Prodyut Dhar

List of Publications by Year
in descending order

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32 papers	1,181 citations	430442 18 h-index	454577 30 g-index
33 all docs	33 docs citations	33 times ranked	1603 citing authors

#	Article	IF	Citations
1	Effect of cellulose nanocrystal polymorphs on mechanical, barrier and thermal properties of poly(lactic acid) based bionanocomposites. RSC Advances, 2015, 5, 60426-60440.	1.7	124
2	Thermally recyclable polylactic acid/cellulose nanocrystal films through reactive extrusion process. Polymer, 2016, 87, 268-282.	1.8	115
3	Poly (3-hydroxybutyrate)/cellulose nanocrystal films for food packaging applications: Barrier and migration studies. Polymer Engineering and Science, 2015, 55, 2388-2395.	1.5	99
4	Magnetic Cellulose Nanocrystal Based Anisotropic Polylactic Acid Nanocomposite Films: Influence on Electrical, Magnetic, Thermal, and Mechanical Properties. ACS Applied Materials & Interfaces, 2016, 8, 18393-18409.	4.0	93
5	Acid functionalized cellulose nanocrystals and its effect on mechanical, thermal, crystallization and surfaces properties of poly (lactic acid) bionanocomposites films: A comprehensive study. Polymer, 2016, 101, 75-92.	1.8	86
6	Reactive Extrusion of Polylactic Acid/Cellulose Nanocrystal Films for Food Packaging Applications: Influence of Filler Type on Thermomechanical, Rheological, and Barrier Properties. Industrial & Engineering Chemistry Research, 2017, 56, 4718-4735.	1.8	76
7	Biodegradable poly (lactic acid)/Cellulose nanocrystals (CNCs) composite microcellular foam: Effect of nanofillers on foam cellular morphology, thermal and wettability behavior. International Journal of Biological Macromolecules, 2018, 106, 433-446.	3.6	69
8	Polyhydroxyalkanoates (PHA)-Cellulose Based Nanobiocomposites for Food Packaging Applications. ACS Symposium Series, 2014, , 275-314.	0.5	54
9	Fabrication of cellulose nanocrystal supported stable Fe(0) nanoparticles: a sustainable catalyst for dye reduction, organic conversion and chemo-magnetic propulsion. Cellulose, 2015, 22, 3755-3771.	2.4	48
10	Thermal degradation kinetics of polylactic acid/acid fabricated cellulose nanocrystal based bionanocomposites. International Journal of Biological Macromolecules, 2017, 104, 827-836.	3.6	47
11	Nanosilk-Grafted Poly(lactic acid) Films: Influence of Cross-Linking on Rheology and Thermal Stability. ACS Omega, 2017, 2, 7071-7084.	1.6	44
12	Valorization of sugarcane straw to produce highly conductive bacterial cellulose / graphene nanocomposite films through in situ fermentation: Kinetic analysis and property evaluation. Journal of Cleaner Production, 2019, 238, 117859.	4.6	44
13	Thermo-mechanically stable sustainable polymer based solid electrolyte membranes for direct methanol fuel cell applications. Journal of Membrane Science, 2017, 526, 348-354.	4.1	32
14	Cellulose Nanocrystal Templated Graphene Nanoscrolls for High Performance Supercapacitors and Hydrogen Storage: An Experimental and Molecular Simulation Study. Scientific Reports, 2018, 8, 3886.	1.6	30
15	In Situ Bioprocessing of Bacterial Cellulose with Graphene: Percolation Network Formation, Kinetic Analysis with Physicochemical and Structural Properties Assessment. ACS Applied Bio Materials, 2019, 2, 4052-4066.	2.3	29
16	Cellulose Nanocrystals: A Potential Nanofiller for Food Packaging Applications. ACS Symposium Series, 2014, , 197-239.	0.5	27
17	Self-propelled cellulose nanocrystal based catalytic nanomotors for targeted hyperthermia and pollutant remediation applications. International Journal of Biological Macromolecules, 2020, 158, 1020-1036.	3.6	27
18	Fabrication of Cellulose Nanocrystals from Agricultural Compost. Compost Science and Utilization, 2015, 23, 104-116.	1.2	21

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19	Sustainable Approach for Mechanical Recycling of Poly(lactic acid)/Cellulose Nanocrystal Films: Investigations on Structureâ€“Property Relationship and Underlying Mechanism. Industrial & Engineering Chemistry Research, 2018, 57, 14493-14508.	1.8	18
20	Colorimetric detection of Cu(II) ion with a 1,3-bis-azachalcone derivative. Sensors and Actuators B: Chemical, 2015, 219, 308-314.	4.0	16
21	Synthesis-property-performance relationships of multifunctional bacterial cellulose composites fermented in situ alkali lignin medium. Carbohydrate Polymers, 2021, 252, 117114.	5.1	14
22	Investigations on rheological and mechanical behavior of poly(3â€Hydroxybutyrate)/cellulose nanocrystal based nanobiocomposites. Polymer Composites, 2017, 38, E392.	2.3	13
23	Biomedical engineering aspects of nanocellulose: A review. Nanotechnology, 2022, , .	1.3	13
24	Genetically engineered protein based nacre-like nanocomposites with superior mechanical and electrochemical performance. Journal of Materials Chemistry A, 2020, 8, 656-669.	5.2	10
25	Applicability of Fe-CNC/GR/PLA composite as potential sensor for biomolecules. Journal of Materials Science: Materials in Electronics, 2020, 31, 5984-5999.	1.1	7
26	Ion transfer channel network formed by flower and rod shape crystals of hair hydrolysate in poly(vinyl alcohol) matrix and its application as anion exchange membrane in fuel cells. Journal of Colloid and Interface Science, 2021, 587, 214-228.	5.0	7
27	Prospects of poly (vinyl alcohol)/Chitosan/poly (styrene sulfonic acid) and montmorillonite CloisiteÂ®30B clay composite membrane for direct methanol fuel cells. Journal of Renewable and Sustainable Energy, 2014, 6, 053135.	0.8	5
28	Cellulose nanocrystal/clay based macroion nanogel as support for stable platinum catalyst for electrochemical oxidation of methanol in alkaline medium. Applied Clay Science, 2019, 182, 105277.	2.6	4
29	Fabrication and characterization of clay nanoscrolls and stable zerovalent iron using montmorillonite. Applied Clay Science, 2020, 193, 105670.	2.6	2
30	Automation of biodiesel plant with bio-sensing technologies. , 2012, , .		1
31	Fabrication of wood-inspired high-performance composites through fermentation routes. Cellulose, 2022, 29, 2927-2947.	2.4	1
32	Development of a software tool for in silico biodiesel production from rapeseed oil. , 2011, , .		0