

Naba K Dutta

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9479372/publications.pdf>

Version: 2024-02-01

123
papers

4,134
citations

87723

38
h-index

138251

58
g-index

126
all docs

126
docs citations

126
times ranked

5102
citing authors

#	ARTICLE	IF	CITATIONS
1	Work Function Engineering of Graphene. <i>Nanomaterials</i> , 2014, 4, 267-300.	1.9	240
2	Graphene inks for printed flexible electronics: Graphene dispersions, ink formulations, printing techniques and applications. <i>Advances in Colloid and Interface Science</i> , 2018, 261, 41-61.	7.0	177
3	Additive Manufacturing of Polymer Materials: Progress, Promise and Challenges. <i>Polymers</i> , 2021, 13, 753.	2.0	156
4	Composite Polymer Electrolyte Containing Ionic Liquid and Functionalized Polyhedral Oligomeric Silsesquioxanes for Anhydrous PEM Applications. <i>ACS Applied Materials & Interfaces</i> , 2009, 1, 1173-1182.	4.0	122
5	Synthesis and characterization of novel citric acid-based polyester elastomers. <i>Polymer</i> , 2009, 50, 1682-1691.	1.8	116
6	3D Bioprinted Nanocellulose-Based Hydrogels for Tissue Engineering Applications: A Brief Review. <i>Polymers</i> , 2019, 11, 898.	2.0	107
7	A Genetically Engineered Protein Responsive to Multiple Stimuli. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 4428-4431.	7.2	93
8	Synthesis and characterization of methacrylate phospho-silicate hybrid for thin film applications. <i>Polymer</i> , 2007, 48, 7078-7086.	1.8	92
9	Novel Organic-Inorganic Hybrids with Increased Water Retention for Elevated Temperature Proton Exchange Membrane Application. <i>Chemistry of Materials</i> , 2008, 20, 6857-6870.	3.2	84
10	Tunable Biomimetic Hydrogels from Silk Fibroin and Nanocellulose. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 2375-2389.	3.2	84
11	Facile and rapid ruthenium mediated photo-crosslinking of Bombyx mori silk fibroin. <i>Journal of Materials Chemistry B</i> , 2014, 2, 6259-6270.	2.9	80
12	Nanofiltration for Arsenic Removal: Challenges, Recent Developments, and Perspectives. <i>Nanomaterials</i> , 2020, 10, 1323.	1.9	76
13	Organic-Inorganic Hybrid from Ionomer via Sol-Gel Reaction. <i>Chemistry of Materials</i> , 2001, 13, 3644-3652.	3.2	74
14	3D Printable Electrically Conductive Hydrogel Scaffolds for Biomedical Applications: A Review. <i>Polymers</i> , 2021, 13, 474.	2.0	74
15	High resolution solid-state n.m.r. investigation of the filler-rubber interaction; 1. High speed 1H magic-angle spinning n.m.r. spectroscopy in carbon black filled styrene-butadiene rubber. <i>Polymer</i> , 1994, 35, 4293-4299.	1.8	73
16	Bioprintable tough hydrogels for tissue engineering applications. <i>Advances in Colloid and Interface Science</i> , 2020, 281, 102163.	7.0	73
17	Interfacial Interactions in Aprotic Ionic Liquid Based Protonic Membrane and Its Correlation with High Temperature Conductivity and Thermal Properties. <i>Langmuir</i> , 2009, 25, 9240-9251.	1.6	72
18	Resilin-mimetics as a smart biomaterial platform for biomedical applications. <i>Nature Communications</i> , 2021, 12, 149.	5.8	69

