

Kalappa Prashantha

List of Publications by Year in descending order

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83
papers

2,984
citations

186265
28
h-index

168389
53
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84
all docs

84
docs citations

84
times ranked

3456
citing authors

#	ARTICLE	IF	CITATIONS
1	Masterbatch-based multi-walled carbon nanotube filled polypropylene nanocomposites: Assessment of rheological and mechanical properties. <i>Composites Science and Technology</i> , 2009, 69, 1756-1763.	7.8	341
2	Multi-walled carbon nanotube filled polypropylene nanocomposites based on masterbatch route: Improvement of dispersion and mechanical properties through PP-g-MA addition. <i>EXPRESS Polymer Letters</i> , 2008, 2, 735-745.	2.1	185
3	Processing and characterization of halloysite nanotubes filled polypropylene nanocomposites based on a masterbatch route: effect of halloysites treatment on structural and mechanical properties. <i>EXPRESS Polymer Letters</i> , 2011, 5, 295-307.	2.1	179
4	Corrosion studies of carbon nanotubesâ€“Zn composite coating. <i>Surface and Coatings Technology</i> , 2007, 201, 5836-5842.	4.8	155
5	A review on present status and future challenges of starch based polymer films and their composites in food packaging applications. <i>Polymer Composites</i> , 2018, 39, 2499-2522.	4.6	141
6	Multifunctional properties of 3D printed poly(lactic acid)/graphene nanocomposites by fused deposition modeling. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2017, 54, 24-29.	2.2	133
7	Highly Loaded Graphiteâ€“Polylactic Acid Composite-Based Filaments for Lithium-Ion Battery Three-Dimensional Printing. <i>Chemistry of Materials</i> , 2018, 30, 7484-7493.	6.7	129
8	Mechanical behaviour and essential work of fracture of halloysite nanotubes filled polyamide 6 nanocomposites. <i>Composites Science and Technology</i> , 2011, 71, 1859-1866.	7.8	117
9	Three-Dimensional Printing of a LiFePO ₄ /Graphite Battery Cell via Fused Deposition Modeling. <i>Scientific Reports</i> , 2019, 9, 18031.	3.3	98
10	Studies on the effect of storage time and plasticizers on the structural variations in thermoplastic starch. <i>Carbohydrate Polymers</i> , 2015, 115, 364-372.	10.2	93
11	Preparation and properties of novel melt-blended halloysite nanotubes/wheat starch nanocomposites. <i>Carbohydrate Polymers</i> , 2012, 89, 920-927.	10.2	84
12	Effects of oxidative conditions on properties of multi-walled carbon nanotubes in polymer nanocomposites. <i>Composites Science and Technology</i> , 2007, 67, 1027-1034.	7.8	60
13	Proton conducting membranes based on sulfonated poly(ether ether ketone)/TiO ₂ nanocomposites for a direct methanol fuel cell. <i>Polymer International</i> , 2007, 56, 371-375.	3.1	60
14	Interpenetrating polymer networks based on polyol modified castor oil polyurethane and poly(2-hydroxyethylmethacrylate): Synthesis, chemical, mechanical and thermal properties. <i>Bulletin of Materials Science</i> , 2001, 24, 535-538.	1.7	56
15	Highly dispersed polyamideâ€“11/halloysite nanocomposites: Thermal, rheological, optical, dielectric, and mechanical properties. <i>Journal of Applied Polymer Science</i> , 2013, 130, 313-321.	2.6	54
16	Plasticized-starch/poly(ethylene oxide) blends prepared by extrusion. <i>Carbohydrate Polymers</i> , 2013, 91, 253-261.	10.2	53
17	Poly(lactic acid)/halloysite nanotubes nanocomposites: Structure, thermal, and mechanical properties as a function of halloysite treatment. <i>Journal of Applied Polymer Science</i> , 2013, 128, 1895-1903.	2.6	47
18	Development of waterâ€“blown bioâ€“based thermoplastic polyurethane foams using bioâ€“derived chain extender. <i>Journal of Applied Polymer Science</i> , 2013, 128, 292-303.	2.6	47

