

# Arindam Banerjee

## List of Publications by Year in descending order

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100  
papers

5,555  
citations

71102

41  
h-index

82547

72  
g-index

101  
all docs

101  
docs citations

101  
times ranked

5902  
citing authors

#	ARTICLE	IF	CITATIONS
1	Facile Synthesis of Water-Soluble Fluorescent Silver Nanoclusters and Hg <sup>II</sup> Sensing. <i>Chemistry of Materials</i> , 2010, 22, 4364-4371.	6.7	352
2	Self-assembling tripeptide based hydrogels and their use in removal of dyes from waste-water. <i>Soft Matter</i> , 2009, 5, 3452.	2.7	240
3	pH-Responsive, Bolaamphiphile-Based Smart Metallo-Hydrogels as Potential Dye-Adsorbing Agents, Water Purifier, and Vitamin B12 Carrier. <i>Chemistry of Materials</i> , 2007, 19, 1633-1639.	6.7	219
4	A new aromatic amino acid based organogel for oil spill recovery. <i>Journal of Materials Chemistry</i> , 2012, 22, 11658.	6.7	218
5	Multi-stimuli responsive self-healing metallo-hydrogels: tuning of the gel recovery property. <i>Chemical Communications</i> , 2014, 50, 2356-2359.	4.1	176
6	Short Peptide-Based Hydrogel: A Template for the In Situ Synthesis of Fluorescent Silver Nanoclusters by Using Sunlight. <i>Chemistry - A European Journal</i> , 2010, 16, 13698-13705.	3.3	171
7	Graphene Oxide-Based Hydrogels to Make Metal Nanoparticle-Containing Reduced Graphene Oxide-Based Functional Hybrid Hydrogels. <i>ACS Applied Materials &amp; Interfaces</i> , 2012, 4, 5472-5482.	8.0	171
8	Amino acid based smart hydrogel: formation, characterization and fluorescence properties of silver nanoclusters within the hydrogel matrix. <i>Soft Matter</i> , 2011, 7, 5300.	2.7	165
9	Tetrapeptide-Based Hydrogels: for Encapsulation and Slow Release of an Anticancer Drug at Physiological pH. <i>Journal of Physical Chemistry B</i> , 2009, 113, 11787-11792.	2.6	163
10	Short peptide based hydrogels: incorporation of graphene into the hydrogel. <i>Soft Matter</i> , 2011, 7, 9259.	2.7	151
11	Smart oligopeptide gels: in situ formation and stabilization of gold and silver nanoparticles within supramolecular organogel networks. <i>Chemical Communications</i> , 2006, , 2816.	4.1	148
12	Assembly of an Injectable Noncytotoxic Peptide-Based Hydrogelator for Sustained Release of Drugs. <i>Langmuir</i> , 2014, 30, 929-936.	3.5	143
13	Single amino acid based thixotropic hydrogel formation and pH-dependent morphological change of gel nanofibers. <i>Soft Matter</i> , 2013, 9, 4198.	2.7	142
14	Multicomponent hydrogels from enantiomeric amino acid derivatives: helical nanofibers, handedness and self-sorting. <i>Soft Matter</i> , 2011, 7, 8913.	2.7	133
15	A Gel-Based Trihybrid System Containing Nanofibers, Nanosheets, and Nanoparticles: Modulation of the Rheological Property and Catalysis. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 5041-5045.	13.8	129
16	Amphiphilic Peptide-Based Supramolecular, Noncytotoxic, Stimuli-Responsive Hydrogels with Antibacterial Activity. <i>Biomacromolecules</i> , 2017, 18, 3621-3629.	5.4	127
17	The as-prepared gold cluster-based fluorescent sensor for the selective detection of As <sup>III</sup> ions in aqueous solution. <i>Nanoscale</i> , 2012, 4, 2734.	5.6	113
18	Peptide based hydrogels for cancer drug release: modulation of stiffness, drug release and proteolytic stability of hydrogels by incorporating $\alpha$ -amino acid residue(s). <i>Chemical Communications</i> , 2016, 52, 5045-5048.	4.1	106

