Sanjay K Nayak

List of Publications by Year
in descending order

90 papers	4,998 citations	101543 36 h-index	95266 68 g-index
93 all docs	93 docs citations	93 times ranked	4746 citing authors

#	Article	IF	Citations
1	Nanosilica filled EPDM/Kevlar fiber hybrid nanocomposites: Mechanical and thermal properties. Materials Today: Proceedings, 2021, 41, 983-986.	1.8	15
2	Influence of cellulose nanocrystal/sisal fiber on the mechanical, thermal, and morphological performance of polypropylene hybrid composites. Polymer Bulletin, 2021, 78, 1609-1635.	3.3	18
3	Effect of silane treated fly ash on physicoâ€mechanical, morphological, and thermal properties of recycled poly(vinyl chloride) composites. Journal of Applied Polymer Science, 2021, 138, 50387.	2.6	14
4	Thermal insulation behaviour of Ethylene propylene diene monomer rubber/kevlar fiber based hybrid composites containing Nanosilica for solid rocket motor insulation. Journal of Applied Polymer Science, 2021, 138, 49934.	2.6	17
5	Architect of Polymer Nanocomposites for Aerospace Applications. , 2021, , 1319-1352.		1
6	Polypropylene hybrid composites: Effect of reinforcement of sisal and carbon fibre on mechanical, thermal and morphological properties. Journal of Polymer Engineering, 2021, 41, 431-441.	1.4	6
7	An effective sustainable approach towards recycling and value addition of waste poly(vinyl chloride) and acrylonitrile butadiene styrene (ABS) recovered from electronic waste (e-waste). Journal of Polymer Research, 2021, 28, 1.	2.4	4
8	Recent developments of lignocellulosic natural fiber reinforced hybrid thermosetting composites for high-end structural applications: a review. Journal of Polymer Research, 2021, 28, 1.	2.4	7
9	Progress of novel techniques for lightweight automobile applications through innovative eco-friendly composite materials: A review. Journal of Thermoplastic Composite Materials, 2020, 33, 978-1013.	4.2	97
10	Composition and Recyclability Analysis of Poly(Vinyl Chloride) Recovered from Computer Power Cables and Commercial Wires. Journal of Vinyl and Additive Technology, 2020, 26, 213-223.	3.4	9
11	Influence of surface roughness on tribological and mechanical properties of micro-milled and laser ablated poly (methyl methacrylate) PMMA organic glass. Polymer Testing, 2020, 81, 106184.	4.8	5
12	Development of recycled blends based on cables and wires with plastic cabinets: An effective solution for value addition of hazardous waste plastics. Waste Management and Research, 2020, 38, 312-321.	3.9	13
13	Effect of recycled poly(vinyl chloride) on the mechanical, thermal and rheological characteristics of recycled poly(methyl methacrylate). Journal of Material Cycles and Waste Management, 2020, 22, 698-710.	3.0	2
14	Epoxidized soybean oil toughened recycled blends: a new method for the toughening of recycled polymers employing renewable resources. Polymer Bulletin, 2020, 77, 6543-6562.	3.3	1
15	Recent Advancement in Plant Oil Derived Polyolâ€Based Polyurethane Foam for Future Perspective: A Review. European Journal of Lipid Science and Technology, 2020, 122, 1900225.	1.5	69
16	Ethylene propylene diene monomer rubberâ€based heat shielding materials for solid rocket motor: Impact of Kevlar fiber reinforcement on the thermal and mechanical properties. Polymers for Advanced Technologies, 2020, 31, 1280-1290.	3.2	13
17	Valorization of pineapple peel waste and sisal fiber: Study of cellulose nanocrystals on polypropylene nanocomposites. Journal of Applied Polymer Science, 2020, 137, 49291.	2.6	21
18	Nanocomposites of epoxidized soybean oil (ESO)-based epoxy (DGEBA) blends and clay platelets: cured with methylhexahydrophthalic anhydride crosslinker. Journal of Macromolecular Science - Pure and Applied Chemistry, 2020, 57, 654-662.	2.2	9

