Amilra Prasanna De Silva

List of Publications by Year
in descending order

92	18,011	38742 50	46799 89
papers	citations	h-index	g-index

99	99	99	10897
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Signaling Recognition Events with Fluorescent Sensors and Switches. Chemical Reviews, 1997, 97, 1515-1566.	47.7	6,736
2	Luminescent sensors and switches in the early 21st century. Tetrahedron, 2005, 61, 8551-8588.	1.9	1,074
3	Molecular logic and computing. Nature Nanotechnology, 2007, 2, 399-410.	31.5	812
4	Molecular-Scale Logic Gates. Chemistry - A European Journal, 2004, 10, 574-586.	3.3	591
5	Molecular fluorescent signalling with â€˜fluorâ€“spacerâ€“receptorâ€™ systems: approaches to sensing and switching devices via supramolecular photophysics. Chemical Society Reviews, 1992, 21, 187-195.	38.1	573
6	Fluorescent PET (Photoinduced Electron Transfer) sensors as potent analytical tools. Analyst, The, 2009, 134, 2385.	3.5	507
7	Current developments in fluorescent PET (photoinduced electron transfer) sensors and switches. Chemical Society Reviews, 2015, 44, 4203-4211.	38.1	462
8	Integration of Logic Functions and Sequential Operation of Gates at the Molecular-Scale. Journal of the American Chemical Society, 1999, 121, 1393-1394.	13.7	352
9	Fluorescent Polymeric AND Logic Gate with Temperature and pH as Inputs. Journal of the American Chemical Society, 2004, 126, 3032-3033.	13.7	340
10	Molecular Photoionic AND Logic Gates with Bright Fluorescence and â€œOffâ€™Onâ€•Digital Action. Journal of the American Chemical Society, 1997, 119, 7891-7892.	13.7	330
11	Proof-of-Principle of Molecular-Scale Arithmetic. Journal of the American Chemical Society, 2000, 122, 3965-3966.	13.7	323
12	New Fluorescent Model Compounds for the Study of Photoinduced Electron Transfer: The Influence of a Molecular Electric Field in the Excited State. Angewandte Chemie International Edition in English, 1995, 34, 1728-1731.	4.4	313
13	Communicating Chemical Congregation:Â A Molecular AND Logic Gate with Three Chemical Inputs as a â€œLab-on-a-Moleculeâ€•Prototype. Journal of the American Chemical Society, 2006, 128, 4950-4951.	13.7	312
14	Fluorescent Molecular Thermometers Based on Polymers Showing Temperature-Induced Phase Transitions and Labeled with Polarity-Responsive Benzofurazans. Analytical Chemistry, 2003, 75, 5926-5935.	6.5	295
15	Fluorescent signalling crown ethers; â€˜switching onâ€™ of fluorescence by alkali metal ion recognition and binding in situ. Journal of the Chemical Society Chemical Communications, 1986, , 1709-1710.	2.0	233
16	Molecular computational elements encode large populations of small objects. Nature Materials, 2006, 5, 787-789.	27.5	228
17	Simultaneously Multiply-Configurable or Superposed Molecular Logic Systems Composed of ICT (Internal Charge Transfer) Chromophores and Fluorophores Integrated with One- or Two-Ion Receptors. Chemistry - A European Journal, 2002, 8, 4935-4945.	3.3	216
18	Newer optical-based molecular devices from older coordination chemistry. Dalton Transactions, 2003, , 1902-1913.	3.3	172

