Prabhat Kumar Singh

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4603776/publications.pdf

Version: 2024-02-01

103 papers	2,864 citations	126907 33 h-index	214800 47 g-index
103 all docs	103 docs citations	103 times ranked	1858 citing authors

#	Article	IF	Citations
1	Complexation of acridine orange by cucurbit[7]uril and Î²-cyclodextrin: photophysical effects and pKa shifts. Photochemical and Photobiological Sciences, 2008, 7, 408-414.	2.9	161
2	Viscosity Effect on the Ultrafast Bond Twisting Dynamics in an Amyloid Fibril Sensor: Thioflavin-T. Journal of Physical Chemistry B, 2010, 114, 5920-5927.	2.6	122
3	Ultrafast Bond Twisting Dynamics in Amyloid Fibril Sensor. Journal of Physical Chemistry B, 2010, 114, 2541-2546.	2.6	99
4	Ultrafast Torsional Dynamics of Protein Binding Dye Thioflavin-T in Nanoconfined Water Pool. Journal of Physical Chemistry B, 2009, 113, 8532-8538.	2.6	85
5	A highly fluorescent turn-on probe in the near-infrared region for albumin quantification in serum matrix. Chemical Communications, 2018, 54, 8383-8386.	4.1	77
6	Enzyme-based optical biosensors for organophosphate class of pesticide detection. Physical Chemistry Chemical Physics, 2020, 22, 15105-15119.	2.8	76
7	Contrasting Solvent Polarity Effect on the Photophysical Properties of Two Newly Synthesized Aminostyryl Dyes in the Lower and in the Higher Solvent Polarity Regions. Journal of Physical Chemistry A, 2010, 114, 4507-4519.	2.5	74
8	Confined ultrafast torsional dynamics of Thioflavin-T in a nanocavity. Physical Chemistry Chemical Physics, 2011, 13, 8008.	2.8	62
9	Fluorescent Hâ€Aggregates Hosted by a Charged Cyclodextrin Cavity. Chemistry - A European Journal, 2016, 22, 7394-7398.	3.3	58
10	Emissive H-Aggregates of an Ultrafast Molecular Rotor: A Promising Platform for Sensing Heparin. ACS Applied Materials & Interfaces, 2016, 8, 31505-31509.	8.0	52
11	Identifying the Bond Responsible for the Fluorescence Modulation in an Amyloid Fibril Sensor. Chemistry - A European Journal, 2010, 16, 9257-9263.	3.3	51
12	Time-Resolved Fluorescence and Small Angle Neutron Scattering Study in Pluronicsâ”Surfactant Supramolecular Assemblies. Journal of Physical Chemistry B, 2010, 114, 3818-3826.	2.6	50
13	Stimulus-Responsive Supramolecular Aggregate Assembly of Auramine O Templated by Sulfated Cyclodextrin. Journal of Physical Chemistry B, 2017, 121, 6208-6219.	2.6	50
14	A polyelectrolyte based ratiometric optical sensor for Arginine and Lysine. Sensors and Actuators B: Chemical, 2020, 303, 127182.	7.8	49
15	Supramolecular Dye Aggregate Assembly Enables Ratiometric Detection and Discrimination of Lysine and Arginine in Aqueous Solution. ACS Omega, 2017, 2, 8779-8787.	3.5	48
16	A supramolecule based fluorescence turn-on and ratiometric sensor for ATP in aqueous solution. Journal of Materials Chemistry B, 2020, 8, 1182-1190.	5.8	47
17	Ultrafast fluorescence spectroscopy reveals a dominant weakly-emissive population of fibril bound thioflavin-T. Chemical Communications, 2015, 51, 14042-14045.	4.1	46
18	Ultrafast torsional dynamics of Thioflavin-T in an anionic cyclodextrin cavity. Journal of Photochemistry and Photobiology A: Chemistry, 2015, 298, 40-48.	3.9	45