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19	A Peptide-Based Mechano-sensitive, Proteolytically Stable Hydrogel with Remarkable Antibacterial Properties. <i>Langmuir</i> , 2016, 32, 1836-1845.	3.5	99
20	Fabrication of Luminescent CdS Nanoparticles on Short- $\alpha$ -Peptide-Based Hydrogel Nanofibers: Tuning of Optoelectronic Properties. <i>Chemistry - A European Journal</i> , 2009, 15, 6902-6909.	3.3	92
21	A tripeptide-based self-shrinking hydrogel for waste-water treatment: removal of toxic organic dyes and lead (Pb <sup>2+</sup> ) ions. <i>Chemical Communications</i> , 2017, 53, 5910-5913.	4.1	85
22	Pentapeptide based organogels: the role of adjacently located phenylalanine residues in gel formation. <i>Soft Matter</i> , 2008, 4, 1430.	2.7	65
23	Assembly of naphthalenediimide conjugated peptides: aggregation induced changes in fluorescence. <i>Chemical Communications</i> , 2013, 49, 6891.	4.1	59
24	Tailor-made design of J- or H-aggregated naphthalenediimide-based gels and remarkable fluorescence turn on/off behaviour depending on solvents. <i>Chemical Communications</i> , 2015, 51, 780-783.	4.1	58
25	Time-dependent gel to gel transformation of a peptide based supramolecular gelator. <i>Soft Matter</i> , 2015, 11, 4944-4951.	2.7	57
26	Peptide-Based Gel in Environmental Remediation: Removal of Toxic Organic Dyes and Hazardous Pb <sup>2+</sup> and Cd <sup>2+</sup> Ions from Wastewater and Oil Spill Recovery. <i>Langmuir</i> , 2020, 36, 12942-12953.	3.5	56
27	Size tuning of Au nanoparticles formed by electron beam irradiation of Au <sub>25</sub> quantum clusters anchored within and outside of dipeptide nanotubes. <i>Journal of Materials Chemistry</i> , 2009, 19, 8456.	6.7	55
28	A new hydrogel from an amino acid-based perylene bisimide and its semiconducting, photo-switching behaviour. <i>RSC Advances</i> , 2012, 2, 11053.	3.6	53
29	Synthesis of multiple shaped gold nanoparticles using wet chemical method by different dendritic peptides at room temperature. <i>Journal of Materials Chemistry</i> , 2009, 19, 3457.	6.7	52
30	Preparation of multi-coloured different sized fluorescent gold clusters from blue to NIR, structural analysis of the blue emitting Au <sub>7</sub> cluster, and cell-imaging by the NIR gold cluster. <i>Nanoscale</i> , 2015, 7, 1912-1920.	5.6	51
31	Formation of Hybrid Hydrogels Consisting of Tripeptide and Different Silver Nanoparticle-Capped Ligands: Modulation of the Mechanical Strength of Gel Phase Materials. <i>Journal of Physical Chemistry B</i> , 2012, 116, 12235-12244.	2.6	50
32	First crystallographic signature of amyloid-like fibril forming $\beta$ -sheet assemblage from a tripeptide with non-coded amino acids. <i>Chemical Communications</i> , 2001, , 1946-1947.	4.1	49
33	Modulation of Fluorescence Resonance Energy Transfer Efficiency for White Light Emission from a Series of Stilbene-Perylene Based Donor-Acceptor Pair. <i>Journal of Physical Chemistry C</i> , 2013, 117, 23178-23189.	3.1	46
34	Tuning of Silver Cluster Emission from Blue to Red Using a Bio-Active Peptide in Water. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 4050-4056.	8.0	46
35	Red-Emitting Copper Nanoclusters: From Bulk-Scale Synthesis to Catalytic Reduction. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 1998-2007.	6.7	46
36	Charge-Transfer Complex Formation in Gelation: The Role of Solvent Molecules with Different Electron-Donating Capacities. <i>Chemistry - A European Journal</i> , 2014, 20, 5721-5726.	3.3	44

