

Prabhat Kumar Singh

List of Publications by Year in descending order

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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	Trypsin Detection Strategies: A Review. <i>Critical Reviews in Analytical Chemistry</i> , 2022, 52, 949-967.	3.5	42
2	A tetracationic aggregation induced emission-based probe for efficient and improved detection of Heparin. <i>Sensors and Actuators B: Chemical</i> , 2022, 353, 131016.	7.8	14
3	Nanomaterial based advancement in the inorganic pyrophosphate detection methods in the last decade: A review. <i>TrAC - Trends in Analytical Chemistry</i> , 2022, 146, 116483.	11.4	13
4	A simple and convenient choline oxidase inhibition based colorimetric biosensor for detection of organophosphorus class of pesticides. <i>Journal of Molecular Liquids</i> , 2022, 347, 118258.	4.9	17
5	Polyanionic Cyclodextrin-Induced Supramolecular Assembly of a Cationic Tetraphenylethylene Derivative with Aggregation-Induced Emission. <i>Journal of Physical Chemistry B</i> , 2022, 126, 1147-1155.	2.6	9
6	A highly efficient and selective optical detection method for Heparin that works in 100% human serum. <i>Sensors and Actuators B: Chemical</i> , 2022, 359, 131613.	7.8	12
7	A unique supramolecular assembly between sulfated cyclodextrin, silver and melamine: Towards a fluorescence based dual wavelength detection approach for melamine. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2022, 428, 113862.	3.9	4
8	Dynamics in Tris(pentafluoroethyl)trifluorophosphate (FAP) Anion based Ionic Liquids: A 2D-IR study with Tungsten Hexacarbonyl. <i>Journal of Molecular Liquids</i> , 2022, , 119189.	4.9	3
9	A cationic AlEgen and hexametaphosphate based simple and convenient fluorometric assay for alkaline phosphatase and its inhibitor. <i>Organic and Biomolecular Chemistry</i> , 2022, 20, 4599-4607.	2.8	8
10	A molecular rotor based ratiometric detection scheme for aluminium ions in water. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2022, 433, 114145.	3.9	4
11	An exceptionally intense turn-on fluorescence sensor in the far-red region for common milk allergen, β -lactoglobulin. <i>Sensors and Actuators B: Chemical</i> , 2021, 327, 128864.	7.8	23
12	A cationic cyclodextrin assisted aggregation of an anionic pyrene derivative and its stimuli responsive behavior. <i>Journal of Molecular Liquids</i> , 2021, 321, 114499.	4.9	12
13	How mobile is the water in the reverse micelles? A 2DIR study with an ultrasmall IR probe. <i>Journal of Molecular Liquids</i> , 2021, 327, 114819.	4.9	6
14	A Heparin based dual ratiometric sensor for Thrombin. <i>International Journal of Biological Macromolecules</i> , 2021, 167, 1371-1378.	7.5	6
15	Supramolecular tuning of thioflavin-T aggregation hosted by polystyrene sulfonate. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 14716-14724.	2.8	2
16	Effect of counter-anions on the aggregation of Thioflavin-T. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 9948-9961.	2.8	5
17	A dual intensity and lifetime based fluorescence sensor for perrhenate anion. <i>Sensors and Actuators B: Chemical</i> , 2021, 330, 129346.	7.8	12
18	A polyelectrolyte based supramolecular assembly for ratiometric sensing of ATP with very high discrimination from pyrophosphate. <i>Journal of Molecular Liquids</i> , 2021, 328, 115314.	4.9	12

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19	A cyanine based dicationic molecular rotor probe for dual sensing of heparin. <i>Journal of Molecular Liquids</i> , 2021, 328, 115327.	4.9	12
20	Supramolecular Control on the Optical Properties of a Dye-Polyelectrolyte Assembly. <i>ChemPhysChem</i> , 2021, 22, 975-984.	2.1	2
