

Naba K Dutta

List of Publications by Year in descending order

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docs citations

126
times ranked

5102
citing authors

#	ARTICLE	IF	CITATIONS
1	In Vitro Corrosion Resistance of a Layer-by-Layer Engineered Hybrid Coating on ZK60 Magnesium Alloy. Sustainability, 2022, 14, 2459.	1.6	8
2	Microporosity engineered printable silk/graphene hydrogels and their cytocompatibility evaluations. Materials Today Advances, 2022, 14, 100233.	2.5	4
3	Electrospun Composite Nanofiltration Membranes for Arsenic Removal. Polymers, 2022, 14, 1980.	2.0	4
4	Resilin-mimetics as a smart biomaterial platform for biomedical applications. Nature Communications, 2021, 12, 149.	5.8	69
5	Microroughness induced biomimetic coating for biodegradation control of magnesium. Materials Science and Engineering C, 2021, 121, 111811.	3.8	15
6	3D Printable Electrically Conductive Hydrogel Scaffolds for Biomedical Applications: A Review. Polymers, 2021, 13, 474.	2.0	74
7	Additive Manufacturing of Polymer Materials: Progress, Promise and Challenges. Polymers, 2021, 13, 753.	2.0	156
8	Perspective on Constructing Cellulose-Hydrogel-Based Gut-Like Bioreactors for Growth and Delivery of Multiple-Strain Probiotic Bacteria. Journal of Agricultural and Food Chemistry, 2021, 69, 4946-4959.	2.4	19
9	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
10	Mixed-Matrix Membrane Fabrication for Water Treatment. Membranes, 2021, 11, 557.	1.4	27
11	3D Printable Soy/Silk Hybrid Hydrogels for Tissue Engineering Applications. Biomacromolecules, 2021, 22, 3668-3678.	2.6	15
12	Polyelectrolyte Gels: Fundamentals, Fabrication and Applications. Gels, 2021, 7, 148.	2.1	17
13	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
14	Methodological advances and challenges in probiotic bacteria production: Ongoing strategies and future perspectives. Biochemical Engineering Journal, 2021, 176, 108199.	1.8	9
15	Molecular structure development in silsesquioxane-urethane thin film hybrids: A small-angle neutron scattering investigation. Journal of Applied Polymer Science, 2020, 137, 48772.	1.3	2
16	Nanofiltration for Arsenic Removal: Challenges, Recent Developments, and Perspectives. Nanomaterials, 2020, 10, 1323.	1.9	76
17	Tuning the Hierarchical Structure and Resilience of Resilin-like Polypeptide Hydrogels Using Graphene Oxide. ACS Applied Bio Materials, 2020, 3, 8688-8697.	2.3	8
18	Silk fibroins in multiscale dimensions for diverse applications. RSC Advances, 2020, 10, 33227-33247.	1.7	16

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19	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
20	Magnesium Alloys With Tunable Interfaces as Bone Implant Materials. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 564.	2.0	68
21	Tunable Biomimetic Hydrogels from Silk Fibroin and Nanocellulose. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 2375-2389.	3.2	84
22	Bioprintable tough hydrogels for tissue engineering applications. <i>Advances in Colloid and Interface Science</i> , 2020, 281, 102163.	7.0	73
23	A Sustainable Biomineralization Approach for the Synthesis of Highly Fluorescent Ultra-Small Pt Nanoclusters. <i>Biosensors</i> , 2019, 9, 128.	2.3	15
24	3D Bioprinted Nanocellulose-Based Hydrogels for Tissue Engineering Applications: A Brief Review. <i>Polymers</i> , 2019, 11, 898.	2.0	107
25	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
26	Graphene-Based Inks for Printing of Planar Micro-Supercapacitors: A Review. <i>Materials</i> , 2019, 12, 978.	1.3	40
27	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
28	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
29	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
30	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
31	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
32	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
33	Tough Photocrosslinked Silk Fibroin/Graphene Oxide Nanocomposite Hydrogels. <i>Langmuir</i> , 2018, 34, 9238-9251.	1.6	54
34	Water-Reprocessable, Reformable, and Ecofriendly Sustainable Material Based on Disulfide-Cross-Linked Polyethyleneimine. <i>ACS Omega</i> , 2017, 2, 3036-3042.	1.6	7
35	Novel rhodanine based molecular acceptor for organic solar cells. <i>EPJ Photovoltaics</i> , 2017, 8, 80402.	0.8	2
36	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