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37	The role of protecting groups in the formation of organogels through a nano-fibrillar network formed by self-assembling terminally protected tripeptides. <i>Tetrahedron</i> , 2007, 63, 7432-7442.	1.9	43
38	Self-Assembling Peptide-Based Hydrogel: Regulation of Mechanical Stiffness and Thermal Stability and 3D Cell Culture of Fibroblasts. <i>ACS Applied Bio Materials</i> , 2019, 2, 5235-5244.	4.6	43
39	Self-assembling dipeptide-based nontoxic vesicles as carriers for drugs and other biologically important molecules. <i>Organic and Biomolecular Chemistry</i> , 2011, 9, 6610.	2.8	42
40	Two-Component Fluorescent-Semiconducting Hydrogel from Naphthalene Diimide-Appended Peptide with Long-Chain Amines: Variation in Thermal and Mechanical Strengths of Gels. <i>Langmuir</i> , 2016, 32, 13226-13233.	3.5	42
41	Heterogeneity and Stability of Helical Conformations in Peptides: A Crystallographic and NMR Studies of a Model Heptapeptide. <i>Journal of the American Chemical Society</i> , 1996, 118, 9477-9483.	13.7	41
42	A synthetic tripeptide as organogelator: elucidation of gelation mechanism Electronic supplementary information (ESI) available: the 500 MHz 1-D <sup>1</sup> H NMR spectrum, the 500 MHz <sup>1</sup> H- <sup>1</sup> H DQF COSY spectrum of the tripeptide in CDCl <sub>3</sub> and the MALDI-MS spectrum of the tripeptide. See <a href="http://www.rsc.org/suppdata/p2/b1/b111598g/">http://www.rsc.org/suppdata/p2/b1/b111598g/</a> . <i>Perkin Transactions II RSC</i> , 2002, , 1177-1186.	1.1	41
43	Functionalized single walled carbon nanotube containing amino acid based hydrogel: a hybrid nanomaterial. <i>RSC Advances</i> , 2012, 2, 2105.	3.6	41
44	Omega amino acids in peptide design: incorporation into helices. <i>Biopolymers</i> , 1996, 39, 769-777.	2.4	40
45	pH-Sensitive Nanostructural Transformation of a Synthetic Self-Assembling Water-Soluble Tripeptide: Nanotube to Nanovesicle. <i>Chemistry of Materials</i> , 2007, 19, 6150-6157.	6.7	40
46	Fluorescence from an H-aggregated naphthalenediimide based peptide: photophysical and computational investigation of this rare phenomenon. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 30398-30403.	2.8	40
47	Concentration Dependent Transformation of Oligopeptide based Nanovesicles to Nanotubes and an Application of Nanovesicles. <i>Chemistry - an Asian Journal</i> , 2009, 4, 1817-1823.	3.3	36
48	Peptide-based ambidextrous bifunctional gelator: applications in oil spill recovery and removal of toxic organic dyes for waste water management. <i>Interface Focus</i> , 2017, 7, 20160128.	3.0	36
49	A dipeptide-based superhydrogel: Removal of toxic dyes and heavy metal ions from waste water. <i>Biopolymers</i> , 2017, 108, e22915.	2.4	36
50	Amino-Acid-Based Metallo-Hydrogel That Acts Like an Esterase. <i>ACS Applied Bio Materials</i> , 2018, 1, 1717-1724.	4.6	35
51	Size specific emission in peptide capped gold quantum clusters with tunable photoswitching behavior. <i>Nanoscale</i> , 2017, 9, 4419-4429.	5.6	32
52	Carbon nanodots, Ru nanodots and hybrid nanodots: preparation and catalytic properties. <i>Journal of Materials Chemistry A</i> , 2015, 3, 15074-15081.	10.3	31
53	Amino acid-based amphiphilic hydrogels: metal ion induced tuning of mechanical and thermal stability. <i>RSC Advances</i> , 2017, 7, 14461-14465.	3.6	30
54	Î±-Aminoisobutyric acid modified protected analogues of Î²-amyloid residue 17-20: a change from sheet to helix. <i>Tetrahedron</i> , 2006, 62, 6370-6378.	1.9	27