#	ARTICLE	IF	CITATIONS
19	Magnesium Alloys With Tunable Interfaces as Bone Implant Materials. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 564.	2.0	68
20	The effect of hydration on molecular chain mobility and the viscoelastic behavior of resilin-mimetic protein-based hydrogels. <i>Biomaterials</i> , 2011, 32, 8462-8473.	5.7	66
21	Evolution of the Interfacial Structure of a Catalyst Ink with the Quality of the Dispersing Solvent: A Contrast Variation Small-Angle and Ultrasmall-Angle Neutron Scattering Investigation. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 9934-9946.	4.0	65
22	Emerging Corrosion Inhibitors for Interfacial Coating. <i>Coatings</i> , 2017, 7, 217.	1.2	63
23	In situ modification of Nafion® membranes with phospho-silicate for improved water retention and proton conduction. <i>Journal of Membrane Science</i> , 2009, 333, 50-58.	4.1	58
24	Tough Photocrosslinked Silk Fibroin/Graphene Oxide Nanocomposite Hydrogels. <i>Langmuir</i> , 2018, 34, 9238-9251.	1.6	54
25	Influence of ethylene-propylene ratio on the thermal degradation behaviour of EPDM elastomers. <i>Thermochimica Acta</i> , 2001, 367-368, 185-193.	1.2	53
26	Mechanism and kinetics of the isothermal thermodegradation of ethylene-propylene-diene (EPDM) elastomers. <i>Polymer Degradation and Stability</i> , 2003, 80, 525-531.	2.7	53
27	XPS and bioactivity study of the bisphosphonate pamidronate adsorbed onto plasma sprayed hydroxyapatite coatings. <i>Applied Surface Science</i> , 2006, 253, 2644-2651.	3.1	53
28	A pH-responsive interface derived from resilin-mimetic protein Rec1-resilin. <i>Biomaterials</i> , 2010, 31, 4434-4446.	5.7	53
29	Fluoro-silsesquioxane-urethane Hybrid for Thin Film Applications. <i>ACS Applied Materials & Interfaces</i> , 2009, 1, 336-347.	4.0	50
30	Fabrication of highly elastic resilin/silk fibroin based hydrogel by rapid photo-crosslinking reaction. <i>Journal of Materials Chemistry B</i> , 2015, 3, 6576-6579.	2.9	50
31	Self-organization, interfacial interaction and photophysical properties of gold nanoparticle complexes derived from resilin-mimetic fluorescent protein rec1-resilin. <i>Biomaterials</i> , 2011, 32, 2786-2796.	5.7	46
32	Colour formation in poly(ethylene terephthalate) during melt processing. <i>Polymer Degradation and Stability</i> , 2006, 91, 875-885.	2.7	44
33	Multi-responsive biomaterials and nanobioconjugates from resilin-like protein polymers. <i>Journal of Materials Chemistry B</i> , 2014, 2, 5936-5947.	2.9	44
34	Robust and Tunable Hybrid Hydrogels from Photo-Cross-Linked Soy Protein Isolate and Regenerated Silk Fibroin. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 9257-9271.	3.2	44
35	Effects of types of fillers on the molecular relaxation characteristics, dynamic mechanical, and physical properties of rubber vulcanizates. <i>Journal of Applied Polymer Science</i> , 1992, 44, 1635-1648.	1.3	43
36	An16-resilin: An advanced multi-stimuli-responsive resilin-mimetic protein polymer. <i>Acta Biomaterialia</i> , 2014, 10, 4768-4777.	4.1	43

