Hsu-Chiang Kuan

List of Publications by Year
in descending order

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85	5,391	76196	82410
papers	citations	40	72
		h-index	g-index

86	86	86	5740
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Epoxy/graphene platelets nanocomposites with two levels of interface strength. Polymer, 2011, 52, 1603-1611.	1.8	466
2	Synthesis, thermal, mechanical and rheological properties of multiwall carbon nanotube/waterborne polyurethane nanocomposite. Composites Science and Technology, 2005, 65, 1703-1710.	3.8	373
3	A Facile Approach to Chemically Modified Graphene and its Polymer Nanocomposites. Advanced Functional Materials, 2012, 22, 2735-2743.	7.8	244
4	Effect of inorganic nanoparticles on mechanical property, fracture toughness and toughening mechanism of two epoxy systems. Polymer, 2008, 49, 3510-3523.	1.8	238
5	Preparation, morphology and properties of acid and amine modified multiwalled carbon nanotube/polyimide composite. Composites Science and Technology, 2007, 67, 2564-2573.	3.8	229
6	From carbon nanotubes and silicate layers to graphene platelets for polymer nanocomposites. Nanoscale, 2012, 4, 4578.	2.8	181
7	Covalently bonded interfaces for polymer/graphene composites. Journal of Materials Chemistry A, 2013, 1, 4255.	5.2	163
8	Development of polymer composites using modified, high-structural integrity graphene platelets. Composites Science and Technology, 2014, 91, 82-90.	3.8	136
9	Preparation, characterization, and properties of novolac-type phenolic/SiO2 hybrid organic-inorganic nanocomposite materials by sol-gel method. Journal of Polymer Science Part A, 2003, 41, 905-913.	2.5	131
10	Mechanical and electrical properties of multi-wall carbon nanotube/poly(lactic acid) composites. Journal of Physics and Chemistry of Solids, 2008, 69, 1395-1398.	1.9	126
11	A novel approach to electrically and thermally conductive elastomers using graphene. Polymer, 2013, 54, 3663-3670.	1.8	124
12	Melt compounding with graphene to develop functional, high-performance elastomers. Nanotechnology, 2013, 24, 165601.	1.3	124
13	Flame retardance and thermal stability of carbon nanotube epoxy composite prepared from solâ€“gel method. Journal of Physics and Chemistry of Solids, 2010, 71, 539-543.	1.9	120
14	Processable 3-nm thick graphene platelets of high electrical conductivity and their epoxy composites. Nanotechnology, 2014, 25, 125707.	1.3	119
15	PEDOT-based composites as electrode materials for supercapacitors. Nanotechnology, 2016, 27, 042001.	1.3	113
16	Preparation and thermal, electrical, and morphological properties of multiwalled carbon nanotubeand epoxy composites. Journal of Applied Polymer Science, 2007, 103, 1272-1278.	1.3	110
17	Structureâ€“property relations of 55nm particle-toughened epoxy. Polymer, 2010, 51, 4867-4879.	1.8	105
18	Polymer composite hydrogels containing carbon nanomaterialsâ€”Morphology and mechanical and functional performance. Progress in Polymer Science, 2018, 77, 1-18.	11.8	101

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19	Electrically conductive, mechanically robust, pH-sensitive graphene/polymer composite hydrogels. Composites Science and Technology, 2016, 127, 119-126.	3.8	99
20	Preparation and electromagnetic interference shielding characteristics of novel carbon-nanotube/siloxane/poly-(urea urethane) nanocomposites. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 345-358.	2.4	79
21	Interface-tuned epoxy/clay nanocomposites. Polymer, 2011, 52, 497-504.	1.8	76
22	Preparation and properties of novel epoxy/graphene oxide nanosheets (GON) composites functionalized with flame retardant containing phosphorus and silicon. Materials Chemistry and Physics, 2014, 146, 354-362.	2.0	72
23	Polystyrene nanocomposite materialsâ€"Preparation, mechanical, electrical and thermal properties, and morphology. Journal of Applied Polymer Science, 2006, 100, 508-515.	1.3	64
24	Preparation, thermal stability and electrical properties of PMMA/functionalized graphene oxide nanosheets composites. Materials Chemistry and Physics, 2012, 134, 677-685.	2.0	64
25	A New Strategy to Exfoliate Silicone Rubber/Clay Nanocomposites. Macromolecular Rapid Communications, 2005, 26, 830-833.	2.0	61
26	Mechanical, thermal and morphological properties of water-crosslinked wood flour reinforced linear low-density polyethylene composites. Composites Part A: Applied Science and Manufacturing, 2006, 37, 1696-1707.	3.8	59
27	Thermal and mechanical properties of silane-grafted water crosslinked polyethylene. Journal of Applied Polymer Science, 2005, 96, 2383-2391.	1.3	58
28	Development of a novel toughener for epoxy resins. Polymer International, 2009, 58, 838-845.	1.6	58
29	Effects of swelling agents on the crystallization behavior and mechanical properties of polyamide 6/clay nanocomposites. Journal of Applied Polymer Science, 2003, 88, 1686-1693.	1.3	55
30	Sulfonated poly(ether ether ketone)/poly(vinylpyrrolidone) acid-base polymer blends for direct methanol fuel cell application. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 565-572.	2.4	54
31	Fabrication, Structure and Properties of Epoxy/Metal Nanocomposites. Macromolecular Materials and Engineering, 2011, 296, 465-474.	1.7	54
32	A reactive polymer for toughening epoxy resin. Journal of Applied Polymer Science, 2010, 115, 3265-3272.	1.3	51
33	Molecular mobility of free-radical-functionalized carbon-nanotube/siloxane/poly(urea urethane) nanocomposites. Journal of Polymer Science Part A, 2005, 43, 6084-6094.	2.5	50
34	Nanosilica-toughened polymer adhesives. Materials & Design, 2014, 61, 75-86.	5.1	50
35	Thermo-oxidative degradation of novel epoxy containing silicon and phosphorous nanocomposites. European Polymer Journal, 2003, 39, 825-830.	2.6	47
36	Hydrogen bonding, mechanical properties, and surface morphology of clay/waterborne polyurethane nanocomposites. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 1-12.	2.4	47