#	Article	IF	Citations
19	Modulation in the Solute Location in Block Copolymerâ^'Surfactant Supramolecular Assembly: A Time-resolved Fluorescence Study. Journal of Physical Chemistry B, 2009, 113, 1353-1359.	2.6	42
20	Dynamics under confinement: torsional dynamics of Auramine O in a nanocavity. RSC Advances, 2014, 4, 34992-35002.	3.6	42
21	Trypsin Detection Strategies: A Review. Critical Reviews in Analytical Chemistry, 2022, 52, 949-967.	3.5	42
22	Molecular Recognition Controlled Delivery of a Small Molecule from a Nanocarrier to Natural DNA. Journal of Physical Chemistry B, 2013, 117, 10370-10375.	2.6	40
23	PicoGreen: a better amyloid probe than Thioflavin-T. Chemical Communications, 2016, 52, 12163-12166.	4.1	40
24	Probing the DNAâ€“ionic liquid interaction using an ultrafast molecular rotor. Journal of Photochemistry and Photobiology A: Chemistry, 2012, 246, 16-22.	3.9	39
25	Fluorescence Spectroscopic Investigation To Identify the Micelle to Gel Transition of Aqueous Triblock Copolymer Solutions. Journal of Physical Chemistry B, 2009, 113, 5117-5127.	2.6	38
26	An efficient J-aggregate based fluorescence turn-on and ratiometric sensor for heparin. Sensors and Actuators B: Chemical, 2019, 301, 127089.	7.8	38
27	Effects of Block Size of Pluronic Polymers on the Water Structure in the Corona Region and Its Effect on the Electron Transfer Reactions. Journal of Physical Chemistry B, 2008, 112, 6363-6372.	2.6	37
28	A molecular rotor based ratiometric sensor for basic amino acids. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 188, 120-126.	3.9	37
29	A Nanoreactor for Tuning the Chemical Reactivity of a Solute. Journal of Physical Chemistry B, 2008, 112, 11447-11450.	2.6	35
30	Effect of Electrostatic Interaction on the Location of Molecular Probe in Polymerâ^'Surfactant Supramolecular Assembly: A Solvent Relaxation Study. Journal of Physical Chemistry B, 2008, 112, 7771-7777.	2.6	35
31	Ultrafast Electron Transfer Dynamics in Micellar Media Using Surfactant as the Intrinsic Electron Acceptor. Journal of Physical Chemistry B, 2010, 114, 10057-10065.	2.6	35
32	Ultrafast molecular rotor: an efficient sensor for premelting of natural DNA. Chemical Communications, 2012, 48, 5301.	4.1	35
33	Ratiometric fluorescence turn-on sensing of perrhenate anion, a non-radioactive surrogate of hazardous pertechnetate, in aqueous solution. Sensors and Actuators B: Chemical, 2018, 277, 205-209.	7.8	35
34	Aggregation induced emission of an anionic tetraphenylethene derivative for efficient protamine sensing. Journal of Molecular Liquids, 2020, 315, 113625.	4.9	35
35	Tuning of Intermolecular Electron Transfer Reaction by Modulating the Microenvironment Inside Copolymerâ^'Surfactant Supramolecular Assemblies. Journal of Physical Chemistry B, 2011, 115, 1638-1651.	2.6	33
36	An Ultrafast Molecularâ€Rotorâ€Based Fluorescent Turnâ€On Sensor for the Perrhenate Anion in Aqueous Solution. Chemistry - A European Journal, 2019, 25, 2035-2042.	3.3	33