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19	A new class of fluorescent pH indicators based on photo-induced electron transfer. Journal of the Chemical Society Chemical Communications, 1985, , 1669.	2.0	167
20	Bright molecules with sense, logic, numeracy and utility. Organic and Biomolecular Chemistry, 2008, 6, 2468.	2.8	164
21	A supramolecular chemistry basis for molecular logic and computation. Coordination Chemistry Reviews, 2007, 251, 1623-1632.	18.8	163
22	Molecular Logic Gate Arrays. Chemistry - an Asian Journal, 2011, 6, 750-766.	3.3	160
23	Direct visual indication of pH windows: â€˜offâ€“onâ€“offâ€™ fluorescent PET (photoinduced electron) Tj ETQq1 1 0.784314 rgBT /Ov	4.1	159
24	Arenedicarboximide Building Blocks for Fluorescent Photoinduced Electron Transfer pH Sensors Applicable with Different Media and Communication Wavelengths. Chemistry - A European Journal, 1998, 4, 1810-1815.	3.3	133
25	Development of fluorescent microgel thermometers based on thermo-responsive polymers and their modulation of sensitivity range. Journal of Materials Chemistry, 2005, 15, 2796.	6.7	132
26	Proton-Controlled Switching of Luminescence in Lanthanide Complexes in Aqueous Solution: pH Sensors Based on Long-Lived Emission. Angewandte Chemie International Edition in English, 1996, 35, 2116-2118.	4.4	129
27	â€˜Offâ€“onâ€™ fluorescent sensors for physiological levels of magnesium ions based on photoinduced electron transfer (PET), which also behave as photoionic OR logic gates. Journal of the Chemical Society Chemical Communications, 1994, .	2.0	127
28	Membrane Media Create Small Nanospaces for Molecular Computation. Journal of the American Chemical Society, 2005, 127, 8920-8921.	13.7	113
29	Modulation of the Sensitive Temperature Range of Fluorescent Molecular Thermometers Based on Thermoresponsive Polymers. Analytical Chemistry, 2004, 76, 1793-1798.	6.5	107
30	Fluorescenceâ€œOffâ€“Onâ€•Signalling upon Linear Recognition and Binding ofÎ±,Ï‰-Alkanediyldiammonium Ions by 9,10-Bis{(1-aza-4,7,10,13,16-pentaoxacyclooctadecyl)methyl}anthracene. Angewandte Chemie International Edition in English, 1990, 29, 1173-1175.	4.4	101
31	Luminescent Molecular Thermometers. Journal of Chemical Education, 2006, 83, 720.	2.3	100
32	Taking baby steps in molecular logic-based computation. Chemical Communications, 2015, 51, 8403-8409.	4.1	95
33	Fluorescent PET(Photoinduced Electron Transfer) reagents for thiols. Tetrahedron Letters, 1998, 39, 5077-5080.	1.4	92
34	Luminescence and charge transfer. Part 2. Aminomethyl anthracene derivatives as fluorescent PET (photoinduced electron transfer) sensors for protons. Journal of the Chemical Society Perkin Transactions II, 1992, , 1559.	0.9	90
35	A layer of logic. Nature, 2008, 454, 417-418.	27.8	86
36	Direct detection of ion pairs by fluorescence enhancement. Chemical Communications, 2003, , 2010.	4.1	83

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37	Multiplexing Sensory Molecules Map Protons Near Micellar Membranes. Angewandte Chemie - International Edition, 2008, 47, 4667-4669.	13.8	79
38	Switching between molecular switch types by module rearrangement: Ca2+-enabled, H+-driven â€˜Offâ€“Onâ€“Offâ€™, H+-driven YES and PASS 0 as well as H+, Ca2+-driven AND logic operations. Chemical Communications, 2004, , 2048-2049.	4.1	78
39	Luminescent sensors and photonic switches. Pure and Applied Chemistry, 2001, 73, 503-511.	1.9	77
40	Quantitative mapping of aqueous microfluidic temperature with sub-degree resolution using fluorescence lifetime imaging microscopy. Lab on A Chip, 2010, 10, 1267.	6.0	74
41	Fluorescent PET (photoinduced electron transfer) sensors selective for submicromolar calcium with quantitatively predictable spectral and ion-binding properties. Journal of the Chemical Society Chemical Communications, 1990, , 186.	2.0	72
42	Luminescence and charge transfer. Part 3. The use of chromophores with ICT (internal charge) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 552 sensors and related absorption pH sensors with aminoalkyl side chains. Journal of the Chemical Society Perkin Transactions II, 1993, , 1611.	0.9	72
43	Photoionic devices with receptor-functionalized fluorophores. Pure and Applied Chemistry, 1996, 68, 1443-1448.	1.9	69
44	Luminescent Photoinduced Electron Transfer (PET) Molecules for Sensing and Logic Operations. Journal of Physical Chemistry Letters, 2011, 2, 2865-2871.	4.6	69
45	Building pH Sensors into Paper-Based Small-Molecular Logic Systems for Very Simple Detection of Edges of Objects. Journal of the American Chemical Society, 2015, 137, 3763-3766.	13.7	67
46	Analog Parallel Processing of Molecular Sensory Information. Journal of the American Chemical Society, 2007, 129, 3050-3051.	13.7	66
47	Fluorescent PET (photo-induced electron transfer) sensors for alkali metal ions with improved selectivity against protons and with predictable binding constants. Journal of the Chemical Society Chemical Communications, 1989, , 1183.	2.0	65
48	From complexation to computation: Recent progress in molecular logic. Inorganica Chimica Acta, 2007, 360, 751-764.	2.4	65
49	Switching â€˜onâ€™ the luminescence of one metal ion with another: selectivity characteristics with respect to the emitting and triggering metal. Chemical Communications, 1997, , 1891.	4.1	60
50	Fluorescent PET (photoinduced electron transfer) sensors with targeting/anchoring modules as molecular versions of submarine periscopes for mapping membrane-bounded protons. Journal of the Chemical Society Chemical Communications, 1994, , 405.	2.0	57
51	Chemical approaches to nanometre-scale logic gates. Journal of Physics Condensed Matter, 2006, 18, S1847-S1872.	1.8	52
52	Compartmental fluorescent pH indicators with nearly complete predictability of indicator parameters; molecular engineering of pH sensors. Journal of the Chemical Society Chemical Communications, 1989, , 1054.	2.0	51
53	Multiply reconfigurable â€˜plug and playâ€™ molecular logic via self-assembly. Chemical Communications, 2009, , 1386.	4.1	51
54	Solid-bound, proton-driven, fluorescent â€˜offâ€“onâ€“offâ€™ switches based on PET (photoinduced electron) Tj ETQq0 0 0 rgBT /Over	1.9	46

