Pratheep Kumar Annamalai

List of Publications by Year
in descending order

71 papers	3,938 citations	172207 29 h-index	118652 62 g-index
75 all docs	75 docs citations	75 times ranked	4660 citing authors

#	Article	IF	Citations
1	High-Resolution R2R-Compatible Printing of Carbon Nanotube Conductive Patterns Enabled by Cellulose Nanocrystals. ACS Applied Nano Materials, 2022, 5, 1574-1587.	2.4	4
2	Nanocellulose: a sustainable nanomaterial for controlled drug delivery applications. , 2022, , 217-253.		0
3	Lignocellulosic plant cell wall variation influences the structure and properties of hard carbon derived from sorghum biomass. Carbon Trends, 2022, 7, 100168.	1.4	10
4	A mixed acid methodology to produce thermally stable cellulose nanocrystal at high yield using phosphoric acid. Journal of Bioresources and Bioproducts, 2022, 7, 99-108.	11.8	33
5	Rational analysis of dispersion and solubility of Kraft lignin in polyols for polyurethanes. Industrial Crops and Products, 2022, 185, 115129.	2.5	9
6	Processing and rheological properties of polyol/cellulose nanofibre dispersions for polyurethanes. Polymer, 2022, 255, 125130.	1.8	3
7	Nanocellulose-based carbon as electrode materials for sodium-ion batteries. , 2021, , 295-312.		4
8	Toughening of natural rubber nanocomposites by the incorporation of nanoscale lignin combined with an industrially relevant leaching process. Industrial Crops and Products, 2021, 159, 113063.	2.5	20
9	An Overview of Celluloseâ€Based Nanogenerators. Advanced Materials Technologies, 2021, 6, 2001164.	3.0	31
10	Molecularly Engineered Lignin-Derived Additives Enable Fire-Retardant, UV-Shielding, and Mechanically Strong Polylactide Biocomposites. Biomacromolecules, 2021, 22, 1432-1444.	2.6	94
11	Celluloseâ€Based Nanogenerators: An Overview of Celluloseâ€Based Nanogenerators (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Overlo	3.0	2
12	Review on Colloidal Quantum Dots Luminescent Solar Concentrators. ChemistrySelect, 2021, 6, 4948-4967.	0.7	21
13	Dispersion Methodology for Technical Lignin into Polyester Polyol for High-Performance Polyurethane Insulation Foam. ACS Applied Polymer Materials, 2021, 3, 3528-3537.	2.0	18
14	3D enabled facile fabrication of substrates with human tongue characteristics for analysing the tribological behaviour of food emulsions. Innovative Food Science and Emerging Technologies, 2021, 73, 102803.	2.7	2
15	Valorisation of technical lignin in rigid polyurethane foam: a critical evaluation on trends, guidelines and future perspectives. Green Chemistry, 2021, 23, 8725-8753.	4.6	36
16	Pyrolysis of brominated polyethylene as an alternative carbon fibre precursor. Polymer Degradation and Stability, 2020, 172, 109057.	2.7	11
17	Potassiumâ€Ion Storage in Celluloseâ€Derived Hard Carbon: The Role of Functional Groups. Batteries and Supercaps, 2020, 3, 953-960.	2.4	24
18	Influence of Different Nanocellulose Additives on Processing and Performance of PAN-Based Carbon Fibers. ACS Omega, 2019, 4, 9720-9730.	1.6	17