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55	Peptide-Based Hydrogels as a Scaffold for In Situ Synthesis of Metal Nanoparticles: Catalytic Activity of the Nanohybrid System. <i>ChemNanoMat</i> , 2018, 4, 882-887.	2.8	27
56	Solid state and solution conformations of a helical peptide with a central gly-gly segment. , 1998, 38, 515-526.		26
57	Organogelators from self-assembling peptide based dendrimers: structural and morphological features. <i>Tetrahedron</i> , 2008, 64, 175-185.	1.9	26
58	Luminescent Naphthalene Diimide-Based Peptide in Aqueous Medium and in Solid State: Rewritable Fluorescent Color Code. <i>ACS Omega</i> , 2018, 3, 2174-2182.	3.5	25
59	A bolaamphiphilic amino acid appended photo-switching supramolecular gel and tuning of photo-switching behaviour. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 6041.	2.8	24
60	Blue Emitting Gold Cluster formation from Gold Nanorods: Selective and Sensitive Detection of Iron(III) ions in Aqueous Medium. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 1628-1637.	6.7	24
61	I-Ala Modified Analogues of Amyloid Î <sup>2</sup> -Peptide Residue 17-20: Self-Association and Amyloid-like Fibril Formation. <i>International Journal of Peptide Research and Therapeutics</i> , 2006, 12, 341-348.	1.9	23
62	Carbon nanodot-induced gelation of a histidine-based amphiphile: application as a fluorescent ink, and modulation of gel stiffness. <i>Chemical Communications</i> , 2018, 54, 4341-4344.	4.1	23
63	A fluorescent gold-cluster containing a new three-component system for white light emission through a cascade of energy transfer. <i>Journal of Materials Chemistry C</i> , 2014, 2, 6574.	5.5	22
64	Peptide design. Helix-helix motifs in synthetic sequences. <i>Journal of the Chemical Society Perkin Transactions II</i> , 1997, , 2087-2094.	0.9	21
65	Ambidextrous molecules: Cylindrical peptide structures formed by fusing left- and right-handed helices. , 1998, 39, 279-285.		21
66	Selective binding of hydrogen chloride and its trapping through supramolecular gelation. <i>Chemical Communications</i> , 2014, 50, 6917.	4.1	19
67	Different Color Emissive Copper Nanoclusters for Cancer Cell Imaging. <i>ChemNanoMat</i> , 2017, 3, 808-814.	2.8	19
68	Assembly of amino acid containing naphthalene diimide-based molecules: the role of intervening amide groups in self-assembly, gelation, optical and semiconducting properties. <i>Soft Matter</i> , 2019, 15, 3018-3026.	2.7	19
69	Low Molecular Weight Organogelators from Self-assembling Synthetic Tripeptides With Coded Amino Acids: Morphological, Structural, Thermodynamic and Spectroscopic Investigations. <i>Supramolecular Chemistry</i> , 2006, 18, 645-655.	1.2	18
70	Modulation of the optoelectronic properties of a donor-acceptor conjugate between a cationic polythiophene and a peptide appended perylene bisimide amphiphile. <i>Journal of Materials Chemistry C</i> , 2020, 8, 3748-3757.	5.5	18
71	Sunlight induced unique morphological transformation in graphene based nanohybrids: appearance of a new tetra-nanohybrid and tuning of functional property of these nanohybrids. <i>Soft Matter</i> , 2015, 11, 4226-4234.	2.7	17
72	TiO <sub>2</sub> Nanoparticles Incorporated Peptide Appended Perylene Bisimide-Based Nanohybrid System: Enhancement of Photo-Switching Behavior. <i>Journal of Physical Chemistry C</i> , 2017, 121, 5428-5435.	3.1	17