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55	Molecular memory with downstream logic processing exemplified by switchable and self-indicating guest capture and release. Nature Communications, 2019, 10, 49.	12.8	45
56	Phosphorescent PET (photoinduced electron transfer) sensors: prototypical examples for proton monitoring and a â€˜message in a bottleâ€™ enhancement strategy with cyclodextrins. Journal of the Chemical Society Chemical Communications, 1991, , 1148-1150.	2.0	40
57	The pH-dependent fluorescence of pyridylmethyl-4-amino-1,8-naphthalimides. Arkivoc, 2003, 2003, 229-243.	0.5	40
58	Neue fluoreszierende Modellverbindungen fÃ¼r das Studium des lichtinduzierten Elektronentransfers: der EinfluÃŸ eines molekularen elektrischen Feldes im angeregten Zustand. Angewandte Chemie, 1995, 107, 1889-1891.	2.0	38
59	Molecular Logic Gates and Luminescent Sensors Based on Photoinduced Electron Transfer. Topics in Current Chemistry, 2010, 300, 1-28.	4.0	38
60	The Anthracen-9-ylmethyloxy Unit: An Underperforming Motif Within the Fluorescent PET (Photoinduced Electron Transfer) Sensing Framework. Journal of Fluorescence, 2005, 15, 769-775.	2.5	37
61	From PASS 1 to YES to AND logic: building parallel processing into molecular logic gates by sequential addition of receptors. New Journal of Chemistry, 2010, 34, 476.	2.8	37
62	Measurement of Local Sodium Ion Levels near Micelle Surfaces with Fluorescent Photoinducedâ€Electronâ€Transfer Sensors. Angewandte Chemie - International Edition, 2016, 55, 768-771.	13.8	37
63	Sense and versatility. Nature, 2007, 445, 718-719.	27.8	31
64	Small molecular logic systems can draw the outlines of objects via edge visualization. Chemical Science, 2015, 6, 4472-4478.	7.4	31
65	Supra-molecular agents running tasks intelligently (SMARTI): recent developments in molecular logic-based computation. Molecular Systems Design and Engineering, 2020, 5, 1325-1353.	3.4	31
66	Sterically Hindered Diaryl Benzobis(thiadiazole)s as Effective Photochromic Switches. Angewandte Chemie - International Edition, 2015, 54, 9754-9756.	13.8	30
67	Modification of Fluorescent Photoinduced Electron Transfer (PET) Sensors/Switches To Produce Molecular Photoâ€Ionic Triode Action. Angewandte Chemie - International Edition, 2014, 53, 3622-3625.	13.8	29
68	Consolidating molecular AND logic with two chemical inputs. Analytica Chimica Acta, 2006, 568, 156-160.	5.4	26
69	Consolidating Molecular Logic with New Solidâ€Bound YES and PASSâ€…1 Gates and Their Combinations. ChemPhysChem, 2017, 18, 1760-1766.	2.1	23
70	Path-selective photoinduced electron transfer (PET) in a membrane-associated system studied by pH-dependent fluorescence. Inorganica Chimica Acta, 2012, 381, 243-246.	2.4	22
71	Bright ideas. Nature Chemistry, 2012, 4, 440-441.	13.6	21
72	Logische Schaltungen mit leuchtenden MolekÃ¼len. Nachrichten Aus Der Chemie, 2001, 49, 602-606.	0.0	20