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19	A review on research and development of green composites from plant protein-based polymers. <i>Polymer Composites</i> , 2017, 38, 1504-1518.	4.6	47
20	Toughening of poly(lactic acid) without sacrificing stiffness and strength by melt-blending with polyamide 11 and selective localization of halloysite nanotubes. <i>EXPRESS Polymer Letters</i> , 2015, 9, 721-735.	2.1	44
21	Functionalization of halloysite nanotube with chitosan reinforced poly (vinyl alcohol) nanocomposites for potential biomedical applications. <i>International Journal of Biological Macromolecules</i> , 2020, 165, 1079-1092.	7.5	39
22	Taguchi analysis of shrinkage and warpage of injection-moulded polypropylene/multiwall carbon nanotubes nanocomposites. <i>EXPRESS Polymer Letters</i> , 2009, 3, 630-638.	2.1	36
23	Nanosized TiO ₂ -filled sulfonated polyethersulfone proton conducting membranes for direct methanol fuel cells. <i>Journal of Applied Polymer Science</i> , 2005, 98, 1875-1878.	2.6	34
24	Preparation and characterization of plasticized starch/halloysite porous nanocomposites possibly suitable for biomedical applications. <i>Journal of Applied Polymer Science</i> , 2015, 132, .	2.6	34
25	Study on the morphological and biocompatible properties of chitosan grafted silk fibre reinforced PVA films for tissue engineering applications. <i>International Journal of Biological Macromolecules</i> , 2018, 116, 45-53.	7.5	34
26	Melt-blended halloysite nanotubes/wheat starch nanocomposites as drug delivery system. <i>Polymer Engineering and Science</i> , 2015, 55, 573-580.	3.1	32
27	Modified halloysite nanotubes with Chitosan incorporated PVA/PVP bionanocomposite films: Thermal, mechanical properties and biocompatibility for tissue engineering. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 634, 127941.	4.7	32
28	Present Status and Key Challenges of Carbon Nanotubes Reinforced Polyolefins: A Review on Nanocomposites Manufacturing and Performance Issues. <i>Polymers and Polymer Composites</i> , 2009, 17, 205-245.	1.9	30
29	Corrosion Behavior of Zn-TiO ₂ Composite Coating. <i>Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry</i> , 2007, 37, 461-465.	0.6	29
30	Effect of silk fiber on the structural, thermal, and mechanical properties of PVA/PVP composite films. <i>Polymer Engineering and Science</i> , 2018, 58, 1923-1930.	3.1	29
31	Investigations on influence of nano and micron sized particles of SiC on performance properties of PEEK coatings. <i>Surface and Coatings Technology</i> , 2018, 334, 124-133.	4.8	28
32	Development of bio-based thermoplastic polyurethanes formulations using corn-derived chain extender for reactive rotational molding. <i>EXPRESS Polymer Letters</i> , 2013, 7, 852-862.	2.1	27
33	Effects of reinforcement of sodium alginate functionalized halloysite clay nanotubes on thermo-mechanical properties and biocompatibility of poly (vinyl alcohol) nanocomposites. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 118, 104441.	3.1	27
34	Effect of Polyaniline Functionalized Carbon Nanotubes Addition on the Positive Temperature Coefficient Behavior of Carbon Black/High-Density Polyethylene Nanocomposites. <i>IEEE Nanotechnology Magazine</i> , 2008, 7, 223-228.	2.0	26
35	Thermo-mechanical modeling of semi-crystalline thermoplastic shape memory polymer under large strain. <i>Smart Materials and Structures</i> , 2017, 26, 055009.	3.5	25
36	Electrical and Dielectric Properties of Multi-Walled Carbon Nanotube Filled Polypropylene Nanocomposites. <i>Polymers and Polymer Composites</i> , 2010, 18, 489-494.	1.9	21