21	A hemicyanine based fluorescence turn-on sensor for amyloid fibril detection in the far-red region. <i>Journal of Molecular Liquids</i> , 2021, 328, 115322.	4.9	7
22	A colorimetric and fluorometric based dual readout approach for effective heparin sensing. <i>International Journal of Biological Macromolecules</i> , 2021, 178, 536-546.	7.5	19
23	Anionic Polyelectrolyte-Induced Aggregation of Basic Orange 21: A Clue toward Metachromasia. <i>Journal of Physical Chemistry B</i> , 2021, 125, 7033-7043.	2.6	2
24	An anionic tetraphenyl ethylene based simple and rapid fluorescent probe for detection of trypsin and paraoxon methyl. <i>Journal of Molecular Liquids</i> , 2021, 333, 115980.	4.9	25
25	Poly(styrene-sulfonate) hosted Thioflavin-T aggregates: A turn-on and ratiometric sensing platform for ATP recognition. <i>Dyes and Pigments</i> , 2021, 194, 109577.	3.7	10
26	An AIEgen-protamine assembly/disassembly based fluorescence turn-on probe for sensing alkaline phosphatase. <i>Sensors and Actuators B: Chemical</i> , 2021, 346, 130517.	7.8	27
27	Host-Assisted Aggregation-Induced Emission of a Tetraphenylethylene Derivative and Its Responses toward External Stimuli. <i>Journal of Physical Chemistry B</i> , 2021, 125, 11122-11133.	2.6	15
28	Reply to Comment on "Emissive H-Aggregates of an Ultrafast Molecular Rotor: A Promising Platform for Sensing Heparin". <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 50589-50590.	8.0	0
29	Sulfated- β -cyclodextrin templated aggregation of a metachromatic dye, Basic Orange 21: A photophysical investigation. <i>Supramolecular Chemistry</i> , 2021, 33, 460-474.	1.2	3
30	A polyelectrolyte based ratiometric optical sensor for Arginine and Lysine. <i>Sensors and Actuators B: Chemical</i> , 2020, 303, 127182.	7.8	49
31	A supramolecule based fluorescence turn-on and ratiometric sensor for ATP in aqueous solution. <i>Journal of Materials Chemistry B</i> , 2020, 8, 1182-1190.	5.8	47
32	An ATP responsive fluorescent supramolecular assembly based on a polyelectrolyte and an AIE active tetraphenylethylene derivative. <i>Organic and Biomolecular Chemistry</i> , 2020, 18, 8414-8423.	2.8	21
33	A highly sensitive fluorescence "turn on" detection of perhenate Anion, a non-radioactive surrogate of hazardous pertechnetate anion. <i>Sensors and Actuators B: Chemical</i> , 2020, 323, 128675.	7.8	8
34	An anionic polyelectrolyte induced aggregate assembly of Thioflavin-T: A prospective platform for Protamine sensing. <i>International Journal of Biological Macromolecules</i> , 2020, 164, 1174-1182.	7.5	19
35	Basic Orange 21: A molecular rotor probe for fluorescence turn-on sensing of amyloid fibrils. <i>Journal of Molecular Liquids</i> , 2020, 303, 112618.	4.9	20
36	A novel supramolecule-based fluorescence turn-on and ratiometric sensor for highly selective detection of glutathione over cystein and homocystein. <i>Mikrochimica Acta</i> , 2020, 187, 631.	5.0	5

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37	Modulation of excited-state photodynamics of ESIPT probe 1-hydroxy-2-acetonaphthone (HAN) on interaction with bovine serum albumin. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2020, 400, 112651.	3.9	7
38	A molecular rotor based dual ratiometric sensor for heparinase. <i>Dyes and Pigments</i> , 2020, 181, 108528.	3.7	4
39	Does the degree of substitution on the cyclodextrin hosts impact their affinity towards guest binding?. <i>Photochemical and Photobiological Sciences</i> , 2020, 19, 956-965.	2.9	11
40	Enzyme-based optical biosensors for organophosphate class of pesticide detection. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 15105-15119.	2.8	76
