Basudam Adhikari

List of Publications by Year
in descending order

127 papers	5,032 citations	109264 35 h-index	98753 67 g-index
129 all docs	129 docs citations	129 times ranked	6300 citing authors

#	Article	IF	Citations
1	Polymers in sensor applications. Progress in Polymer Science, 2004, 29, 699-766.	11.8	1,080
2	Enhancement of tensile strength of lignocellulosic jute fibers by alkali-steam treatment. Bioresource Technology, 2010, 101, 3182-3187.	4.8	275
3	Improvement in mechanical properties of jute fibres through mild alkali treatment as demonstrated by utilisation of the Weibull distribution model. Bioresource Technology, 2012, 107, 222-228.	4.8	204
4	Equilibrium, Kinetic, and Thermodynamic Studies of Azo Dye Adsorption from Aqueous Solution by Chemically Modified Lignocellulosic Jute Fiber. Industrial & Engineering Chemistry Research, 2013, 52, 6502-6512.	1.8	153
5	Effect of Jute as Fiber Reinforcement Controlling the Hydration Characteristics of Cement Matrix. Industrial & Engineering Chemistry Research, 2013, 52, 1252-1260.	1.8	141
6	Graphene-Silver-Induced Self-Polarized PVDF-Based Flexible Plasmonic Nanogenerator Toward the Realization for New Class of Self Powered Optical Sensor. ACS Applied Materials & Interfaces, 2016, 8, 14986-14993.	4.0	115
7	Polyaniline as a Gas-Sensor Material. Materials and Manufacturing Processes, 2006, 21, 263-270.	2.7	113
8	Collagen scaffolds derived from fresh water fish origin and their biocompatibility. Journal of Biomedical Materials Research - Part A, 2012, 100A, 1068-1079.	2.1	96
9	Improvement of the mechanical properties of jute fibre reinforced cement mortar: A statistical approach. Construction and Building Materials, 2013, 38, 776-784.	3.2	96
10	Adsorption of Anionic-Azo Dye from Aqueous Solution by Lignocellulose-Biomass Jute Fiber: Equilibrium, Kinetics, and Thermodynamics Study. Industrial & Engineering Chemistry Research, 2012, 51, 12095-12106.	1.8	94
11	Fabrication and characterizations of biodegradable jute reinforced soy based green composites. Carbohydrate Polymers, 2012, 88, 329-335.	5.1	85
12	Durability of transesterified jute geotextiles. Geotextiles and Geomembranes, 2012, 35, 69-75.	2.3	73
13	Polymer modified jute fibre as reinforcing agent controlling the physical and mechanical characteristics of cement mortar. Construction and Building Materials, 2013, 49, 214-222.	3.2	73
14	Lignin-modified phenolic resin: synthesis optimization, adhesive strength, and thermal stability. Journal of Adhesion Science and Technology, 2000, 14, 1179-1193.	1.4	72
15	Development of chitosanâ€“tripolyphosphate fibers through pH dependent ionotropic gelation. Carbohydrate Research, 2011, 346, 2582-2588.	1.1	70
16	Chemically modified jute fibre reinforced non-pressure (NP) concrete pipes with improved mechanical properties. Construction and Building Materials, 2012, 37, 841-850.	3.2	68
17	Reclaiming of rubber by a renewable resource material (RRM). III. evaluation of properties of NR reclaim. Journal of Applied Polymer Science, 2000, 75, 1493-1502.	1.3	67
18	A brief review on the chemical modifications of lignocellulosic fibers for durable engineering composites. Polymer Bulletin, 2016, 73, 587-620.	1.7	65

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19	Thermal degradation and stability of HTPB-based polyurethane and polyurethaneureas. Thermochimica Acta, 2003, 402, 169-181.	1.2	64
20	Reclaiming of rubber by a renewable resource material (RRM). II. Comparative evaluation of reclaiming process of NR vulcanizate by RRM and diallyl disulfide. Journal of Applied Polymer Science, 1999, 73, 2951-2958.	1.3	61