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37	Multi-walled carbon nanotube reinforced poly (l-lactic acid) nanocomposites enhanced by water-crosslinking reaction. Journal of Physics and Chemistry of Solids, 2008, 69, 1399-1402.	1.9	47
38	Morphology, electrical resistance, electromagnetic interference shielding and mechanical properties of functionalized MWNT and poly(urea urethane) nanocomposites. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 1096-1105.	2.4	46
39	Preparation and characterization of the novel water-crosslinked cellulose reinforced poly(butylene) Tj ETQq1 1 0.784314 rgBT /Overlo	3.8	46
40	Synthesis and characterization of a clay/waterborne polyurethane nanocomposite. Journal of Materials Science, 2005, 40, 179-185.	1.7	41
41	A new method for preparation of functionalized graphene and its epoxy nanocomposites. Composites Part B: Engineering, 2020, 196, 108096.	5.9	41
42	Synthesis, characterization, flame retardance and thermal properties of halogen-free expandable graphite/PMMA composites prepared from solâ€“gel method. Polymer Degradation and Stability, 2008, 93, 1357-1363.	2.7	40
43	Facile Fabrication of Graphene Membranes with Readily Tunable Structures. ACS Applied Materials & Interfaces, 2015, 7, 13745-13757.	4.0	39
44	Preparation, characterization of microencapsulated ammonium polyphosphate and its flame retardancy in polyurethane composites. Materials Chemistry and Physics, 2016, 173, 205-212.	2.0	39
45	Preparation of expandable graphite using a hydrothermal method and flame-retardant properties of its halogen-free flame-retardant HDPE composites. Journal of Polymer Research, 2011, 18, 483-488.	1.2	35
46	A comparative study of polymer nanocomposites containing multi-walled carbon nanotubes and graphene nanoplatelets. Nano Materials Science, 2022, 4, 185-204.	3.9	35
47	Polystyrene nanocomposite materials: Preparation, morphology, and mechanical, electrical, and thermal properties. Journal of Applied Polymer Science, 2005, 98, 2266-2273.	1.3	34
48	Improving Thermal Stability of Polyurethane through the Addition of Hyperbranched Polysiloxane. Polymers, 2019, 11, 697.	2.0	32
49	Study on thermal degradation and flame retardant property of halogenâ€free polypropylene composites using XPS and cone calorimeter. Journal of Applied Polymer Science, 2013, 127, 1084-1091.	1.3	30
50	Graphene platelets versus phosphorus compounds for elastomeric composites: flame retardancy, mechanical performance and mechanisms. Nanotechnology, 2019, 30, 385703.	1.3	30
51	Effect of maleic anhydride modified MWCNTs on the morphology and dynamic mechanical properties of its PMMA composites. Materials Chemistry and Physics, 2011, 129, 1214-1220.	2.0	29
52	Toughening polymer adhesives using nanosized elastomeric particles. Journal of Materials Research, 2014, 29, 665-674.	1.2	29
53	Effect of interface modification on PMMA/graphene nanocomposites. Journal of Materials Science, 2014, 49, 5838-5849.	1.7	28
54	Processability, morphology and mechanical properties of wood flour reinforced high density polyethylene composites. Plastics, Rubber and Composites, 2003, 32, 122-126.	0.9	27

