent compounds as artificial neuron models. Dyes and Pigments, 2018, 156, 149-159.	3.7	37
21	Chiral separation of helical chromenes with chloromethyl phenylcarbamate polysaccharideâ€based stationary phases. Journal of Separation Science, 2018, 41, 1266-1273.	2.5	15
22	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
23	The Fuzziness of the Molecular World and Its Perspectives. Molecules, 2018, 23, 2074.	3.8	51
24	Molecular-based upconversion in homo/heterogeneous liquids and in micro/nanostructured solid materials. Dalton Transactions, 2018, 47, 8557-8565.	3.3	6
25	Excited-State Proton Transfer in Indigo. Journal of Physical Chemistry B, 2017, 121, 2308-2318.	2.6	70
26	Processing Binary and Fuzzy Logic by Chaotic Time Series Generated by a Hydrodynamic Photochemical Oscillator. ChemPhysChem, 2017, 18, 1831-1841.	2.1	25
27	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
28	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
29	Triplet-triplet annihilation based upconversion in silica matrices. Microporous and Mesoporous Materials, 2017, 246, 120-129.	4.4	11
30	Photocatalytic water oxidation mediated by iridium complexes. Catalysis Today, 2017, 290, 10-18.	4.4	18
31	A Strategy to Face Complexity: The Development of Chemical Artificial Intelligence. Communications in Computer and Information Science, 2017, , 151-160.	0.5	3
32	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
33	A two excited state model to explain the peculiar photobehaviour of a flexible quadrupolar Dâ€“Ïâ€“D anthracene derivative. Physical Chemistry Chemical Physics, 2016, 18, 23389-23399.	2.8	16
34	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
35	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
36	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

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37	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
38	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
39	Pâ€Type Photochromism of New Helical Naphthopyrans: Synthesis and Photochemical, Photophysical and Theoretical Study. ChemPhysChem, 2015, 16, 2447-2458.	2.1	27
40	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
41	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
42	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
43	The Development of Chemical Artificial Intelligence Processing Fuzzy Logic. Emergence, Complexity and Computation, 2015, , 37-46.	0.3	1
44	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
45	The fuzziness of a chromogenic spirooxazine. Dyes and Pigments, 2014, 110, 235-248.	3.7	47
46	â€œPhotochemical Oscillatorâ€• Colored Hydrodynamic Oscillations and Waves in a Photochromic System. Journal of Physical Chemistry C, 2014, 118, 598-608.	3.1	27
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	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
49	Small steps towards the development of chemical artificial intelligent systems. RSC Advances, 2013, 3, 25523.	3.6	57
50	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
51	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
52	Structural similarities in 1D coordination polymers of alkaline earth diphosphinates. Inorganica Chimica Acta, 2012, 391, 150-157.	2.4	5
53	Pulseâ€Coupled Chemical Oscillators with Time Delay. Angewandte Chemie - International Edition, 2012, 51, 6878-6881.	13.8	73
54	The Structures, Morphologies, and Photophysical Properties of Multiluminescent Layered Lanthanideâ€“Phosphonoâ€“Carboxylate Nanoparticles. Chemistry - A European Journal, 2012, 18, 4296-4307.	3.3	10

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55	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
56	Molecular Processors: From Qubits to Fuzzy Logic. ChemPhysChem, 2011, 12, 739-745.	2.1	44
57	Effects of solvent, excitation wavelength, and concentration on the photobehavior of some diazonaphthoquinones. Arkivoc, 2011, 2011, 205-220.	0.5	4
58	Role of the microenvironment on the fluorescent properties of a spirooxazine. Chemical Physics Letters, 2010, 491, 80-85.	2.6	10
59	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
60	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
61	Ultravioletâ€"Visible Absorption and Luminescence Properties of Quinacridoneâ€"Barium Sulfate Solid Mixtures. Applied Spectroscopy, 2010, 64, 923-929.	2.2	36
62	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
63	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
64	A new dual luminescent pillared cerium(IV)sulfateâ€"diphosphonate. Inorganic Chemistry Communication, 2009, 12, 406-408.	3.9	23
65	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
66	Vibrational and electronic properties of painting lakes. Applied Physics A: Materials Science and Processing, 2008, 92, 25-33.	2.3	118
67	Photochromic, Thermochromic, and Fluorescent Spirooxazines and Naphthopyrans: A Spectrokinetic and Thermodynamic Study. ChemPhysChem, 2008, 9, 768-775.	2.1	58
68	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
69	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
70	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
71	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
72	Supramolecular interaction of a spirooxazine with amino acids. Chemical Physics Letters, 2007, 444, 135-139.	2.6	16

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73	Boolean and fuzzy logic implemented at the molecular level. Chemical Physics, 2007, 336, 64-73.	1.9	43
74	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
75	Phototoxic Phytoalexins. Processes that Compete with the Photosensitized Production of Singlet Oxygen by 9-Phenylphenalenonesâ€. Photochemistry and Photobiology, 2006, 82, 95.	2.5	42
76	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
77	The photoinduced ring opening reaction of benzo(2H)chromenes: a kinetic and thermodynamic approach. Chemical Physics, 2005, 309, 167-175.	1.9	18
78	Time-resolved spectroscopic characterization of photo-induced valence tautomerism for a cobaltâ€“dioxolene complex. Chemical Physics, 2005, 314, 9-17.	1.9	31
79	Vibronic effects in pathways of photochemistry and vibrational relaxation. Chemical Physics, 2005, 316, 108-116.	1.9	13
80	The Ring-Opening Reaction of Chromenes:Â A Photochemical Mode-Dependent Transformation. Journal of Physical Chemistry A, 2005, 109, 8684-8692.	2.5	41
81	Ultrafast Energy Migration in Platinum(II) Diimine Complexes Bearing Pyrenylacetylide Chromophores. Journal of Physical Chemistry A, 2005, 109, 2465-2471.	2.5	92
82	Dynamics of the excited states of chromenes studied by fast and ultrafast spectroscopies. Photochemical and Photobiological Sciences, 2004, 3, 886.	2.9	57
83	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
84	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
85	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
86	Untangling Complex Systems. , 0, , .		19
87	Design of a new photochromic oscillator: towards dynamical models of pacemaker neurons. Reaction Kinetics, Mechanisms and Catalysis, 0, , 1.	1.7	2
88	The Science of Complex Systems for Preparing the New Generation to Tackle Global Challenges.. , 0, , .		0
89	Chemical Neural Networks Inside Synthetic Cells? A Proposal for Their Realization and Modeling. Frontiers in Bioengineering and Biotechnology, 0, 10, .	4.1	13