41	Complexation of a cationic pyrene derivative with sulfobutylether substituted β -cyclodextrin: Towards a stimulus-responsive supramolecular material. <i>Journal of Molecular Liquids</i> , 2020, 305, 112840.	4.9	12
42	Aggregation induced emission of an anionic tetraphenylethene derivative for efficient protamine sensing. <i>Journal of Molecular Liquids</i> , 2020, 315, 113625.	4.9	35
43	A ratiometric scheme for the fluorescent detection of protamine, a heparin antidote. <i>Journal of Molecular Liquids</i> , 2020, 303, 112589.	4.9	28
44	pH Dependent Self-Assembly of Single-Pyrene-Armed Calix[4]arene: Modulation and Complexation with β -Sulfonatocalix[6]arene. <i>ChemistrySelect</i> , 2019, 4, 8542-8549.	1.5	7
45	Stimulus-Responsive Supramolecular Host-Guest Assembly of a Cationic Pyrene Derivative with Sulfated β -Cyclodextrin. <i>Langmuir</i> , 2019, 35, 14628-14638.	3.5	29
46	An efficient J-aggregate based fluorescence turn-on and ratiometric sensor for heparin. <i>Sensors and Actuators B: Chemical</i> , 2019, 301, 127089.	7.8	38
47	A styryl based fluorogenic probe with high affinity for a cyclodextrin derivative. <i>Organic and Biomolecular Chemistry</i> , 2019, 17, 6895-6904.	2.8	30
48	A molecular rotor-based turn-on sensor probe for amyloid fibrils in the extreme near-infrared region. <i>Chemical Communications</i> , 2019, 55, 3907-3910.	4.1	24
49	Non-covalent interaction of BODIPY-benzimidazole conjugate with bovine serum albumin: A photophysical and molecular docking study. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2019, 377, 220-227.	3.9	30
50	An Ultrafast Molecular-Rotor-Based Fluorescent Turn-On Sensor for the Perrhenate Anion in Aqueous Solution. <i>Chemistry - A European Journal</i> , 2019, 25, 2035-2042.	3.3	33
51	Thioflavin T: A versatile optical probe for chemo and biosensing. <i>Proceedings of the Indian National Science Academy</i> , 2019, , .	1.4	1
52	A supramolecular assembly enables discrimination between metalloproteins and non-metalloproteins. <i>Chemical Communications</i> , 2018, 54, 4537-4540.	4.1	15
53	A molecular rotor based ratiometric sensor for basic amino acids. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2018, 188, 120-126.	3.9	37
54	Proton Transfer Reaction Dynamics of Pyranine in DMSO/Water Mixtures. <i>ChemPhysChem</i> , 2018, 19, 198-207.	2.1	11

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55	Ratiometric fluorescence turn-on sensing of perrhenate anion, a non-radioactive surrogate of hazardous pertechnetate, in aqueous solution. <i>Sensors and Actuators B: Chemical</i> , 2018, 277, 205-209.	7.8	35
56	A highly fluorescent turn-on probe in the near-infrared region for albumin quantification in serum matrix. <i>Chemical Communications</i> , 2018, 54, 8383-8386.	4.1	77
57	Synthesis and photophysical properties of near infra-red absorbing BODIPy derivatives and their nanoaggregates. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2018, 365, 1-6.	3.9	4
58	Optical Sensors for Detection of Amino Acids. <i>Current Medicinal Chemistry</i> , 2018, 25, 2272-2290.	2.4	13
59	Stimulus-Responsive Supramolecular Aggregate Assembly of Auramine O Templated by Sulfated Cyclodextrin. <i>Journal of Physical Chemistry B</i> , 2017, 121, 6208-6219.	2.6	50
60	Excited-State Proton Transfer on the Surface of a Therapeutic Protein, Protamine. <i>Journal of Physical Chemistry B</i> , 2017, 121, 10306-10317.	2.6	9
61	Supramolecular Dye Aggregate Assembly Enables Ratiometric Detection and Discrimination of Lysine and Arginine in Aqueous Solution. <i>ACS Omega</i> , 2017, 2, 8779-8787.	3.5	48