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37	Poly (caprolactone)/sodium-alginate-functionalized halloysite clay nanotube nanocomposites: Potent biocompatible materials for wound healing applications. <i>International Journal of Pharmaceutics</i> , 2021, 607, 121048.	5.2	21
38	Overview on Lithium-Ion Battery 3D-Printing By Means of Material Extrusion. <i>ECS Transactions</i> , 2020, 98, 3-21.	0.5	21
39	Thermal degradation of epoxy resin reinforced with polypropylene fibers. <i>Journal of Applied Polymer Science</i> , 2007, 104, 500-503.	2.6	19
40	Chitosan functionalized halloysite nanotube/poly (caprolactone) nanocomposites for wound healing application. <i>Applied Surface Science Advances</i> , 2021, 6, 100158.	6.8	19
41	Processing and Characterization of Polypropylene Filled with Multiwalled Carbon Nanotube and Clay Hybrid Nanocomposites. <i>International Journal of Polymer Analysis and Characterization</i> , 2014, 19, 363-371.	1.9	18
42	Scalable Production of Multifunctional Bio-Based Polyamide 11/Graphene Nanocomposites by Melt Extrusion Processes Via Masterbatch Approach. <i>Advances in Polymer Technology</i> , 2018, 37, 1067-1075.	1.7	18
43	Thermomechanical modeling of halloysite nanotube-filled shape memory polymer nanocomposites. <i>Mechanics of Advanced Materials and Structures</i> , 2019, 26, 1209-1217.	2.6	17
44	Bio-based thermoplastic polyurethane and polyamide 11 bioalloys with excellent shape memory behavior. <i>Journal of Applied Polymer Science</i> , 2017, 134, .	2.6	16
45	Surface-treated short sisal fibers and halloysite nanotubes for synergistically enhanced performance of polypropylene hybrid composites. <i>Journal of Thermoplastic Composite Materials</i> , 2022, 35, 2089-2104.	4.2	15
46	Spectral characterization of apatite formation on poly(2-hydroxyethylmethacrylate)-TiO ₂ nanocomposite film prepared by sol-gel process. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2006, 65, 340-344.	3.9	13
47	Star-shaped sucrose-capped CaO nanoparticles from <i>Azadirachta indica</i> : A novel green synthesis. <i>Inorganic and Nano-Metal Chemistry</i> , 2017, 47, 708-712.	1.6	12
48	Preparation and characterization of carbon nanotube filled poly (2-hydroxyethylmethacrylate) nanocomposites. <i>High Performance Polymers</i> , 2013, 25, 97-103.	1.8	11
49	High temperature performance of composite adhesives based on PEEK and boron carbide particles. <i>Polymer Composites</i> , 2019, 40, 2473-2481.	4.6	10
50	Enhanced (thermo)mechanical properties in biobased poly(lactide)/poly(amide 12) blends using high shear extrusion processing without compatibilizers. <i>Polymer Engineering and Science</i> , 2020, 60, 1902-1916.	3.1	10
51	Parallel finite volume method-based fluid flow computations using OpenMP and CUDA applying different schemes. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 145, 1891-1909.	3.6	10
52	Mechanical, thermal and flame-retardant properties of epoxy-nylon fabric-clay hybrid laminates. <i>High Performance Polymers</i> , 2013, 25, 559-565.	1.8	9
53	Study of partial shape memory effect of polymers by multicycle tests. <i>Polymer Composites</i> , 2015, 36, 1145-1151.	4.6	9
54	Role of Compatibilizer in Improving the Properties of PLA/PA12 Blends. <i>Frontiers in Materials</i> , 2020, 7, .	2.4	9