21	Separation of phenol from aqueous solution by pervaporation using HTPB-based polyurethaneurea membrane. Journal of Membrane Science, 2003, 217, 43-53.	4.1	59
22	Synthesis and characterization of ligninâ€“HTPB copolyurethane. European Polymer Journal, 2001, 37, 1391-1401.	2.6	57
23	Thermal stability of ligninâ€“hydroxy-terminated polybutadiene copolyurethanes. Polymer Degradation and Stability, 2001, 73, 169-175.	2.7	53
24	Porous polyurethane urea membranes for pervaporation separation of phenol and chlorophenols from water. Chemical Engineering Journal, 2008, 138, 215-223.	6.6	53
25	Influence of dopant in the synthesis, characteristics and ammonia sensing behavior of processable polyaniline. Thin Solid Films, 2009, 517, 3770-3775.	0.8	52
26	The effect of grass fiber filler on curing characteristics and mechanical properties of natural rubber. Polymers for Advanced Technologies, 2004, 15, 708-715.	1.6	51
27	Sustained release of antibiotic from polyurethane coated implant materials. Journal of Materials Science: Materials in Medicine, 2009, 20, 213-221.	1.7	46
28	Pervaporative separation of furfural from aqueous solution using modified polyurethaneurea membrane. Desalination, 2010, 252, 1-7.	4.0	46
29	Separation of furfural from aqueous solution by pervaporation using HTPB-based hydrophobic polyurethaneurea membranes. Desalination, 2007, 208, 146-158.	4.0	41
30	Application of sulfuric acid doped poly (m-aminophenol) as aliphatic alcohol vapor sensor material. Sensors and Actuators B: Chemical, 2009, 140, 525-531.	4.0	41
31	Toughening of epoxy resins by hydroxy-terminated, silicon-modified polyurethane oligomers. Journal of Applied Polymer Science, 2003, 90, 1497-1506.	1.3	40
32	Jute felt composite from lignin modified phenolic resin. Polymer Composites, 2001, 22, 518-527.	2.3	39
33	Bacterial Fucose-Rich Polysaccharide Stabilizes MAPK-Mediated Nrf2/Keap1 Signaling by Directly Scavenging Reactive Oxygen Species during Hydrogen Peroxide-Induced Apoptosis of Human Lung Fibroblast Cells. PLoS ONE, 2014, 9, e113663.	1.1	39
34	A novel route for the synthesis of processable conducting poly(m-aminophenol). Materials Chemistry and Physics, 2008, 111, 59-64.	2.0	38
35	Enhanced and Selective Photodetection Using Graphene-Stabilized Hybrid Plasmonic Silver Nanoparticles. Plasmonics, 2016, 11, 1297-1304.	1.8	38
36	Synthesis and performance of a novel polyurethaneurea as pervaporation membrane for the selective removal of phenol from industrial waste water. Bulletin of Materials Science, 2002, 25, 533-536.	0.8	37

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37	Durability of lignocellulosic fibers treated with vegetable oilâ€“phenolic resin. Carbohydrate Polymers, 2012, 87, 1628-1636.	5.1	35
38	A comprehensive study on enhanced characteristics of modified polylactic acid based versatile biopolymer. European Polymer Journal, 2014, 54, 52-61.	2.6	35
39	Recycled milk pouch and virgin low-density polyethylene/linear low-density polyethylene based coir fiber composites. Journal of Applied Polymer Science, 2007, 106, 775-785.	1.3	34
40	Lignocellulosic jute fiber as a bioadsorbent for the removal of azo dye from its aqueous solution: Batch and column studies. Journal of Applied Polymer Science, 2013, 129, 15-27.	1.3	34
41	A platform technology of recovery of lactic acid from a fermentation broth of novel substrate Zizyphus oenophlia. 3 Biotech, 2015, 5, 455-463.	1.1	33
42	Polyvinyl alcohol: A taste sensing material. Sensors and Actuators B: Chemical, 2006, 114, 747-755.	4.0	32