#	Article	IF	Citations
37	Effect of donor orientation on ultrafast intermolecular electron transfer in coumarin-amine systems. Journal of Chemical Physics, 2008, 129, 114504.	3.0	32
38	Ultrafast Bimolecular Electron Transfer Dynamics in Micellar Media. Journal of Physical Chemistry B, 2008, 112, 6646-6652.	2.6	31
39	Evaluation of an Ultrafast Molecular Rotor, Auramine O, as a Fluorescent Amyloid Marker. Journal of Physical Chemistry B, 2016, 120, 10496-10507.	2.6	31
40	A styryl based fluorogenic probe with high affinity for a cyclodextrin derivative. Organic and Biomolecular Chemistry, 2019, 17, 6895-6904.	2.8	30
41	Non-covalent interaction of BODIPY-benzimidazole conjugate with bovine serum albuminâ€“A photophysical and molecular docking study. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 377, 220-227.	3.9	30
42	Stimulus-Responsive Supramolecular Hostâ€“Guest Assembly of a Cationic Pyrene Derivative with Sulfated Î²-Cyclodextrin. Langmuir, 2019, 35, 14628-14638.	3.5	29
43	Benzothiazoleâ€Based Neutral Ratiometric Fluorescence Sensor for Amyloid Fibrils. Chemistry - A European Journal, 2016, 22, 16505-16512.	3.3	28
44	A ratiometric scheme for the fluorescent detection of protamine, a heparin antidote. Journal of Molecular Liquids, 2020, 303, 112589.	4.9	28
45	An Ionâ€™s Perspective on the Molecular Motions of Nanoconfined Water: A Two-Dimensional Infrared Spectroscopy Study. Journal of Physical Chemistry B, 2013, 117, 9775-9784.	2.6	27
46	An AIEgenâ€“protamine assembly/disassembly based fluorescence turn-on probe for sensing alkaline phosphatase. Sensors and Actuators B: Chemical, 2021, 346, 130517.	7.8	27
47	Ultrafast Torsional Relaxation of Thioflavin-T in Tris(pentafluoroethyl)trifluorophosphate (FAP) Anion-Based Ionic Liquids. Journal of Physical Chemistry B, 2015, 119, 14252-14260.	2.6	25
48	On the Molecular Form of Amyloid Marker, Auramine O, in Human Insulin Fibrils. Journal of Physical Chemistry B, 2016, 120, 12474-12485.	2.6	25
49	An anionic tetraphenyl ethylene based simple and rapid fluorescent probe for detection of trypsin and paraoxon methyl. Journal of Molecular Liquids, 2021, 333, 115980.	4.9	25
50	A molecular rotor-based turn-on sensor probe for amyloid fibrils in the extreme near-infrared region. Chemical Communications, 2019, 55, 3907-3910.	4.1	24
51	Ultrafast torsional dynamics in nanoconfined water pool: Comparison between neutral and charged reverse micelles. Journal of Photochemistry and Photobiology A: Chemistry, 2012, 248, 42-49.	3.9	23
52	An exceptionally intense turn-on fluorescence sensor in the far-red region for common milk allergen, Î²-lactoglobulin. Sensors and Actuators B: Chemical, 2021, 327, 128864.	7.8	23
53	An ATP responsive fluorescent supramolecular assembly based on a polyelectrolyte and an AIE active tetraphenylethylene derivative. Organic and Biomolecular Chemistry, 2020, 18, 8414-8423.	2.8	21
54	Differential Hydration of Tricyanomethanide Observed by Time Resolved Vibrational Spectroscopy. Journal of Physical Chemistry B, 2013, 117, 4354-4364.	2.6	20