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19	Effect of nitrile rubber on mechanical, thermal, rheological and flammability properties of recycled blend. Chemical Engineering Research and Design, 2019, 123, 370-378.	5.6	7
20	Curing kinetics of bio-based epoxy resin-toughened DGEBA epoxy resin blend. Journal of Thermal Analysis and Calorimetry, 2019, 137, 1567-1578.	3.6	35
21	Architect of Polymer Nanocomposites for Aerospace Applications. Advances in Chemical and Materials Engineering Book Series, 2019, , 163-205.	0.3	1
22	A review on computer waste with its special insight to toxic elements, segregation and recycling techniques. Chemical Engineering Research and Design, 2018, 116, 477-493.	5.6	41
23	Synthesis and application of functionalised acrylonitrile-butadiene rubber for enhancing recyclability of poly(vinylchloride) (PVC) and poly(methylmethacrylate) (PMMA) in recycled blends. Clean Technologies and Environmental Policy, 2018, 20, 969-979.	4.1	7
24	Toughening of Petroleum Based (DGEBA) Epoxy Resins with Various Renewable Resources Based Flexible Chains for High Performance Applications: A Review. Industrial & Engineering Chemistry Research, 2018, 57, 2711-2726.	3.7	112
25	A Review on Waterborne Thermosetting Polyurethane Coatings Based on Castor Oil: Synthesis, Characterization, and Application. Polymer-Plastics Technology and Engineering, 2018, 57, 500-522.	1.9	81
26	An eco-friendly approach for toughening of polylactic acid from itaconic acid based elastomer. Journal of Polymer Research, 2018, 25, 1.	2.4	9
27	Facile synthesis of bio-sourced polyurethane- fluorosilane modified TiO2 hybrid coatings for high-performance self cleaning application. Journal of Polymer Research, 2018, 25, 1.	2.4	8
28	Mechanical, dynamic mechanical, and interfacial properties of sisal fiberâ€reinforced composite with epoxidized soybean oilâ€based epoxy matrix. Polymer Composites, 2018, 39, 2065-2072.	4.6	8
29	Recent Development of Biobased Epoxy Resins: A Review. Polymer-Plastics Technology and Engineering, 2018, 57, 133-155.	1.9	162
30	Preparation, characterization, and properties of castor oil-based flexible polyurethane/Cloisite 30B nanocomposites foam. Journal of Composite Materials, 2018, 52, 531-542.	2.4	20
31	Recent developments in elastomeric heat shielding materials for solid rocket motor casing application for future perspective. Polymers for Advanced Technologies, 2018, 29, 8-21.	3.2	62
32	Synthesis and characterization of itaconicâ€based epoxy resins. Polymers for Advanced Technologies, 2018, 29, 160-170.	3.2	28
33	Bio-based tri-functional epoxy resin (TEIA) blend cured with anhydride (MHHPA) based cross-linker: Thermal, mechanical and morphological characterization. Journal of Macromolecular Science - Pure and Applied Chemistry, 2018, 55, 496-506.	2.2	11
34	Influence of acrylonitrile butadiene rubber on recyclability of blends prepared from poly(vinyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142	3.9	7
35	Identification and thermomechanical characterization of polymers recovered from mobile phone waste. Journal of Material Cycles and Waste Management, 2017, 19, 1391-1399.	3.0	5
36	Mechanical and damage tolerance behavior of short sisal fiber reinforced recycled polypropylene biocomposites. Journal of Composite Materials, 2017, 51, 1087-1097.	2.4	11