43	Curing characteristics and mechanical properties of alkali-treated grass-fiber-filled natural rubber composites and effects of bonding agent. Journal of Applied Polymer Science, 2006, 101, 3151-3160.	1.3	31
44	Preparation and characterization of a polyimide membrane. European Polymer Journal, 2002, 38, 1237-1243.	2.6	30
45	Pervaporation separation of DMF from water using a crosslinked polyurethane urea-PMMA IPN membrane. Desalination, 2006, 197, 106-116.	4.0	30
46	Removal of chlorinated volatile organic contaminants from water by pervaporation using a novel polyurethane ureaâ€“poly (methyl methacrylate) interpenetrating network membrane. Chemical Engineering Science, 2006, 61, 6454-6467.	1.9	30
47	Grass fiber reinforced phenol formaldehyde resin composite: preparation, characterization and evaluation of properties of composite. Polymers for Advanced Technologies, 2007, 18, 72-81.	1.6	29
48	Low fucose containing bacterial polysaccharide facilitate mitochondriaâ€dependent ROSâ€induced apoptosis of human lung epithelial carcinoma via controlled regulation of MAPKsâ€mediated Nrf2/Keap1 homeostasis signaling. Molecular Carcinogenesis, 2015, 54, 1636-1655.	1.3	25
49	Development of chitosan-tripolyphosphate non-woven fibrous scaffolds for tissue engineering application. Journal of Materials Science: Materials in Medicine, 2012, 23, 1085-1096.	1.7	24
50	Letrozole dispersed on poly (vinyl alcohol) anchored maleic anhydride grafted low density polyethylene: A controlled drug delivery system for treatment of breast cancer. Colloids and Surfaces B: Biointerfaces, 2014, 116, 169-175.	2.5	24
51	Poly (vinyl alcohol) hydrogels for pH dependent colon targeted drug delivery. Journal of Materials Science: Materials in Medicine, 2009, 20, 137-146.	1.7	23
52	Induced doping by sodium ion in poly(m-aminophenol) through the functional groups. Synthetic Metals, 2010, 160, 1524-1529.	2.1	23
53	Thermal stability and degradation of the post-use reclaim milk pouches during multiple extrusion cycles. Thermochimica Acta, 2005, 430, 87-94.	1.2	22
54	Influence of polymerization condition on the electrical conductivity and gas sensing properties of polyaniline. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 459, 278-285.	2.6	22

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55	Characterization and emulsifying property of a carbohydrate polymer produced by Bacillus pumilus UW-02 isolated from waste water irrigated agricultural soil. International Journal of Biological Macromolecules, 2011, 48, 705-712.	3.6	22
56	Biodegradation of Polyethylene Glycol-Based Polyether Urethanes. Polymer-Plastics Technology and Engineering, 2011, 50, 80-88.	1.9	21
57	Osteoblastic cellular responses on ionically crosslinked chitosanâ€tripolyphosphate fibrous 3â€D mesh scaffolds. Journal of Biomedical Materials Research - Part A, 2013, 101A, 2526-2537.	2.1	20
58	Defluoridation potential of jute fibers grafted with fatty acyl chain. Applied Surface Science, 2015, 356, 30-38.	3.1	20
59	Biomass for water defluoridation and current understanding on biosorption mechanisms: A review. Environmental Progress and Sustainable Energy, 2018, 37, 1560-1572.	1.3	20
60	Polyaniline/Silver Nanocomposite Based Acetone Vapour Sensor. Sensor Letters, 2009, 7, 592-598.	0.4	20
61	Taste sensing with polyacrylic acid grafted cellulose membrane. Talanta, 2006, 69, 131-139.	2.9	19
62	Pervaporative recovery of N-methyl-2-pyrrolidone from dilute aqueous solution by using polyurethaneurea membranes. Journal of Membrane Science, 2006, 285, 249-257.	4.1	19