#	ARTICLE	IF	CITATIONS
37	Physical approaches for fabrication of organized nanostructure of resilin-mimetic elastic protein rec1-resilin. <i>Biomaterials</i> , 2009, 30, 4868-4876.	5.7	41
38	Generic relaxation spectra of solid polymers. I. Development of spectral distribution model and its application to stress relaxation of polypropylene. <i>Journal of Applied Polymer Science</i> , 1997, 66, 1101-1115.	1.3	40
39	Graphene-Based Inks for Printing of Planar Micro-Supercapacitors: A Review. <i>Materials</i> , 2019, 12, 978.	1.3	40
40	Molecular Level Stabilization of Poly(ethylene terephthalate) with Nanostructured Open Cage Trisilanolisobutyl-POSS. <i>Macromolecules</i> , 2007, 40, 265-272.	2.2	38
41	Structural evolution of photocrosslinked silk fibroin and silk fibroin-based hybrid hydrogels: A small angle and ultra-small angle scattering investigation. <i>International Journal of Biological Macromolecules</i> , 2018, 114, 998-1007.	3.6	35
42	Poly[octanediol- <i>co</i> -(citric acid)- <i>co</i> -(sebacic acid)] elastomers: novel bio-elastomers for tissue engineering. <i>Polymer International</i> , 2011, 60, 333-343.	1.6	34
43	Structural ensembles reveal intrinsic disorder for the multi-stimuli responsive bio-mimetic protein Rec1-resilin. <i>Scientific Reports</i> , 2015, 5, 10896.	1.6	34
44	Adsorption of bisphosphonate onto hydroxyapatite using a novel co-precipitation technique for bone growth enhancement. <i>Journal of Biomedical Materials Research - Part A</i> , 2006, 79A, 271-281.	2.1	32
45	Polymeric Ionic Liquid Nanoparticle Emulsions as a Corrosion Inhibitor in Anticorrosion Coatings. <i>ACS Omega</i> , 2016, 1, 29-40.	1.6	31
46	Separator Membrane from Crosslinked Poly(Vinyl Alcohol) and Poly(Methyl Vinyl Ether- <i>alt</i> -Maleic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.9	29
47	MALDI-TOF MS and DIOS-MS Investigation of the Degradation and Discoloration of Poly(ethylene) Tj ETQq1 1 0,784314 rgBT /Overl	2.2	28
48	Electrochemical performance of sol-gel derived phospho-silicate-methacrylate hybrid coatings. <i>Journal of Electroanalytical Chemistry</i> , 2010, 641, 28-34.	1.9	28
49	Facile Fabrication of Polymerizable Ionic Liquid Based-Gel Beads via Thiol-ene Chemistry. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 17298-17306.	4.0	28
50	Composite Electrolyte Membranes from Partially Fluorinated Polymer and Hyperbranched, Sulfonated Polysulfone. <i>Nanomaterials</i> , 2014, 4, 1-18.	1.9	27
51	Biomimetic protein-based elastomeric hydrogels for biomedical applications. <i>Polymer International</i> , 2014, 63, 1545-1557.	1.6	27
52	Mixed-Matrix Membrane Fabrication for Water Treatment. <i>Membranes</i> , 2021, 11, 557.	1.4	27
53	Inorganic modification of block copolymer for medium temperature proton exchange membrane application. <i>Journal of Membrane Science</i> , 2010, 351, 168-177.	4.1	26
54	Near Superhydrophobic Fibrous Scaffold for Endothelialization: Fabrication, Characterization and Cellular Activities. <i>Biomacromolecules</i> , 2013, 14, 3850-3860.	2.6	25