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73	Solid state and solution conformations of a helical peptide with a central glygly segment. <i>Biopolymers</i> , 1996, 38, 515-526.	2.4	17
74	Water soluble synthetic dipeptide-based biodegradable nanoporous materials. <i>Green Chemistry</i> , 2009, 11, 1139.	9.0	15
75	The aging effect on the enhancement of thermal stability, mechanical stiffness and fluorescence properties of histidine-appended naphthalenediimide based two-component hydrogels. <i>Soft Matter</i> , 2020, 16, 10106-10114.	2.7	15
76	Aggregation-Induced Modulation of the Optoelectronic Properties of Carbon Dots and Removal of Cd <sup>2+</sup> Ions with Sustainable Use in Photocurrent Generation. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 12912-12921.	6.7	15
77	Intrinsic Amyloidogenic Behavior of Terminally Protected Alzheimer's A $\beta$ 21 Peptide: Self-Aggregation and Amyloid-Like Fibril Formation. <i>International Journal of Peptide Research and Therapeutics</i> , 2007, 13, 439-446.	1.9	14
78	Modulation of Semiconducting Behavior and a Change in Morphology upon Gelation of a Peptide Appended Naphthalenediimide. <i>Journal of Physical Chemistry C</i> , 2019, 123, 20558-20566.	3.1	14
79	A Self-Assembled Peptide-Appended Naphthalene Diimide: A Fluorescent Switch for Sensing Acid and Base Vapors. <i>ChemPlusChem</i> , 2019, 84, 1673-1680.	2.8	14
80	Stepwise Self-assembly of a Tripeptide from Molecular Dimers to Supramolecular $\beta$ -sheets in Crystals and Amyloid-like Fibrils in the Solid State. <i>Supramolecular Chemistry</i> , 2004, 16, 331-335.	1.2	13
81	Solvent-induced dynamic single-crystal-to-single-crystal transformation of a synthetic peptide-based cyclic compound. <i>CrystEngComm</i> , 2009, 11, 756.	2.6	13
82	Omega amino acids in peptide design: incorporation into helices. <i>Biopolymers</i> , 1996, 39, 769-777.	2.4	13
83	Carbon dot mediated trihybrid formation by reduction of GO and <i>in situ</i> gold nanocluster fabrication: photo-switching behaviour and degradation of chemical warfare agent stimulants. <i>Journal of Materials Chemistry C</i> , 2020, 8, 15735-15741.	5.5	12
84	Supramolecular $\beta$ -Sheet and Nanofibril Formation by Self-assembling Tripeptides Containing an N-terminally Located $\beta$ -Aminobutyric acid Residue. <i>Supramolecular Chemistry</i> , 2006, 18, 455-464.	1.2	11
85	Tuning of the optoelectronic properties of peptide-appended core-substituted naphthalenediimides: the role of self-assembly of two positional isomers. <i>Soft Matter</i> , 2021, 17, 7168-7176.	2.7	9
86	Stimuli responsive multicolour fluorescence emission in carbon nanodots and application in metal free hydrogen evolution from water. <i>Nanoscale Advances</i> , 2021, 3, 611-617.	4.6	9
87	Development of Polythiophene-Tripeptide Covalent Conjugates Showing Excellent Structure-Dependent Photophysical and Photocurrent Properties. <i>Journal of Physical Chemistry C</i> , 2021, 125, 17518-17529.	3.1	8
88	Solvent-Directed Transformation of the Self-assembly and Optical Property of a Peptide-Appended Core-Substituted Naphthalenediimide and Selective Detection of Nitrite Ions in an Aqueous Medium. <i>Langmuir</i> , 2021, 37, 9577-9587.	3.5	8
89	Yellow-Emitting Carbon Dots for Selective Fluorescence Imaging of Lipid Droplets in Living Cells. <i>Langmuir</i> , 2022, 38, 8829-8836.	3.5	8
90	Peptide stabilized Ag@Au Core-Shell Nanoparticles: Synthesis, Variation of Shell Thickness, and Catalysis. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2014, 640, 1205-1211.	1.2	7

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91	Conformational variability of Gly-Gly segments in peptides: A comparison of the crystal structures of an acyclic pentapeptide and an octapeptide. <i>Biopolymers</i> , 1997, 41, 331-336.	2.4	6
92	Self-Assembling Synthetic Oligopeptide-Based Gelators. <i>Macromolecular Symposia</i> , 2006, 241, 14-22.	0.7	6
93	Title is missing!. <i>International Journal of Peptide Research and Therapeutics</i> , 2000, 7, 353-358.	0.1	5
94	Macroporous Materials from Self-Assembling Synthetic Cyclic Peptide-Based Compounds and Deposition of Dipeptide-Capped Gold Nanoparticles on the Surfaces. <i>Macromolecular Chemistry and Physics</i> , 2009, 210, 1422-1432.	2.2	5
95	Tuning of Optoelectronic Properties in Nanohybrids of Peptide-Appended Perylenebisimides and Carbon Nanodots. <i>Journal of Physical Chemistry C</i> , 2022, 126, 5906-5915.	3.1	5
96	Copper Nanoclusters for Catalytic Carbon-Carbon and Carbon-Nitrogen Bond Formations. <i>ACS Applied Nano Materials</i> , 0, , .	5.0	3
97	Template-directed nucleation and growth of CdS nanocrystal: the role of helical and nonhelical nanofibers on their shape and size. <i>Journal of Nanoparticle Research</i> , 2010, 12, 713-718.	1.9	2
98	Introduction to peptide soft materials. <i>Soft Matter</i> , 2020, 16, 9998-10000.	2.7	2
99	5-Membered NH...N hydrogen bonded molecular scaffold in a model dipeptide containing 3-aminophenylacetic acid: Crystal and solution conformations. <i>International Journal of Peptide Research and Therapeutics</i> , 2000, 7, 353-358.	0.1	0
100	A unique example of a pseudo-peptide containing noncoded amino acids self-assembling into a supramolecular $\beta^2$ -sheet-like structure in crystals. <i>International Journal of Peptide Research and Therapeutics</i> , 2001, 8, 61-67.	0.1	0