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55	The preparation of carbon nanotube/linear low density polyethylene composites by a water-crosslinking reaction. Materials Letters, 2007, 61, 2744-2748.	1.3	27
56	Synthesis, characterization, and thermal stability of PMMA/SiO₂/TiO₂ tertiary nanocomposites via nonâ€hydrolytic solâ€“gel method. Journal of Applied Polymer Science, 2009, 113, 1959-1965.	1.3	26
57	Novel polyacrylamide hydrogels by highly conductive, water-processable graphene. Composites Part A: Applied Science and Manufacturing, 2017, 93, 1-9.	3.8	26
58	Development of flame-retarding elastomeric composites with high mechanical performance. Composites Part A: Applied Science and Manufacturing, 2018, 109, 257-266.	3.8	26
59	Synthesis and characterization of polysilicic acid nanoparticles/waterborne polyurethane nanocomposite. Journal of Materials Science, 2005, 40, 6063-6070.	1.7	25
60	Flame retardancy and nondripping properties of ammonium polyphosphate/poly(butylene succinate) composites enhanced by water crosslinking. Journal of Applied Polymer Science, 2006, 102, 2935-2945.	1.3	25
61	Preparation of expandable graphite via H₂O₂â€hydrothermal process and its effect on properties of highâ€density polyethylene composites. Polymer Composites, 2012, 33, 872-880.	2.3	25
62	Filling natural microtubules with triphenyl phosphate for flame-retarding polymer composites. Composites Part A: Applied Science and Manufacturing, 2018, 115, 247-254.	3.8	25
63	Epoxy/graphene nanocomposites prepared by in-situ microwaving. Carbon, 2021, 177, 271-281.	5.4	25
64	Preparation, Characterization, Thermal, and Flame-Retardant Properties of Green Silicon-Containing Epoxy/Functionalized Graphene Nanosheets Composites. Journal of Nanomaterials, 2013, 2013, 1-10.	1.5	22
65	Preparation, thermal stability and flame-retardant properties of halogen-free polypropylene composites. High Performance Polymers, 2012, 24, 478-487.	0.8	20
66	Preparation and Flame Retardance of Polyurethane Composites Containing Microencapsulated Melamine Polyphosphate. Polymers, 2017, 9, 407.	2.0	20
67	Molecular motion, morphology, and thermal properties of multiwall carbon nanotube/polysilsesquioxane composite. Journal of Polymer Science, Part B: Polymer Physics, 2008, 46, 472-482.	2.4	16
68	Preparation, characterization, and thermal stability of novel PMMA/expandable graphite halogenâ€free flame retardant composites. Polymer Composites, 2010, 31, 18-24.	2.3	16
69	Smart thin-film piezoelectric composite sensors based on high lead zirconate titanate content. Structural Health Monitoring, 2015, 14, 214-227.	4.3	16
70	Preparation, electrical, mechanical and thermal properties of composite bipolar plate for a fuel cell. Journal of Power Sources, 2004, 134, 7-7.	4.0	15
71	Preparation and characterization of carbon nanotubes/epoxy resin nano-prepreg for nanocomposites. Journal of Physics and Chemistry of Solids, 2010, 71, 431-435.	1.9	13
72	Preparation of expandable graphite and its flame retardant properties in <scp>HDPE</scp> composites. Polymer Composites, 2017, 38, 2378-2386.	2.3	12

#	Article	IF	Citations
73	Title is missing!. Journal of Materials Science, 2003, 38, 3933-3944.	1.7	10
74	Synthesis, characterization, and properties of silane-functionalized expandable graphite composites. Journal of Composite Materials, 2012, 46, 1483-1496.	1.2	10
75	Effects of molecular weight and molecular structure of low profile additives on the properties of bulk molding compound (BMC). Polymer Engineering and Science, 2003, 43, 989-998.	1.5	9
76	Processability, Thermal, Mechanical, and Morphological Properties of Novolac Type-Epoxy Resin-Based Carbon-Carbon Composite. Journal of Composite Materials, 2004, 38, 311-320.	1.2	8
77	A facile approach to the scalable preparation of thermoplastic/carbon nanotube composites. Nanotechnology, 2020, 31, 195706.	1.3	8
78	Preparation, characterization, and flame retardance of high-density polyethylene/sulfur-free expandable graphite composites. High Performance Polymers, 2014, 26, 798-809.	0.8	5
79	Preparation of expandable graphite via ozone-hydrothermal process and flame-retardant properties of high-density polyethylene composites. High Performance Polymers, 2014, 26, 34-42.	0.8	5
80	Hydrogen-bonding, crystallinity, and morphological properties of poly(silicic acid)/waterborne polyurethane nanocomposites. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 1076-1089.	2.4	4
81	Study on the Polydimethylsiloxane Polyurethane Modified Novolac Type Epoxy Precursor for Manufacturing Carbonâ€“Carbon Composites. Journal of Composite Materials, 2006, 40, 717-731.	1.2	2
82	Preparation and Properties of Toughened Novolac Type Phenolic/SiO 2 Flame Retardant Nanocomposite. , 2004, , 742-747.		0
83	Synthesis, Thermal Properties and Flame Retardance of Novel Phenolic Resin/Silica Nanocomposites. , 2004, , 748-753.		0
84	EFFECT OF POWDER SURFACE CHARGE ON THE RHEOLOGICAL BEHAVIORS OF POWDERPOLYMER BLENDS. Journal of Polymer Engineering, 2007, 27, .	0.6	0
85	Recycled PCB flour reinforced linear low-density polyethylene composites enhanced by water cross-linking reaction. Asia-Pacific Journal of Chemical Engineering, 2009, 4, 169-177.	0.8	0