#	ARTICLE	IF	CITATIONS
55	Engineering DN hydrogels from regenerated silk fibroin and poly(N-vinylcaprolactam). <i>Journal of Materials Chemistry B</i> , 2016, 4, 5519-5533.	2.9	25
56	Poly(ionic liquid)-Stabilized Graphene Nanoinks for Scalable 3D Printing of Graphene Aerogels. <i>ACS Applied Nano Materials</i> , 2020, 3, 11608-11619.	2.4	23
57	Tunable Thermoresponsiveness of Resilin via Coassembly with Rigid Biopolymers. <i>Langmuir</i> , 2015, 31, 8882-8891.	1.6	22
58	Effects of Crowding and Environment on the Evolution of Conformational Ensembles of the Multi-Stimuli-Responsive Intrinsically Disordered Protein, Rec1-Resilin: A Small-Angle Scattering Investigation. <i>Journal of Physical Chemistry B</i> , 2016, 120, 6490-6503.	1.2	22
59	Induced insolubility of electrospun poly(N-vinylcaprolactam) fibres through hydrogen bonding with Tannic acid. <i>Polymer</i> , 2016, 87, 194-201.	1.8	22
60	Mechanism of solvent entrapment within the network scaffolding in organogels: thermodynamic and kinetic investigations. <i>Polymer International</i> , 2003, 52, 1095-1107.	1.6	21
61	Bulk heterojunction organic photovoltaics from water-processable nanomaterials and their facile fabrication approaches. <i>Advances in Colloid and Interface Science</i> , 2016, 235, 56-69.	7.0	21
62	Palladium-catalyzed phosphonation of SEBS block copolymer. <i>Journal of Polymer Science Part A</i> , 2008, 46, 5431-5441.	2.5	20
63	Polyoctanediol Citrate/Sebacate Bioelastomer Films: Surface Morphology, Chemistry and Functionality. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2010, 21, 237-251.	1.9	20
64	The effect of carbon black concentration on the dynamic mechanical properties of bromobutyl rubber. <i>Journal of Materials Science</i> , 1991, 26, 177-188.	1.7	19
65	Perspective on Constructing Cellulose-Hydrogel-Based Gut-Like Bioreactors for Growth and Delivery of Multiple-Strain Probiotic Bacteria. <i>Journal of Agricultural and Food Chemistry</i> , 2021, 69, 4946-4959.	2.4	19
66	High-Resolution Solid State NMR Investigation of the Filler-Rubber Interaction: Part III. Investigation on the Structure and Formation Mechanism of Carbon Gel in the Carbon Black-Filled Styrene-Butadiene Rubber. <i>Rubber Chemistry and Technology</i> , 2001, 74, 260-280.	0.6	18
67	Interfacial Interaction and Morphology of EVOH and Ionomer Blends by Scanning Thermal Microscopy and Its Correlation with Barrier Characteristics. <i>Langmuir</i> , 2008, 24, 5464-5473.	1.6	18
68	Engineering Interaction between Bone Marrow Derived Endothelial Cells and Electrospun Surfaces for Artificial Vascular Graft Applications. <i>Biomacromolecules</i> , 2014, 15, 1276-1287.	2.6	18
69	Sulfonated Thiophene Derivative Stabilized Aqueous Poly(3-hexylthiophene):Phenyl-C ₆₁ -butyric Acid Methyl Ester Nanoparticle Dispersion for Organic Solar Cell Applications. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 44116-44125.	4.0	18
70	Interaction of Platelets with Poly(vinylidene fluoride-co-hexafluoropropylene) Electrospun Surfaces. <i>Biomacromolecules</i> , 2014, 15, 744-755.	2.6	17
71	Polyelectrolyte Gels: Fundamentals, Fabrication and Applications. <i>Gels</i> , 2021, 7, 148.	2.1	17
72	FTIR and NMR Studies on Crosslinking Reaction between Chlorosulfonated Polyethylene and Epoxidized Natural Rubber. <i>Rubber Chemistry and Technology</i> , 1993, 66, 230-241.	0.6	16