#	Article	IF	Citations
55	Basic Orange 21: A molecular rotor probe for fluorescence turn-on sensing of amyloid fibrils. Journal of Molecular Liquids, 2020, 303, 112618.	4.9	20
56	Origin of Ultrafast Excited State Dynamics of 1-Nitropyrene. Journal of Physical Chemistry A, 2011, 115, 10762-10766.	2.5	19
57	A nano-confined charged layer defies the principle of electrostatic interaction. Chemical Communications, 2011, 47, 6912.	4.1	19
58	An anionic polyelectrolyte induced aggregate assembly of Thioflavin-T: A prospective platform for Protamine sensing. International Journal of Biological Macromolecules, 2020, 164, 1174-1182.	7.5	19
59	A colorimetric and fluorometric based dual readout approach for effective heparin sensing. International Journal of Biological Macromolecules, 2021, 178, 536-546.	7.5	19
60	Quantitative Distinction between Competing Intramolecular Bond Twisting and Solvent Relaxation Dynamics: An Ultrafast Study. Journal of Physical Chemistry A, 2008, 112, 5598-5603.	2.5	18
61	Ultrafast molecular rotor based DNA sensor: An insight into the mode of interaction. Journal of Photochemistry and Photobiology A: Chemistry, 2014, 295, 17-25.	3.9	18
62	A simple and convenient choline oxidase inhibition based colorimetric biosensor for detection of organophosphorus class of pesticides. Journal of Molecular Liquids, 2022, 347, 118258.	4.9	17
63	A supramolecular assembly enables discrimination between metalloproteins and non-metalloproteins. Chemical Communications, 2018, 54, 4537-4540.	4.1	15
64	Host-Assisted Aggregation-Induced Emission of a Tetraphenylethylene Derivative and Its Responses toward External Stimuli. Journal of Physical Chemistry B, 2021, 125, 11122-11133.	2.6	15
65	Controlled Sequestration of DNA Intercalated Drug by Polymerâ€“Surfactant Supramolecular Assemblies. Journal of Physical Chemistry B, 2016, 120, 4143-4151.	2.6	14
66	A tetracationic aggregation induced emission-based probe for efficient and improved detection of Heparin. Sensors and Actuators B: Chemical, 2022, 353, 131016.	7.8	14
67	Optical Sensors for Detection of Amino Acids. Current Medicinal Chemistry, 2018, 25, 2272-2290.	2.4	13
68	Nanomaterial based advancement in the inorganic pyrophosphate detection methods in the last decade: A review. TrAC - Trends in Analytical Chemistry, 2022, 146, 116483.	11.4	13
69	Complexation of a cationic pyrene derivative with sulfobutylether substituted Î²-cyclodextrin: Towards a stimulus-responsive supramolecular material. Journal of Molecular Liquids, 2020, 305, 112840.	4.9	12
70	A cationic cyclodextrin assisted aggregation of an anionic pyrene derivative and its stimuli responsive behavior. Journal of Molecular Liquids, 2021, 321, 114499.	4.9	12
71	A dual intensity and lifetime based fluorescence sensor for perrhenate anion. Sensors and Actuators B: Chemical, 2021, 330, 129346.	7.8	12
72	A polyelectrolyte based supramolecular assembly for ratiometric sensing of ATP with very high discrimination from pyrophosphate. Journal of Molecular Liquids, 2021, 328, 115314.	4.9	12

#	Article	IF	Citations
73	A cyanine based dicationic molecular rotor probe for dual sensing of heparin. Journal of Molecular Liquids, 2021, 328, 115327.	4.9	12
74	A highly efficient and selective optical detection method for Heparin that works in 100% human serum. Sensors and Actuators B: Chemical, 2022, 359, 131613.	7.8	12
75	Proton Transfer Reaction Dynamics of Pyranine in DMSO/Water Mixtures. ChemPhysChem, 2018, 19, 198-207.	2.1	11
76	Does the degree of substitution on the cyclodextrin hosts impact their affinity towards guest binding?. Photochemical and Photobiological Sciences, 2020, 19, 956-965.	2.9	11
77	Poly(styrene-sulfonate) hosted Thioflavin-T aggregates: A turn-on and ratiometric sensing platform for ATP recognition. Dyes and Pigments, 2021, 194, 109577.	3.7	10
78	Ultrafast excited state dynamics of 1-nitropyrene: Effect of H-bonding. Journal of Photochemistry and Photobiology A: Chemistry, 2013, 271, 24-30.	3.9	9
79	Excited-State Proton Transfer on the Surface of a Therapeutic Protein, Protamine. Journal of Physical Chemistry B, 2017, 121, 10306-10317.	2.6	9
80	Polyanionic Cyclodextrin-Induced Supramolecular Assembly of a Cationic Tetraphenylethylene Derivative with Aggregation-Induced Emission. Journal of Physical Chemistry B, 2022, 126, 1147-1155.	2.6	9
81	A highly sensitive fluorescence â€œturn onâ€•detection of perrhenate Anion, a non-radioactive surrogate of hazardous pertechnetate anion. Sensors and Actuators B: Chemical, 2020, 323, 128675.	7.8	8
82	A cationic AIEgen and hexametaphosphate based simple and convenient fluorometric assay for alkaline phosphatase and its inhibitor. Organic and Biomolecular Chemistry, 2022, 20, 4599-4607.	2.8	8
83	pH Dependent Selfâ€Assembly of Singleâ€Pyreneâ€Armed Calix[4]arene: Modulation and Complexation withpâ€Sulfonatocalix[6]arene. ChemistrySelect, 2019, 4, 8542-8549.	1.5	7
84	Modulation of excited-state photodynamics of ESIPT probe 1â€²-hydroxy-2â€²-acetonaphthone (HAN) on interaction with bovine serum albumin. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 400, 112651.	3.9	7
85	A hemicyanine based fluorescence turn-on sensor for amyloid fibril detection in the far-red region. Journal of Molecular Liquids, 2021, 328, 115322.	4.9	7
86	How mobile is the water in the reverse micelles? A 2DIR study with an ultrasmall IR probe. Journal of Molecular Liquids, 2021, 327, 114819.	4.9	6
87	A Heparin based dual ratiometric sensor for Thrombin. International Journal of Biological Macromolecules, 2021, 167, 1371-1378.	7.5	6
88	An ultrafast molecular rotor based ternary complex in a nanocavity: a potential â€œturn onâ€• fluorescence sensor for the hydrocarbon chain. Physical Chemistry Chemical Physics, 2015, 17, 5691-5703.	2.8	5
89	Free volume dependence of an ionic molecular rotor in Fluoroalkylphosphate (FAP) based ionic liquids. Chemical Physics Letters, 2016, 644, 296-301.	2.6	5
90	A novel supramolecule-based fluorescence turn-on and ratiometric sensor for highly selective detection of glutathione over cystein and homocystein. Mikrochimica Acta, 2020, 187, 631.	5.0	5