63	Separation of phenol from aqueous solution by membrane pervaporation using modified polyurethaneurea membranes. Journal of Applied Polymer Science, 2006, 101, 1857-1865.	1.3	19
64	Optimization, dynamics, and enhanced production of a free radical scavenging extracellular polysaccharide (EPS) from hydrodynamic sediment attached Bacillus megaterium RB-05. Carbohydrate Polymers, 2011, 86, 1327-1335.	5.1	19
65	Effectiveness of the mild alkali and dilute polymer modification in controlling the durability of jute fibre in alkaline cement medium. Construction and Building Materials, 2018, 174, 330-342.	3.2	18
66	Separation of phenol-water mixture by membrane pervaporation using polyimide membranes. Journal of Applied Polymer Science, 2002, 83, 822-829.	1.3	17
67	Synthesis and characterization of gelatin based polyester urethane scaffold. Bulletin of Materials Science, 2006, 29, 475-484.	0.8	16
68	Synthesis and characterization of porous polyurethaneurea membranes for pervaporative separation of 4-nitrophenol from aqueous solution. Bulletin of Materials Science, 2006, 29, 225-231.	0.8	16
69	Surface Cross-Linked Poly (Vinyl Alcohol) Hydrogel for Colon Targeted Drug Release. Polymer-Plastics Technology and Engineering, 2011, 50, 1357-1361.	1.9	16
70	Copolymerization of lactic acid for cost-effective PLA synthesis and studies on its improved characteristics. Food Science and Biotechnology, 2013, 22, 73-77.	1.2	16
71	Synthesis, Characterization, and Cytotoxicity Analysis of a Biodegradable Polyurethane. Materials and Manufacturing Processes, 2006, 21, 291-296.	2.7	15
72	Ammonia sensing by hydrochloric acid doped poly(m-aminophenol)â€“silver nanocomposite. Journal of Materials Science, 2011, 46, 2905-2913.	1.7	15

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73	Effect of solvent exposure on the properties of hydroxy-terminated polybutadiene-based polyurethanes. Polymer International, 2003, 52, 938-948.	1.6	14
74	Separation of water and o-chlorophenol by pervaporation using HTPB-based polyurethaneurea membranes and application of modified Maxwellâ€“Stefan equation. Journal of Membrane Science, 2006, 272, 93-102.	4.1	14
75	Collagen Intermingled Chitosan-Tripolyphosphate Nano/Micro Fibrous Scaffolds for Tissue-Engineering Application. Journal of Biomaterials Science, Polymer Edition, 2012, 23, 1923-1938.	1.9	14
76	Polyvinyl alcohol-cellulose composite: a taste sensing material. Bulletin of Materials Science, 2005, 28, 703-712.	0.8	13
77	Development of ultrafine chitosan fibers through modified wetspinning technique. Journal of Applied Polymer Science, 2011, 121, 1550-1557.	1.3	13
78	Enhancing Degradation of Low Density Polyethylene Films by Curvularia lunata SG1 Using Particle Swarm Optimization Strategy. Indian Journal of Microbiology, 2015, 55, 258-268.	1.5	13
79	Pervaporation separation of aqueous chlorophenols by a novel polyurethane ureaâ€“poly (methyl) Tj ETQq1 1 0.784314 rgBT /Overlock	4.1	12
80	Fixed bed column study for water defluoridation using neem oil-phenolic resin treated plant bio-sorbent. Journal of Environmental Management, 2018, 212, 424-432.	3.8	12
81	Multifunctional Activities of Benzazole Derivatives in Rubber Vulcanization. Rubber Chemistry and Technology, 1993, 66, 30-37.	0.6	11
82	Fluorination of polymers by sulfur hexafluoride gas under electric discharge. Journal of Polymer Science Part A, 1994, 32, 39-45.	2.5	11
83	Chain-extended, hydroxyterminated-polybutadiene-based polyurethaneureas: Synthesis, reaction kinetics, and properties. Journal of Polymer Science Part A, 2001, 39, 2978-2992.	2.5	11
84	Taste sensing with cellophane phosphate membrane. Analytica Chimica Acta, 2005, 554, 105-112.	2.6	11