#	ARTICLE	IF	CITATIONS
73	Silk fibroins in multiscale dimensions for diverse applications. RSC Advances, 2020, 10, 33227-33247.	1.7	16
74	Nanostructure Evolution in High-Temperature Perfluorosulfonic Acid Ionomer Membrane by Small-Angle X-ray Scattering. Langmuir, 2010, 26, 19073-19083.	1.6	15
75	A Sustainable Biomineralization Approach for the Synthesis of Highly Fluorescent Ultra-Small Pt Nanoclusters. Biosensors, 2019, 9, 128.	2.3	15
76	Microroughness induced biomimetic coating for biodegradation control of magnesium. Materials Science and Engineering C, 2021, 121, 111811.	3.8	15
77	3D Printable Soy/Silk Hybrid Hydrogels for Tissue Engineering Applications. Biomacromolecules, 2021, 22, 3668-3678.	2.6	15
78	Influence of large static deformations on the dynamic mechanical properties of bromobutyl rubber vulcanizates: Part I. Effect of carbon black loading. Polymer Testing, 1990, 9, 3-13.	2.3	14
79	X-ray photoelectron spectroscopy study of the growth kinetics of biomimetically grown hydroxyapatite thin-film coatings. Applied Surface Science, 2010, 256, 7178-7185.	3.1	14
80	Engineering a Bioactive Hybrid Coating for <i>In Vitro</i> Corrosion Control of Magnesium and Its Alloy. ACS Applied Bio Materials, 2021, 4, 5542-5555.	2.3	14
81	Effect of composition on the solution rheology of stearyl methacrylate-co-styrene-co-vinyl pyrrolidinone in paraffinic base oil. Polymer Engineering and Science, 2004, 44, 736-748.	1.5	13
82	Plasma-polymerized perfluoro(methylcyclohexane) coating on ethylene propylene diene elastomer surface: Effect of plasma processing condition on the deposition kinetics, morphology and surface energy of the film. Thin Solid Films, 2005, 491, 123-132.	0.8	13
83	Perfluoro(methylcyclohexane) plasma polymer thin film: Growth, surface morphology, and properties investigated by scanning thermal microscopy. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 1392-1400.	2.4	13
84	A multi-responsive intrinsically disordered protein (IDP)-directed green synthesis of fluorescent gold nanoclusters. Journal of Materials Chemistry B, 2015, 3, 6580-6586.	2.9	13
85	Rheological behavior of highly filled ethylene propylene diene rubber compounds. Polymer Engineering and Science, 2000, 40, 1065-1073.	1.5	12
86	Effects of neutralization on the structure and properties of an ionomer. Journal of Applied Polymer Science, 2012, 124, 2908-2918.	1.3	12
87	Novel Thiol-Ene Hybrid Coating for Metal Protection. Coatings, 2016, 6, 17.	1.2	12
88	Emerging bioadhesives: from traditional bioactive and bioinert to a new biomimetic protein-based approach. Advances in Colloid and Interface Science, 2021, 296, 102521.	7.0	12
89	Fabrication and characterisation of an electrospun tubular 3D scaffold platform of poly(vinylidene fluoride) for tissue engineering. Biomaterials Science, Polymer Edition, 2014, 25, 2023-2041.	1.9	10
90	Novel dendritic-poly(urethane-urea) hybrid thin films from hydrogen bond rich dendrons. Polymer, 2014, 55, 5132-5139.	1.8	10

#	ARTICLE	IF	CITATIONS
91	Benzene physical and chemical organogels: Effect of network scaffolding on the thermodynamic behavior of entrapped solvent molecules. <i>Journal of Applied Polymer Science</i> , 2004, 94, 1253-1264.	1.3	9
92	Methodological advances and challenges in probiotic bacteria production: Ongoing strategies and future perspectives. <i>Biochemical Engineering Journal</i> , 2021, 176, 108199.	1.8	9
93	The influence of curing systems on the properties of bromobutyl rubber: Part 2—Effect of concentration of curing resin on the dynamic mechanical properties. <i>Polymer Degradation and Stability</i> , 1990, 30, 231-256.	2.7	8
94	Anticorrosive interfacial coatings for metallic substrates. <i>Surface Innovations</i> , 2013, 1, 112-137.	1.4	8
95	Tuning the Hierarchical Structure and Resilience of Resilin-like Polypeptide Hydrogels Using Graphene Oxide. <i>ACS Applied Bio Materials</i> , 2020, 3, 8688-8697.	2.3	8
96	In Vitro Corrosion Resistance of a Layer-by-Layer Engineered Hybrid Coating on ZK60 Magnesium Alloy. <i>Sustainability</i> , 2022, 14, 2459.	1.6	8
97	Miscibility Studies in Blends of Bromobutyl Rubber and Natural Rubber. <i>Journal of Elastomers and Plastics</i> , 1993, 25, 158-179.	0.7	7
98	Surface tailoring of an ethylene propylene diene elastomeric terpolymer via plasma-polymerized coating of tetramethyldisiloxane. <i>Polymer International</i> , 2005, 54, 513-525.	1.6	7
99	Osteoblast Biocompatibility on Poly(octanediol citrate)/Sebacate Elastomers with Controlled Wettability. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2010, 21, 1039-1050.	1.9	7
100	Water-Reprocessable, Reformable, and Ecofriendly Sustainable Material Based on Disulfide-Cross-Linked Polyethyleneimine. <i>ACS Omega</i> , 2017, 2, 3036-3042.	1.6	7
101	Influence of curing systems on the properties of bromobutyl rubber: Part III—Effect of different types of curing systems on the cure characteristics, physical properties and thermo-oxidative degradation characteristics. <i>Polymer Degradation and Stability</i> , 1992, 36, 73-80.	2.7	6
102	Platinum Catalyst Nanoparticles from Directed Deposition in Functional Block Copolymers. <i>Advanced Materials</i> , 2008, 20, 1819-1824.	11.1	6
103	Hydrocarbon Gels: Rheological Investigation of Structure. <i>ACS Symposium Series</i> , 2002, , 190-204.	0.5	5
104	Physical organogels: mechanism and kinetics of evaporation of the solvents entrapped within network scaffolding. <i>Thermochimica Acta</i> , 2005, 427, 207-219.	1.2	5
105	Effect of plasticizer concentration on the hysteresis, tear strength and stress-relaxation characteristics of black-loaded rubber vulcanizate. <i>Colloid and Polymer Science</i> , 1991, 269, 331-342.	1.0	4
106	Ionomer—silica hybrids via sol—gel reaction. <i>Polymer</i> , 2005, 46, 4013-4022.	1.8	4
107	Novel nanocomposites and hybrids for lubricating coating applications. <i>Tribology and Interface Engineering Series</i> , 2008, , 501-542.	0.0	4
108	Systematic study of interfacial interactions between clays and an ionomer. <i>Journal of Applied Polymer Science</i> , 2010, 117, 3395-3405.	1.3	4