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37	Synthesis and properties of castor oil-based waterborne polyurethane cloisite 30B nanocomposite coatings. Journal of Coatings Technology Research, 2017, 14, 377-394.	2.5	19
38	Preparation and characterization of recycled blends using poly (vinylÂchloride) and poly(methyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 7 Production, 2017, 149, 863-873.	9.3	40
39	Itaconic acid used as a versatile building block for the synthesis of renewable resourceâ€based resins and polyesters for future prospective: a review. Polymer International, 2017, 66, 1349-1363.	3.1	89
40	Study of curing kinetics of anhydride cured petroleum-based (DGEBA) epoxy resin and renewable resource based epoxidized soybean oil (ESO) systems catalyzed by 2-methylimidazole. Thermochimica Acta, 2017, 654, 112-120.	2.7	45
41	Epoxidized Soybean Oil-Based Epoxy Blend Cured with Anhydride-Based Cross-Linker: Thermal and Mechanical Characterization. Industrial & Engineering Chemistry Research, 2017, 56, 687-698.	3.7	76
42	The castor oil based water borne polyurethane dispersion; effect of -NCO/OH content: synthesis, characterization and properties. Green Processing and Synthesis, 2017, 6, 341-351.	3.4	14
43	Synthesis and Characterization of Nanoclayâ€Reinforced Trifunctional â€œBioresinâ€Modifiedâ€•Epoxy Blends Enhanced with Mechanical and Thermal Properties. ChemistrySelect, 2017, 2, 11445-11455.	1.5	5
44	Investigation into the mechanical and thermal properties of poly(methyl methacrylate) recovered from light guidance panels with a focus on future remanufacturing and sustainable waste management. Journal of Remanufacturing, 2017, 7, 217-233.	2.7	18
45	Bio-based epoxidised oil for compatibilization and value addition of poly (vinyl chloride) (PVC) and poly(methyl methacrylate) (PMMA) in recycled blend. Journal of Polymer Research, 2017, 24, 1.	2.4	19
46	Composition analysis and characterization of waste polyvinyl chloride (PVC) recovered from data cables. Waste Management, 2017, 60, 100-111.	7.4	58
47	Impact toughness, viscoelastic behavior, and morphology of polypropyleneâ€“juteâ€“viscose hybrid composites. Journal of Applied Polymer Science, 2016, 133, .	2.6	9
48	Damage tolerance behaviour of cloisite 15A incorporated recycled polypropylene nanocomposites and bionanocomposites. Journal of Experimental Nanoscience, 2016, 11, 1110-1126.	2.4	7
49	Fabrication and characterization of bionanocomposites based on poly (lactic acid), banana fiber and nanoclay. International Journal of Plastics Technology, 2016, 20, 187-201.	3.1	6
50	Influence of Different Treated Cellulose Fibers on the Mechanical and Thermal Properties of Poly(lactic acid). ACS Sustainable Chemistry and Engineering, 2016, 4, 1619-1629.	6.7	60
51	Structure property relation of hybrid biocomposites based on jute, viscose and polypropylene: The effect of the fibre content and the length on the fracture toughness and the fatigue properties. Composites Part A: Applied Science and Manufacturing, 2016, 83, 169-175.	7.6	52
52	Hyperbranched Polymers for Coating Applications: A Review. Polymer-Plastics Technology and Engineering, 2016, 55, 92-117.	1.9	55
53	Study on the effect of woven sisal fiber mat on mechanical and viscoelastic properties of petroleum based epoxy and bioresin modified toughened epoxy network. Journal of Applied Polymer Science, 2015, 132, .	2.6	11
54	Effect of lignocellulosic fibers on mechanical, thermomechanical and hydrophilic studies of epoxy modified with novel bioresin epoxy methyl ester derived from soybean oil. Polymers for Advanced Technologies, 2015, 26, 1619-1626.	3.2	9

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55	Fabrication and evaluation of acrylated epoxidized castor oilâ€toughened diglycidyl ether of bisphenol A nanocomposites. Canadian Journal of Chemical Engineering, 2015, 93, 2107-2116.	1.7	22
56	Toughened bio-based epoxy blend network modified with transesterified epoxidized soybean oil: synthesis and characterization. RSC Advances, 2015, 5, 13674-13691.	3.6	92
57	Effect of reactive organoclay on physicochemical properties of vegetable oil-based waterborne polyurethane nanocomposites. RSC Advances, 2015, 5, 11524-11533.	3.6	59
58	A review of the recent developments in biocomposites based on natural fibres and their application perspectives. Composites Part A: Applied Science and Manufacturing, 2015, 77, 1-25.	7.6	950
59	A study on effect of organo modified clay on curing behavior and thermo-physical properties of epoxy methyl ester based epoxy nanocomposite. Thermochimica Acta, 2015, 614, 163-170.	2.7	21
60	Mobile phone waste management and recycling: Views and trends. Waste Management, 2015, 46, 536-545.	7.4	121
61	Study of thermal stability and thermo-mechanical behavior of functionalized soybean oil modified toughened epoxy/organo clay nanocomposite. Progress in Organic Coatings, 2015, 88, 263-271.	3.9	35
62	Synthesis and characterization of bio-based epoxy blends from renewable resource based epoxidized soybean oil as reactive diluent. Chinese Journal of Polymer Science (English Edition), 2015, 33, 137-152.	3.8	88
63	Isocyanate terminated castor oil-based polyurethane prepolymer: Synthesis and characterization. Progress in Organic Coatings, 2015, 80, 39-48.	3.9	141
64	Regenerated cellulose fibers as impact modifier in long jute fiber reinforced polypropylene composites: Effect on mechanical properties, morphology, and fiber breakage. Journal of Applied Polymer Science, 2015, 132, .	2.6	39
65	Evaluation of flame retardancy and shear resistivity characteristics of organoclay within acrylate polymer. Journal of Thermal Analysis and Calorimetry, 2014, 118, 405-416.	3.6	3
66	Improved flame retardancy and thermal stability of polymer/clay nanocomposites, with the incorporation of multiwalled carbon nanotube as secondary filler. High Performance Polymers, 2014, 26, 826-836.	1.8	21
67	Preparation and performance evaluation of castor oil-based polyurethane prepolymer/polylactide blends. Journal of Materials Science, 2014, 49, 8016-8030.	3.7	27
68	Hybrid green nanocomposites of poly(lactic acid) reinforced with banana fibre and nanoclay. Journal of Reinforced Plastics and Composites, 2014, 33, 1717-1732.	3.1	31
69	Mechanical properties of eco-friendly recycled polymer composites: a comparative study of theoretical and experimental results. International Journal of Plastics Technology, 2013, 17, 75-93.	3.1	5
70	Banana fiber-reinforced polypropylene nanocomposites: Effect of fiber treatment on mechanical, thermal, and dynamic-mechanical properties. Journal of Thermoplastic Composite Materials, 2012, 25, 765-790.	4.2	12
71	Sisal fiber (SF) reinforced recycled polypropylene (RPP) composites. International Journal of Plastics Technology, 2012, 16, 150-165.	3.1	17
72	Thermal stability and flammability of bananaâ€fiberâ€reinforced polypropylene nanocomposites. Journal of Applied Polymer Science, 2012, 125, E432.	2.6	36