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37	Emerging Corrosion Inhibitors for Interfacial Coating. <i>Coatings</i> , 2017, 7, 217.	1.2	63
38	Novel Thiol-Ene Hybrid Coating for Metal Protection. <i>Coatings</i> , 2016, 6, 17.	1.2	12
39	Polymeric Ionic Liquid Nanoparticle Emulsions as a Corrosion Inhibitor in Anticorrosion Coatings. <i>ACS Omega</i> , 2016, 1, 29-40.	1.6	31
40	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
41	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
42	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
43	Induced insolubility of electrospun poly(N-vinylcaprolactam) fibres through hydrogen bonding with Tannic acid. <i>Polymer</i> , 2016, 87, 194-201.	1.8	22
44	Separator Membrane from Crosslinked Poly(Vinyl Alcohol) and Poly(Methyl Vinyl Ether-alt-Maleic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.9	29
45	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
46	Tunable Thermoresponsiveness of Resilin via Coassembly with Rigid Biopolymers. <i>Langmuir</i> , 2015, 31, 8882-8891.	1.6	22
47	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
48	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
49	A multi-responsive intrinsically disordered protein (IDP)-directed green synthesis of fluorescent gold nanoclusters. <i>Journal of Materials Chemistry B</i> , 2015, 3, 6580-6586.	2.9	13
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	Fabrication and characterisation of an electrospun tubular 3D scaffold platform of poly(vinylidene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 <i>Biomaterials Science, Polymer Edition</i> , 2014, 25, 2023-2041.	1.9	10
53	Multi-responsive biomaterials and nanobioconjugates from resilin-like protein polymers. <i>Journal of Materials Chemistry B</i> , 2014, 2, 5936-5947.	2.9	44
54	An16-resilin: An advanced multi-stimuli-responsive resilin-mimetic protein polymer. <i>Acta Biomaterialia</i> , 2014, 10, 4768-4777.	4.1	43

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55	Novel dendritic-poly(urethane-urea) hybrid thin films from hydrogen bond rich dendrons. <i>Polymer</i> , 2014, 55, 5132-5139.	1.8	10
56	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
57	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
58	Interaction of Platelets with Poly(vinylidene fluoride-co-hexafluoropropylene) Electrospun Surfaces. <i>Biomacromolecules</i> , 2014, 15, 744-755.	2.6	17
59	Work Function Engineering of Graphene. <i>Nanomaterials</i> , 2014, 4, 267-300.	1.9	240
60	Novel nanocomposites and hybrids for high-temperature lubricating coating applications. , 2013, , 717-778.		3
61	Near Superhydrophobic Fibrous Scaffold for Endothelialization: Fabrication, Characterization and Cellular Activities. <i>Biomacromolecules</i> , 2013, 14, 3850-3860.	2.6	25
62	Anticorrosive interfacial coatings for metallic substrates. <i>Surface Innovations</i> , 2013, 1, 112-137.	1.4	8
63	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
64	Effects of neutralization on the structure and properties of an ionomer. <i>Journal of Applied Polymer Science</i> , 2012, 124, 2908-2918.	1.3	12
65	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
66	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
67	Poly[octanediol-co-(citric acid)-co-(sebacic acid)] elastomers: novel bio-elastomers for tissue engineering. <i>Polymer International</i> , 2011, 60, 333-343.	1.6	34
68	A Genetically Engineered Protein Responsive to Multiple Stimuli. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 4428-4431.	7.2	93
69	Systematic study of interfacial interactions between clays and an ionomer. <i>Journal of Applied Polymer Science</i> , 2010, 117, 3395-3405.	1.3	4
70	Electrochemical performance of sol-gel derived phospho-silicate-methacrylate hybrid coatings. <i>Journal of Electroanalytical Chemistry</i> , 2010, 641, 28-34.	1.9	28
71	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
72	A pH-responsive interface derived from resilin-mimetic protein Rec1-resilin. <i>Biomaterials</i> , 2010, 31, 4434-4446.	5.7	53