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73	Fluorescent molecular logic gates based on photoinduced electron transfer (PET) driven by a combination of atomic and biomolecular inputs. Chemical Communications, 2020, 56, 6838-6841.	4.1	20
74	Lighting-up proteinâ€“ligand interactions with fluorescent PET (photoinduced electron transfer) sensor designs. Chemical Communications, 2018, 54, 1319-1322.	4.1	19
75	Population analysis to increase the robustness of molecular computational identification and its extension into the near-infrared for substantial numbers of small objects. Chemical Science, 2019, 10, 2272-2279.	7.4	19
76	FluoreszenzverÃnderungen durch Bindung von Î±,Ï‰â€Alkandiyldiammoniumâ€Ionen an 9,10â€Bis{(1â€azaâ€4,7,10,13,16â€pentaoxacyclooctadecyl)methyl}anthracen: ein System zur molekularen LÃngenerkennung. Angewandte Chemie, 1990, 102, 1159-1161.	2.0	14
77	Bright spies for chiral molecules. Nature, 1995, 374, 310-311.	27.8	13
78	Fluorescent Molecular Logic Gates Driven by Temperature and by Protons in Solution and on Solid. Chemistry - A European Journal, 2021, 27, 13268-13274.	3.3	12
79	Taming Tris(bipyridine)ruthenium(II) and Its Reactions in Water by Capture/Release with Shape-Switchable Symmetry-Matched Cyclophanes. Journal of the American Chemical Society, 2022, 144, 4977-4988.	13.7	12
80	Information gathering and processing with fluorescent molecules. Frontiers of Chemical Science and Engineering, 2014, 8, 240-251.	4.4	11
81	Fluorescent Photoinduced Electron-Transfer Sensors. ACS Symposium Series, 1993, , 45-58.	0.5	9
82	Crossing the divide: Experiences of taking fluorescent PET (photoinduced electron transfer) sensing/switching systems from solution to solid. Dyes and Pigments, 2022, 204, 110453.	3.7	9
83	Bright molecules for sensing, computing and imaging: a tale of two once-troubled cities. Beilstein Journal of Organic Chemistry, 2015, 11, 2774-2784.	2.2	8
84	A Personal Journey across Fluorescent Sensing and Logic Associated with Polymers of Various Kinds. Polymers, 2019, 11, 1351.	4.5	8
85	2010: A Small Space Odyssey with Luminescent Molecules. Israel Journal of Chemistry, 2011, 51, 16-22.	2.3	7
86	Fluorescent logic systems for sensing and molecular computation: structureâ€“activity relationships in edge-detection. Faraday Discussions, 2015, 185, 337-346.	3.2	7
87	Precise Proton Mapping near Ionic Micellar Membranes with Fluorescent Photoinducedâ€Electronâ€Transfer Sensors. Chemistry - A European Journal, 2019, 25, 8522-8527.	3.3	7
88	What has supramolecular chemistry done for us?. Supramolecular Chemistry, 2016, 28, 201-203.	1.2	5
89	Recent developments in CO2 capture/storage/utilization with aromatic macrocycles. Carbon Capture Science & Technology, 2022, 4, 100058.	10.4	5
90	Luminescent Logic and Sensing. , 2005, , 307-315.		3

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91	Molecular logic and computing. , 2009, , 90-101.		1
92	AN INEXPENSIVE STIRRING DEVICE FOR THE â€˜MERRY-GO-ROUNDâ€™ PHOTOREACTOR FOR THE DETERMINATION OF REACTION QUANTUM YIELDS. Photochemistry and Photobiology, 1987, 46, 1021-1022.	2.5	0