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19	Hybrid polyether-palm oil polyester polyol based rigid polyurethane foam reinforced with cellulose nanocrystal. Industrial Crops and Products, 2018, 112, 378-388.	2.5	40
20	A simple methodology for improving the performance and sustainability of rigid polyurethane foam by incorporating industrial lignin. Industrial Crops and Products, 2018, 117, 149-158.	2.5	56
21	Chitosan-based bionanocomposites for biomedical application. Bioinspired, Biomimetic and Nanobiomaterials, 2018, 7, 219-227.	0.7	17
22	Facile Tuning of the Surface Energy of Cellulose Nanofibers for Nanocomposite Reinforcement. ACS Omega, 2018, 3, 15933-15942.	1.6	23
23	Polymer Nanocomposites Characterization: Atomic Layer Deposition of Metal Oxide on Nanocellulose for Enabling Microscopic Characterization of Polymer Nanocomposites (Small 46/2018). Small, 2018, 14, 1870217.	5.2	0
24	Atomic Layer Deposition of Metal Oxide on Nanocellulose for Enabling Microscopic Characterization of Polymer Nanocomposites. Small, 2018, 14, e1803439.	5.2	9
25	Cellulose Nanofibers as Rheology Modifiers and Enhancers of Carbonization Efficiency in Polyacrylonitrile. ACS Sustainable Chemistry and Engineering, 2017, 5, 3296-3304.	3.2	32
26	Spinifex nanocellulose derived hard carbon anodes for high-performance sodium-ion batteries. Sustainable Energy and Fuels, 2017, 1, 1090-1097.	2.5	48
27	Reinforcement of natural rubber latex using lignocellulosic nanofibers isolated from spinifex grass. Nanoscale, 2017, 9, 9510-9519.	2.8	59
28	The use of cellulose nanocrystals to enhance the thermal insulation properties and sustainability of rigid polyurethane foam. Industrial Crops and Products, 2017, 107, 114-121.	2.5	130
29	Synthesis and characterization of cellulose nanocrystals as reinforcing agent in solely palm based polyurethane foam. AIP Conference Proceedings, 2017, , .	0.3	12
30	High aspect ratio nanocellulose from an extremophile spinifex grass by controlled acid hydrolysis. Cellulose, 2017, 24, 3753-3766.	2.4	37
31	Conducting polymerâ€"graphite binary and hybrid composites. , 2017, , 1-34.		7
32	Influence of moisture dependency of pressboard on transformer winding clamping pressure. IEEE Transactions on Dielectrics and Electrical Insulation, 2017, 24, 3191-3200.	1.8	16
33	Polymers from Biomass: Characterization, Modification, Degradation, and Applications. International Journal of Polymer Science, 2016, 2016, 1-2.	1.2	15
34	Dip-and-Drag Lateral Force Spectroscopy for Measuring Adhesive Forces between Nanofibers. Langmuir, 2016, 32, 13340-13348.	1.6	5
35	Scalable processing of thermoplastic polyurethane nanocomposites toughened with nanocellulose. Chemical Engineering Journal, 2016, 302, 406-416.	6.6	54
36	Fire Resistance Cellulosic Fibers for Biocomposites. , 2016, , 365-384.		2

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37	Understanding the ageing aspects of natural ester based insulation liquid in power transformer. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 246-257.	1.8	82
38	Easily deconstructed, high aspect ratio cellulose nanofibres from Triodia pungens; an abundant grass of Australia's arid zone. RSC Advances, 2015, 5, 32124-32132.	1.7	60
39	Effect of pressboard ageing on power transformer mechanical vibration characteristics. , 2015, , .		2
40	A systematic study substituting polyether polyol with palm kernel oil based polyester polyol in rigid polyurethane foam. Industrial Crops and Products, 2015, 66, 16-26.	2.5	154
41	Production of cellulose nanocrystals via a scalable mechanical method. RSC Advances, 2015, 5, 57133-57140.	1.7	72
42	Isolation of cellulose nanofibrils from Triodia pungens via different mechanical methods. Cellulose, 2015, 22, 2483-2498.	2.4	81
43	Preparation of Cellulose Nanocrystal/Polymer Nanocomposites via Sol-Gel Processes. Materials and Energy, 2014, , 23-34.	2.5	0
44	Water-Responsive Mechanically Adaptive Nanocomposites Based on Styreneâ€"Butadiene Rubber and Cellulose Nanocrystalsâ€"Processing Matters. ACS Applied Materials & Interfaces, 2014, 6, 967-976.	4.0	131
45	Stability of chitosan/montmorillonite nanohybrid towards enzymatic degradation on grafting with poly(lactic acid). Materials Science and Technology, 2014, 30, 587-592.	0.8	32
46	Can clay nanoparticles accelerate environmental biodegradation of polyolefins?. Materials Science and Technology, 2014, 30, 593-602.	0.8	16
47	Optimisation of resin extraction from an Australian arid grass â€˜Triodia pungensâ€™ and its preliminary evaluation as an anti-termite timber coating. Industrial Crops and Products, 2014, 59, 241-247.	2.5	12
48	Bioinspired Mechanically Adaptive Polymer Nanocomposites with Water-Activated Shape-Memory Effect. Macromolecules, 2011, 44, 6827-6835.	2.2	301
49	Studies on the feasibility of recycled polystyrene doped with NLO active <i>meta</i>â€Nitroaniline for optoelectronics applications. Polymers for Advanced Technologies, 2011, 22, 1865-1871.	1.6	1
50	Kinetics of mass transfer during vapour-induced phase separation (VIPS) process and its influence on poly-(vinylidene fluoride) (PVDF)membrane structure and surface morphology. Desalination and Water Treatment, 2011, 34, 204-210.	1.0	13
51	Biopolymeric Nanocomposites as Environment Benign Materials. , 2011, , 519-535.		3
52	Preparation and characterization of bioceramic nanocomposites based on hydroxyapatite (HA) and carboxymethyl cellulose (CMC). Macromolecular Research, 2010, 18, 1160-1167.	1.0	23
53	Effect of Î³-dose rate on crystallinity and morphological changes of Î³-sterilized biomedical polypropylene. Polymer Degradation and Stability, 2009, 94, 272-277.	2.7	30
54	Nanoscale particles for polymer degradation and stabilizationâ€"Trends and future perspectives. Progress in Polymer Science, 2009, 34, 479-515.	11.8	560