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73	Effect of surface modification of fly ash on the mechanical, thermal, electrical and morphological properties of polyetheretherketone composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 4277-4286.	5.6	50
74	Effect of surface modification of fly ash reinforced in polyetheretherketone composites. Polymer Composites, 2011, 32, 1115-1124.	4.6	15
75	Mechanical, thermal and dynamicâ€mechanical behavior of banana fiber reinforced polypropylene nanocomposites. Polymer Composites, 2011, 32, 1190-1201.	4.6	32
76	Poly(<scp>L</scp>â€lactide)/polypropylene blends: Evaluation of mechanical, thermal, and morphological characteristics. Journal of Applied Polymer Science, 2011, 121, 3223-3237.	2.6	90
77	Preparation and characterization of poly(methyl methacrylate)â€“clay nanocomposites via melt intercalation: Effect of organoclay on thermal, mechanical and flammability properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 3943-3951.	5.6	59
78	Short Bamboo Fiber-reinforced HDPE Composites: Influence of Fiber Content and Modification on Strength of the Composite. Journal of Reinforced Plastics and Composites, 2010, 29, 2199-2210.	3.1	103
79	Sisal Glass Fiber Reinforced PP Hybrid Composites: Effect of MAPP on the Dynamic Mechanical and Thermal Properties. Journal of Reinforced Plastics and Composites, 2010, 29, 1551-1568.	3.1	82
80	Influence of organically modified nanoclay on the performance of pineapple leaf fiberâ€reinforced polypropylene nanocomposites. Journal of Applied Polymer Science, 2009, 114, 4091-4103.	2.6	47
81	Influence of short bamboo/glass fiber on the thermal, dynamic mechanical and rheological properties of polypropylene hybrid composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 523, 32-38.	5.6	172
82	Polypropyleneâ€”Bamboo/Glass Fiber Hybrid Composites: Fabrication and Analysis of Mechanical, Morphological, Thermal, and Dynamic Mechanical Behavior. Journal of Reinforced Plastics and Composites, 2009, 28, 2729-2747.	3.1	147
83	Banana/Glass Fiber-Reinforced Polypropylene Hybrid Composites: Fabrication and Performance Evaluation. Polymer-Plastics Technology and Engineering, 2009, 48, 397-414.	1.9	113
84	Dynamic and steady state viscoelastic behavior and morphology of MAPP treated PP/sisal composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 443, 202-208.	5.6	26
85	Effect of clay exfoliation and organic modification on morphological, dynamic mechanical, and thermal behavior of melt-compounded polyamide-6 nanocomposites. Polymer Composites, 2007, 28, 153-162.	4.6	96
86	Rheological characterization of HDPE/sisal fiber composites. Polymer Engineering and Science, 2007, 47, 1634-1642.	3.1	28
87	Dynamic mechanical and thermal properties of MAPE treated jute/HDPE composites. Composites Science and Technology, 2006, 66, 538-547.	7.8	470
88	Interfacial, dynamic mechanical, and thermal fiber reinforced behavior of MAPE treated sisal fiber reinforced HDPE composites. Journal of Applied Polymer Science, 2006, 102, 3306-3315.	2.6	72
89	Mechanical and Rheological Characterization of Treated Jute-HDPE Composites with a Different Morphology. Journal of Reinforced Plastics and Composites, 2006, 25, 1419-1439.	3.1	38
90	Influence of fiber treatment on the performance of sisal-polypropylene composites. Journal of Applied Polymer Science, 2004, 94, 1336-1345.	2.6	107