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55	Thermal resistance and mechanical stability of tungsten oxide filled polymer composite radiation shields. <i>International Journal of Polymer Analysis and Characterization</i> , 2020, 25, 431-443.	1.9	9
56	Toughening of poly(lactic acid) without sacrificing stiffness and strength by melt-blending with polyamide 11 and selective localization of halloysite nanotubes. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	8
57	Recent advances in aggregation-induced emission of mechanochromic luminescent organic materials. <i>Emergent Materials</i> , 2021, 4, 673-724.	5.7	8
58	Compatibility in biobased poly(L-lactide)/polyamide binary blends: From melt-state interfacial tensions to (thermo)mechanical properties. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48440.	2.6	7
59	Electrochemical synthesis of poly[2-hydroxyethylmethacrylate] hydrogel: Kinetics and mechanism. <i>Journal of Applied Polymer Science</i> , 2002, 84, 983-992.	2.6	6
60	Studies on thermal behavior, moisture absorption, and biodegradability of ginger spent incorporated polyurethane green composites. <i>Journal of Applied Polymer Science</i> , 2015, 132, .	2.6	6
61	Synergistic effect of clay and polypropylene short fibers in epoxy based ternary composite hybrids. <i>Advances in Materials Research (South Korea)</i> , 2015, 4, 97-111.	0.6	6
62	Studies on the Miscibility of Poly(2-hydroxyethyl methacrylate) and Poly(ethylene oxide) Blends. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2008, 45, 238-241.	2.2	5
63	Vibrational energy-harvesting performance of bio-sourced flexible polyamide 11/layered silicate nanocomposite films. <i>International Journal of Polymer Analysis and Characterization</i> , 2017, 22, 72-82.	1.9	5
64	Simultaneous plasticization and blending of isolate soy protein with poly[(butylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 Td (succinyl) 46442.	2.6	5
65	Synergistic Enhancement on the Conductivity of Polyaniline via Copolymerization and Carbon Nanotubes. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2006, 43, 1477-1484.	2.2	4
66	Rheology and mechanical properties enhancement of polymerization-filled polyethylene-based composites prepared with kaolin-supported metallocene catalyst. <i>Composite Interfaces</i> , 2007, 14, 153-164.	2.3	4
67	Positive Temperature Coefficient Characteristics of Multi-walled Carbon Nanotube Filled Polyvinylidene Fluoride Nanocomposites. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2011, 48, 737-741.	2.2	4
68	Processing and Mechanical Behaviour of Halloysite Filled Starch Based Nanocomposites. <i>Advanced Materials Research</i> , 0, 584, 445-449.	0.3	4
69	Qualifying Dispersion and Distribution of Carbon Nanotubes in Polyamide Matrix during Melt-Mixing by Flow Simulation. <i>Polymers and Polymer Composites</i> , 2015, 23, 305-316.	1.9	4
70	Overview on Lithium-Ion Battery 3D-Printing By Means of Material Extrusion. <i>ECS Meeting Abstracts</i> , 2020, MA2020-02, 3690-3690.	0.0	4
71	Polyurethane and its composites derived from bio-sources: Synthesis, characterization and adsorption studies. <i>Polymers and Polymer Composites</i> , 2022, 30, 096739112211103.	1.9	4
72	STUDIES ON THE MISCIBILITY OF POLY(2-HYDROXYETHYLMETHACRYLATE) AND HYDROXY PROPYL METHYL CELLULOSE BLENDS. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2004, 53, 499-506.	3.4	3

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73	Studies on flocculation of clay suspension by polyacrylamide. E-Polymers, 2004, 4, .	3.0	2
74	Sharkskin Mechanism of LDPE and the Dispersion of Inorganic Fillers in Flow. Journal of Macromolecular Science - Physics, 2006, 45, 777-788.	1.0	2
75	Preparation and Characterization of Poly(2-Hydroxyethyl Methacrylate) and Castor Oil Based Uralkyds Interpenetrating Polymer Networks. Polymers and Polymer Composites, 2015, 23, 223-228.	1.9	2
76	Development of Water Blown Bio-Based Thermoplastic Polyurethane Foams. Advanced Materials Research, 0, 584, 361-365.	0.3	1
77	Effect of Organo Modified Clays Reinforcement on Thermal Expansion and Degradation Kinetics in Unsaturated Polyester Composites. Asian Journal of Chemistry, 2013, 25, 5431-5436.	0.3	1
78	Investigation of unsaturated polyester based polymer composite radiation shields. AIP Conference Proceedings, 2020, , .	0.4	1
79	Highly Loaded Graphite Composite PLA-Based Filaments for Lithium-Ion Battery 3D-Printing. ECS Meeting Abstracts, 2018, , .	0.0	1
80	Effect of Functionalized Copolymer on Titanium Dioxide Pigment Dispersion. Journal of Dispersion Science and Technology, 2006, 27, 511-516.	2.4	0
81	Preparation Methods and Properties of Polypropylene/Layered Silicate Nanocomposites. , 2006, , 359-418.		0
82	Rotational molding of thermoplastic polyurethane. , 2020, , .		0
83	Effect of chain extender on structural and mechanical properties of poly(butylene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 342 Td	3.3	0