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73	X-ray photoelectron spectroscopy study of the growth kinetics of biomimetically grown hydroxyapatite thin-film coatings. <i>Applied Surface Science</i> , 2010, 256, 7178-7185.	3.1	14
74	Poly(octanediol Citrate/Sebacate Bioelastomer Films: Surface Morphology, Chemistry and Functionality. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2010, 21, 237-251.	1.9	20
75	Nanostructure Evolution in High-Temperature Perfluorosulfonic Acid Ionomer Membrane by Small-Angle X-ray Scattering. <i>Langmuir</i> , 2010, 26, 19073-19083.	1.6	15
76	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
77	Synthesis and characterization of novel citric acid-based polyester elastomers. <i>Polymer</i> , 2009, 50, 1682-1691.	1.8	116
78	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
79	Physical approaches for fabrication of organized nanostructure of resilin-mimetic elastic protein rec1-resilin. <i>Biomaterials</i> , 2009, 30, 4868-4876.	5.7	41
80	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
81	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
82	Fluoro-silsesquioxane-urethane Hybrid for Thin Film Applications. <i>ACS Applied Materials & Interfaces</i> , 2009, 1, 336-347.	4.0	50
83	Palladium-catalyzed phosphonation of SEBS block copolymer. <i>Journal of Polymer Science Part A</i> , 2008, 46, 5431-5441.	2.5	20
84	Platinum Catalyst Nanoparticles from Directed Deposition in Functional Block Copolymers. <i>Advanced Materials</i> , 2008, 20, 1819-1824.	11.1	6
85	Self-Assembly and Supramolecular Assembly in Nanophase Separated Polymers and Thin Films. <i>Nanostructure Science and Technology</i> , 2008, , 220-304.	0.1	1
86	Novel nanocomposites and hybrids for lubricating coating applications. <i>Tribology and Interface Engineering Series</i> , 2008, , 501-542.	0.0	4
87	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
88	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
89	Designing superhydrophobic surfaces using fluorosilsesquioxane-urethane hybrid and porous silicon gradients. , 2008, , .		0
90	Molecular Level Stabilization of Poly(ethylene terephthalate) with Nanostructured Open Cage Trisilanolisobutyl-POSS. <i>Macromolecules</i> , 2007, 40, 265-272.	2.2	38

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91	Synthesis and characterization of methacrylate phospho-silicate hybrid for thin film applications. <i>Polymer</i> , 2007, 48, 7078-7086.	1.8	92
92	MALDI-TOF MS and DIO-MS Investigation of the Degradation and Discoloration of Poly(ethylene Terephthalate) Overlock 10 T	2.2	28
93	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
94	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
95	Colour formation in poly(ethylene terephthalate) during melt processing. <i>Polymer Degradation and Stability</i> , 2006, 91, 875-885.	2.7	44
96	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
97	Ionomer-silica hybrids via sol-gel reaction. <i>Polymer</i> , 2005, 46, 4013-4022.	1.8	4
98	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. <i>Thin Solid Films</i> , 2005, 491, 123-132.	0.8	13
99	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
100	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
101	Perfluoro(methylcyclohexane) plasma polymer thin film: Growth, surface morphology, and properties investigated by scanning thermal microscopy. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2005, 43, 1392-1400.	2.4	13
102	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
103	Effect of composition on the solution rheology of stearyl methacrylate-co-styrene-co-vinyl pyrrolidinone in paraffinic base oil. <i>Polymer Engineering and Science</i> , 2004, 44, 736-748.	1.5	13
104	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
105	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
106	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
107	Hydrocarbon Gels: Rheological Investigation of Structure. <i>ACS Symposium Series</i> , 2002, , 190-204.	0.5	5
108	Organic-Inorganic Hybrid from Ionomer via Sol-Gel Reaction. <i>Chemistry of Materials</i> , 2001, 13, 3644-3652.	3.2	74

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109	Influence of ethyleneâ€“propylene ratio on the thermal degradation behaviour of EPDM elastomers. <i>Thermochimica Acta</i> , 2001, 367-368, 185-193.	1.2	53
110	Prediction of Viscoelastic Behaviour of Thermorheologically Complex Polymeric Materials. <i>Journal of Reinforced Plastics and Composites</i> , 2001, 20, 399-408.	1.6	3
111	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 Styreneâ€“Butadiene Rubber. <i>Rubber Chemistry and Technology</i> , 2001, 74, 260-280.	0.6	18
112	Rheological behavior of highly filled ethylene propylene diene rubber compounds. <i>Polymer Engineering and Science</i> , 2000, 40, 1065-1073.	1.5	12
113	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
114	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
115	Miscibility Studies in Blends of Bromobutyl Rubber and Natural Rubber. <i>Journal of Elastomers and Plastics</i> , 1993, 25, 158-179.	0.7	7
116	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
117	Influence of curing systems on the properties of bromobutyl rubber: Part IIIâ€“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
118	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
119	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
120	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
121	The influence of curing systems on the properties of bromobutyl rubber: Part 2â€“Effect of concentration of curing resin on the dynamic mechanical properties. <i>Polymer Degradation and Stability</i> , 1990, 30, 231-256.	2.7	8
122	Influence of large static deformations on the dynamic mechanical properties of bromobutyl rubber vulcanizates: Part I. Effect of carbon black loading. <i>Polymer Testing</i> , 1990, 9, 3-13.	2.3	14
123	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