85	Dynamic vulcanization of recycled milk pouches (LDPEâ€“LLDPE) and EPDM blends using dicumyl peroxide. Polymer International, 2007, 56, 1213-1223.	1.6	11
86	Effect of LiCl as an additive in the polymerization reaction of aniline and its influence on the structural and electrical property of polyaniline. Reactive and Functional Polymers, 2008, 68, 1103-1112.	2.0	11
87	Doping of processable conducting poly(mâ€aminophenol) with silver nanoparticles. Polymers for Advanced Technologies, 2011, 22, 1060-1066.	1.6	11
88	Effect of nanoclay on physical, mechanical, and microbial degradation of jute-reinforced, soy milk-based nano-biocomposites. Polymer Engineering and Science, 2014, 54, 345-354.	1.5	11
89	Effect of the solubility of antibiotics on their release from degradable polyurethane. Materials Science and Engineering C, 2012, 32, 2316-2322.	3.8	10
90	Physical and mechanical characterization of jute reinforced soy composites. Journal of Reinforced Plastics and Composites, 2013, 32, 1380-1390.	1.6	10

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91	Influence of dielectric constant of polymerization medium on processability and ammonia gas sensing properties of polyaniline. Bulletin of Materials Science, 2011, 34, 261-270.	0.8	9
92	Development and Characterization of Nanoclay-Modified Soy Resin-Based Jute Composite as an Eco-friendly/Green Product. Polymer-Plastics Technology and Engineering, 2013, 52, 833-840.	1.9	9
93	Mechanical and biodegradation analysis of fully biodegradable ecoâ€friendly natural fiber reinforced sapling pot. Polymer Composites, 2021, 42, 2910-2919.	2.3	9
94	Grafting of vinyl acetate onto low density polyethyleneâ€"starch biodegradable films for printing and packaging applications. Polymer International, 2004, 53, 339-343.	1.6	8
95	Recycling of Polyethylene/Poly(ethylene terephthalate) Post-Consumer Oil Pouches using Compatibiliser. Polymers and Polymer Composites, 2006, 14, 635-646.	1.0	8
96	Development and characterization of plasticized starchâ€based biocomposites with soy pulp as reinforcement filler. Journal of Applied Polymer Science, 2013, 127, 4681-4687.	1.3	8
97	Zizyphus oenophlia: A potent substrate for lactic acid production. Bioresource Technology, 2013, 133, 627-629.	4.8	8
98	Vapor phase sensing response of doped polyaniline-poly (vinyl alcohol) composite membrane to different aliphatic alcohols. Synthetic Metals, 2016, 220, 410-420.	2.1	8
99	Studies on the Reaction between Thiocarbamylsulfenamides and Diebenzothiazyl Disulfide. Rubber Chemistry and Technology, 1983, 56, 327-336.	0.6	7
100	Recycled milk pouch and virgin LDPE-LLDPE-based jute fiber composites. Polymer Composites, 2007, 28, 78-88.	2.3	7
101	Effect on Structure, Processability, and Conductivity of Poly(m-aminophenol) of the Initial Acidity/Basicity of the Polymerization Medium. Journal of Macromolecular Science - Physics, 2010, 49, 669-679.	0.4	7
102	Surface grafting of Corchorus olitorius fibre: A green approach for the development of activated bioadsorbent. Carbohydrate Polymers, 2013, 92, 2118-2127.	5.1	7
103	Biodegradation of Polyester Urethane in Simulated Body Fluid. Polymer-Plastics Technology and Engineering, 2013, 52, 358-367.	1.9	7
104	Environment-friendly Fully Biodegradable Jute-Poly(vinyl Alcohol) Modified Soy Composite Development as Plastic Substitute. Journal of Natural Fibers, 2022, 19, 905-914.	1.7	7
105	Polyimide and nylon 6 blend film: Preparation, characterization and thermal behavior. Polymer Engineering and Science, 2002, 42, 336-345.	1.5	6