#	ARTICLE	IF	CITATIONS
109	Microporosity engineered printable silk/graphene hydrogels and their cytocompatibility evaluations. <i>Materials Today Advances</i> , 2022, 14, 100233.	2.5	4
110	Electrospun Composite Nanofiltration Membranes for Arsenic Removal. <i>Polymers</i> , 2022, 14, 1980.	2.0	4
111	Prediction of Viscoelastic Behaviour of Thermorheologically Complex Polymeric Materials. <i>Journal of Reinforced Plastics and Composites</i> , 2001, 20, 399-408.	1.6	3
112	Novel nanocomposites and hybrids for high-temperature lubricating coating applications. , 2013, , 717-778.		3
113	Environment-induced self-assembly in phase separated block copolymer systems: A SANS investigation. <i>Physica B: Condensed Matter</i> , 2006, 385-386, 773-775.	1.3	2
114	Novel rhodanine based molecular acceptor for organic solar cells. <i>EPJ Photovoltaics</i> , 2017, 8, 80402.	0.8	2
115	Effect of polymerized ionic liquid based gel inhibitor on electrochemical performance of self-assembled nanophase coating. <i>Progress in Organic Coatings</i> , 2018, 120, 143-152.	1.9	2
116	Molecular structure development in silsesquioxane-urethane thin film hybrids: A small angle neutron scattering investigation. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48772.	1.3	2
117	Solvent effects on the kinetics of gelation and the crosslink density of polysiloxane gels. <i>Silicon Chemistry</i> , 2005, 2, 223-233.	0.8	1
118	Self-Assembly and Supramolecular Assembly in Nanophase Separated Polymers and Thin Films. <i>Nanostructure Science and Technology</i> , 2008, , 220-304.	0.1	1
119	Tailoring the ionic association and microstructure of ionomers with various metal salts. <i>Journal of Applied Polymer Science</i> , 2012, 126, E130.	1.3	1
120	Effect of Carbon Black Concentration on the Micro Mechanism of Fracture of Rubber Vulcanizates. <i>Journal of Elastomers and Plastics</i> , 1990, 22, 136-151.	0.7	0
121	Designing superhydrophobic surfaces using fluorosilsesquioxane-urethane hybrid and porous silicon gradients. , 2008, , .		0
122	Interfacial Engineering of fullerene using thiophene for solution processable solar cell: Effect of thiophenated fullerene on the miscibility with poly(3-hexylthiophene). <i>Procedia Engineering</i> , 2017, 215, 219-225.	1.2	0
123	Nanostructure Evolution of Biomimetic Hydrogel from Silk Fibroin and Poly(<i>N</i> -Vinylcaprolactam): A Small Angle Neutron Scattering Study. <i>ACS Symposium Series</i> , 2018, , 71-89.	0.5	0