62	Fluorescent H ⁺ Aggregates Hosted by a Charged Cyclodextrin Cavity. <i>Chemistry - A European Journal</i> , 2016, 22, 7394-7398.	3.3	58
63	On the Molecular Form of Amyloid Marker, Auramine O, in Human Insulin Fibrils. <i>Journal of Physical Chemistry B</i> , 2016, 120, 12474-12485.	2.6	25
64	Benzothiazole-Based Neutral Ratiometric Fluorescence Sensor for Amyloid Fibrils. <i>Chemistry - A European Journal</i> , 2016, 22, 16505-16512.	3.3	28
65	Evaluation of an Ultrafast Molecular Rotor, Auramine O, as a Fluorescent Amyloid Marker. <i>Journal of Physical Chemistry B</i> , 2016, 120, 10496-10507.	2.6	31
66	PicoGreen: a better amyloid probe than Thioflavin-T. <i>Chemical Communications</i> , 2016, 52, 12163-12166.	4.1	40
67	Emissive H ⁺ Aggregates of an Ultrafast Molecular Rotor: A Promising Platform for Sensing Heparin. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 31505-31509.	8.0	52
68	Controlled Sequestration of DNA Intercalated Drug by Polymer-Surfactant Supramolecular Assemblies. <i>Journal of Physical Chemistry B</i> , 2016, 120, 4143-4151.	2.6	14
69	Free volume dependence of an ionic molecular rotor in Fluoroalkylphosphate (FAP) based ionic liquids. <i>Chemical Physics Letters</i> , 2016, 644, 296-301.	2.6	5
70	An ultrafast molecular rotor based ternary complex in a nanocavity: a potential τ on fluorescence sensor for the hydrocarbon chain. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 5691-5703.	2.8	5
71	Ultrafast fluorescence spectroscopy reveals a dominant weakly-emissive population of fibril bound thioflavin-T. <i>Chemical Communications</i> , 2015, 51, 14042-14045.	4.1	46
72	Ultrafast Torsional Relaxation of Thioflavin-T in Tris(pentafluoroethyl)trifluorophosphate (FAP) Anion-Based Ionic Liquids. <i>Journal of Physical Chemistry B</i> , 2015, 119, 14252-14260.	2.6	25

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73	Ultrafast torsional dynamics of Thioflavin-T in an anionic cyclodextrin cavity. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2015, 298, 40-48.	3.9	45
74	Effect of fibrillation on the excited state dynamics of tryptophan in serum protein – A time-resolved fluorescence study. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2015, 299, 73-79.	3.9	0
75	Dynamics under confinement: torsional dynamics of Auramine O in a nanocavity. <i>RSC Advances</i> , 2014, 4, 34992-35002.	3.6	42
76	Ultrafast molecular rotor based DNA sensor: An insight into the mode of interaction. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2014, 295, 17-25.	3.9	18
77	Ultrafast excited state dynamics of 1-nitropyrene: Effect of H-bonding. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2013, 271, 24-30.	3.9	9
78	Molecular Recognition Controlled Delivery of a Small Molecule from a Nanocarrier to Natural DNA. <i>Journal of Physical Chemistry B</i> , 2013, 117, 10370-10375.	2.6	40
79	An Ion's Perspective on the Molecular Motions of Nanoconfined Water: A Two-Dimensional Infrared Spectroscopy Study. <i>Journal of Physical Chemistry B</i> , 2013, 117, 9775-9784.	2.6	27
80	Differential Hydration of Tricyanomethanide Observed by Time Resolved Vibrational Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2013, 117, 4354-4364.	2.6	20
81	Ultrafast torsional dynamics in nanoconfined water pool: Comparison between neutral and charged reverse micelles. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2012, 248, 42-49.	3.9	23
82	Ultrafast molecular rotor: an efficient sensor for premelting of natural DNA. <i>Chemical Communications</i> , 2012, 48, 5301.	4.1	35
83	Probing the DNA-ionic liquid interaction using an ultrafast molecular rotor. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2012, 246, 16-22.	3.9	39