106	Doping of the Processable Conducting Poly(m-Aminophenol) with Inorganic Acids. Journal of Macromolecular Science - Physics, 2011, 50, 1822-1833.	0.4	6
107	Synthesis of processable conducting poly(m-aminophenol) having structure like keto derivative of polyaniline. Polymer Science - Series B, 2015, 57, 159-166.	0.3	6
108	Monitoring of drinking water quality: a preliminary approach by an electronic tongue based on functionalized polymer membrane electrodes. Analytical Methods, 2017, 9, 6019-6031.	1.3	6

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109	Effect of photodegradation of lignocellulosic fibers transesterified with vegetable oil. Fibers and Polymers, 2014, 15, 2345-2354.	1.1	5
110	Accelerated weathering analysis of jute reinforced cashewnut shell liquid modified soy based green composite. SPE Polymers, 2020, 1, 81-89.	1.4	5
111	Synthesis, Characterization, and Cytotoxicity Analysis of Polyethylene Glycol-Based Polyether Urethanes. Materials and Manufacturing Processes, 2010, 25, 1494-1504.	2.7	4
112	Discrimination of tea quality by polymer membrane electrode based potentiometric taste sensor. , 2012, , .		4
113	Modified starch-natural rubber blend, I. Cyanoethylation of xanthated starch. Angewandte Makromolekulare Chemie, 1987, 153, 113-124.	0.3	3
114	Diffusion behavior of hexane in diamine chain-extended hydroxyterminated polybutadiene based polyurethanes. Journal of Applied Polymer Science, 2002, 86, 90-97.	1.3	3
115	Mixtures of Recycled Milk Pouches with a Virgin LDPE-LLDPE Blend. Progress in Rubber, Plastics and Recycling Technology, 2005, 21, 219-230.	0.8	3
116	Halogenation of polymers by dichlorodifluoromethane. Angewandte Makromolekulare Chemie, 1991, 188, 27-40.	0.3	2
117	Recycling of Edible Oil Pouches: Composition and Thermal Stability. Progress in Rubber, Plastics and Recycling Technology, 2005, 21, 117-137.	0.8	2
118	Taste sensing with HDTC modified polyvinyl alcohol-polyacrylic acid membrane. , 2012, , .		2
119	Reclaiming of rubber by a renewable resource material (RRM). II. Comparative evaluation of reclaiming process of NR vulcanizate by RRM and diallyl disulfide. Journal of Applied Polymer Science, 1999, 73, 2951-2958.	1.3	2
120	Reclaiming of rubber by a renewable resource material (RRM). III. evaluation of properties of NR reclaim. Journal of Applied Polymer Science, 2000, 75, 1493.	1.3	2
121	On the possibility of using Ramie â€“ A natural material in cost-effective low threat body armours. Journal of Industrial Textiles, 2022, 51, 6612S-6639S.	1.1	2
122	Polymer characteristics and fracture morphology of radiation-polymerized styrene-impregnated mortar. Journal of Applied Polymer Science, 1984, 29, 2069-2082.	1.3	1
123	Title is missing!. Angewandte Makromolekulare Chemie, 1986, 143, 39-47.	0.3	1
124	Polymer modified grass fiber, part 1: Characterization of grass fiber and assessment of properties of polymer modified fiber. Journal of Applied Polymer Science, 2007, 104, 1095-1103.	1.3	1
125	<i>In Vitro</i> Release Characteristics of Hydrophobic Breast Cancer Drug Loaded Poly Lactic-co-Glycolic Acid (PLGA) Nanoparticles. Advanced Materials Research, 0, 1123, 312-315.	0.3	1
126	Poly(Nâ€[4Hâ€1,2,4â€triazolâ€4â€yl]acrylamide) with different ratio of poly(vinyl chloride) composite membrane for liquid phase sensing of alcohol. Journal of Applied Polymer Science, 2017, 134, .	1.3	1

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127	A facile route to develop hydrophilicity on the polyolefin surface for biomedical applications. Advances in Polymer Technology, 2018, 37, 1410-1419.	0.8	1