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55	Cell proliferation and controlled drug release studies of nanohybrids based on chitosan-g-lactic acid and montmorillonite. Acta Biomaterialia, 2009, 5, 93-100.	4.1	211
56	Single Step Synthesis and Properties of M/MFe₂O₄ and PVDF/M/MFe₂O₄ (M = Co, Ni) Magnetic Nanocomposites. Science of Advanced Materials, 2009, 1, 262-268.	0.1	7
57	Biocomposites of cellulose reinforced starch: Improvement of properties by photo-induced crosslinking. Bioresource Technology, 2008, 99, 8803-8809.	4.8	132
58	Novel hybrid of clay, cellulose, and thermoplastics. I. Preparation and characterization of composites of ethyleneâ€“propylene copolymer. Journal of Applied Polymer Science, 2007, 104, 2672-2682.	1.3	44
59	Stabilization of Î³-sterilized biomedical polyolefins by synergistic mixtures of oligomeric stabilizers. Part II. Polypropylene matrix. Polymer Degradation and Stability, 2007, 92, 299-309.	2.7	25
60	Photo-stabilization of EPDMâ€“clay nanocomposites: effect of antioxidant on the preparation and durability. Polymers for Advanced Technologies, 2007, 18, 891-900.	1.6	21
61	Biodegradation of Î³-sterilised biomedical polyolefins under composting and fungal culture environments. Polymer Degradation and Stability, 2006, 91, 1105-1116.	2.7	59
62	Stabilization of Î³-sterilized biomedical polyolefins by synergistic mixtures of oligomeric stabilizers. Polymer Degradation and Stability, 2006, 91, 2451-2464.	2.7	26
63	Photo-/Bio-degradability of Agro Waste and Ethyleneâ€“Propylene Copolymers Composites Under Abiotic and Biotic Environments. Journal of Polymers and the Environment, 2006, 14, 203-212.	2.4	14
64	Preparation and characterization of novel hybrid of chitosan-g-lactic acid and montmorillonite. Journal of Biomedical Materials Research - Part A, 2006, 78A, 372-382.	2.1	31
65	An overview on the degradability of polymer nanocomposites. Polymer Degradation and Stability, 2005, 88, 234-250.	2.7	509
66	Degradability of composites, prepared from ethyleneâ€“propylene copolymer and jute fiber under accelerated aging and biotic environments. Materials Chemistry and Physics, 2005, 92, 458-469.	2.0	72
67	Durability of Natural Fiber-reinforced Composites of Ethyleneâ€“Propylene Copolymer under Accelerated Weathering and Composting Conditions. Journal of Thermoplastic Composite Materials, 2005, 18, 489-508.	2.6	14
68	Recent Advances in Biodegradable Nanocomposites. Journal of Nanoscience and Nanotechnology, 2005, 5, 497-526.	0.9	251
69	Synthesis, characterization, and performance evaluation of novel stabilized TDI-based polyurethane coatings under accelerated weathering. Journal of Vinyl and Additive Technology, 2005, 11, 13-20.	1.8	4
70	Biodegradation of packaging materials: composting of polyolefins. Macromolecular Symposia, 2003, 197, 411-420.	0.4	12
71	A cleaner processing approach for cellulose reinforced thermoplastic polyurethane nanocomposites. Polymer Engineering and Science, 0, , .	1.5	4