#	Article	IF	Citations
91	Effect of counter-anions on the aggregation of Thioflavin-T. Physical Chemistry Chemical Physics, 2021, 23, 9948-9961.	2.8	5
92	Synthesis and photophysical properties of near infra-red absorbing BODIPy derivatives and their nanoaggregates. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 365, 1-6.	3.9	4
93	A molecular rotor based dual ratiometric sensor for heparinase. Dyes and Pigments, 2020, 181, 108528.	3.7	4
94	A unique supramolecular assembly between sulfated cyclodextrin, silver and melamine: Towards a fluorescence based dual wavelength detection approach for melamine. Journal of Photochemistry and Photobiology A: Chemistry, 2022, 428, 113862.	3.9	4
95	A molecular rotor based ratiometric detection scheme for aluminium ions in water. Journal of Photochemistry and Photobiology A: Chemistry, 2022, 433, 114145.	3.9	4
96	Sulfated-Î²-cyclodextrin templated aggregation of a metachromatic dye, Basic Orange 21: A photophysical investigation. Supramolecular Chemistry, 2021, 33, 460-474.	1.2	3
97	Dynamics in Tris(pentafluoroethyl)trifluorophosphate (FAP) Anion based Ionic Liquids: A 2D-IR study with Tungsten Hexacarbonyl. Journal of Molecular Liquids, 2022, , 119189.	4.9	3
98	Supramolecular tuning of thioflavin-T aggregation hosted by polystyrene sulfonate. Physical Chemistry Chemical Physics, 2021, 23, 14716-14724.	2.8	2
99	Supramolecular Control on the Optical Properties of a Dyeâ€Polyelectrolyte Assembly. ChemPhysChem, 2021, 22, 975-984.	2.1	2
100	Anionic Polyelectrolyte-Induced Aggregation of Basic Orange 21: A Clue toward Metachromasia. Journal of Physical Chemistry B, 2021, 125, 7033-7043.	2.6	2
101	Thioflavin T: A versatile optical probe for chemo and biosensing. Proceedings of the Indian National Science Academy, 2019, , .	1.4	1
102	Effect of fibrillation on the excited state dynamics of tryptophan in serum protein â€“ A time-resolved fluorescence study. Journal of Photochemistry and Photobiology A: Chemistry, 2015, 299, 73-79.	3.9	0
103	Reply to Comment on â€œEmissive H-Aggregates of an Ultrafast Molecular Rotor: A Promising Platform for Sensing Heparinâ€• ACS Applied Materials & Interfaces, 2021, 13, 50589-50590.	8.0	0