84	Confined ultrafast torsional dynamics of Thioflavin-T in a nanocavity. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 8008.	2.8	62
85	Tuning of Intermolecular Electron Transfer Reaction by Modulating the Microenvironment Inside Copolymer-Surfactant Supramolecular Assemblies. <i>Journal of Physical Chemistry B</i> , 2011, 115, 1638-1651.	2.6	33
86	Origin of Ultrafast Excited State Dynamics of 1-Nitropyrene. <i>Journal of Physical Chemistry A</i> , 2011, 115, 10762-10766.	2.5	19
87	A nano-confined charged layer defies the principle of electrostatic interaction. <i>Chemical Communications</i> , 2011, 47, 6912.	4.1	19
88	Identifying the Bond Responsible for the Fluorescence Modulation in an Amyloid Fibril Sensor. <i>Chemistry - A European Journal</i> , 2010, 16, 9257-9263.	3.3	51
89	Time-Resolved Fluorescence and Small Angle Neutron Scattering Study in Pluronic-Surfactant Supramolecular Assemblies. <i>Journal of Physical Chemistry B</i> , 2010, 114, 3818-3826.	2.6	50
90	Ultrafast Electron Transfer Dynamics in Micellar Media Using Surfactant as the Intrinsic Electron Acceptor. <i>Journal of Physical Chemistry B</i> , 2010, 114, 10057-10065.	2.6	35

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91	Ultrafast Bond Twisting Dynamics in Amyloid Fibril Sensor. <i>Journal of Physical Chemistry B</i> , 2010, 114, 2541-2546.	2.6	99
92	Viscosity Effect on the Ultrafast Bond Twisting Dynamics in an Amyloid Fibril Sensor: Thioflavin-T. <i>Journal of Physical Chemistry B</i> , 2010, 114, 5920-5927.	2.6	122
93	Contrasting Solvent Polarity Effect on the Photophysical Properties of Two Newly Synthesized Aminostyryl Dyes in the Lower and in the Higher Solvent Polarity Regions. <i>Journal of Physical Chemistry A</i> , 2010, 114, 4507-4519.	2.5	74
94	Fluorescence Spectroscopic Investigation To Identify the Micelle to Gel Transition of Aqueous Triblock Copolymer Solutions. <i>Journal of Physical Chemistry B</i> , 2009, 113, 5117-5127.	2.6	38
95	Ultrafast Torsional Dynamics of Protein Binding Dye Thioflavin-T in Nanoconfined Water Pool. <i>Journal of Physical Chemistry B</i> , 2009, 113, 8532-8538.	2.6	85
96	Modulation in the Solute Location in Block Copolymer-Surfactant Supramolecular Assembly: A Time-resolved Fluorescence Study. <i>Journal of Physical Chemistry B</i> , 2009, 113, 1353-1359.	2.6	42
97	Complexation of acridine orange by cucurbit[7]uril and β -cyclodextrin: photophysical effects and pKa shifts. <i>Photochemical and Photobiological Sciences</i> , 2008, 7, 408-414.	2.9	161
98	Effects of Block Size of Pluronic Polymers on the Water Structure in the Corona Region and Its Effect on the Electron Transfer Reactions. <i>Journal of Physical Chemistry B</i> , 2008, 112, 6363-6372.	2.6	37
99	Quantitative Distinction between Competing Intramolecular Bond Twisting and Solvent Relaxation Dynamics: An Ultrafast Study. <i>Journal of Physical Chemistry A</i> , 2008, 112, 5598-5603.	2.5	18
100	Ultrafast Bimolecular Electron Transfer Dynamics in Micellar Media. <i>Journal of Physical Chemistry B</i> , 2008, 112, 6646-6652.	2.6	31
101	A Nanoreactor for Tuning the Chemical Reactivity of a Solute. <i>Journal of Physical Chemistry B</i> , 2008, 112, 11447-11450.	2.6	35
102	Effect of Electrostatic Interaction on the Location of Molecular Probe in Polymer-Surfactant Supramolecular Assembly: A Solvent Relaxation Study. <i>Journal of Physical Chemistry B</i> , 2008, 112, 7771-7777.	2.6	35
103	Effect of donor orientation on ultrafast intermolecular electron transfer in coumarin-amine systems. <i>Journal of Chemical Physics</i> , 2008, 129, 114504.	3.0	32