

Silane modification of carbon nanotubes and its effects carbon/CNT/epoxy three-phase composites

Composites Part A: Applied Science and Manufacturing
42, 478-483

DOI: [10.1016/j.compositesa.2011.01.004](https://doi.org/10.1016/j.compositesa.2011.01.004)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Smart Materials and Structures Based on Carbon Nanotube Composites. , 2011, , .		21
2	Gas separation performance of polyethersulfone/multi-walled carbon nanotubes mixed matrix membranes. Separation and Purification Technology, 2011, 80, 20-31.	3.9	139
3	Surface modification of carbon nanofibers by glycidoxysilane for altering the conductive and mechanical properties of epoxy composites. Composites Part A: Applied Science and Manufacturing, 2012, 43, 1357-1364.	3.8	35
4	Surface modification of carbon fiber and the mechanical properties of the silicone rubber/carbon fiber composites. Journal of Applied Polymer Science, 2012, 126, E410.	1.3	30
5	Synergistic effects of oxidized CNTs and reactive oligomer on the fracture toughness and mechanical properties of epoxy. Composites Part A: Applied Science and Manufacturing, 2013, 49, 58-67.	3.8	33
6	Structure and electric heating performance of graphene/epoxy composite films. European Polymer Journal, 2013, 49, 1322-1330.	2.6	104
7	Recent Advances in Carbon-Nanotube-Based Epoxy Composites. Carbon Letters, 2013, 14, 1-13.	3.3	51
8	Comparison on the Properties of Glass Fiber/MWCNT/Epoxy and Carbon Fiber/MWCNT/Epoxy Composites. Advanced Materials Research, 2013, 858, 32-39.	0.3	2
9	Influence of selected submicron inorganic particles on mechanical and thermo-mechanical properties of unsaturated polyester/glass composites. Journal of Reinforced Plastics and Composites, 2014, 33, 935-941.	1.6	8
10	Preparation and properties of silanized vapor-grown carbon nanofibers/epoxy shape memory nanocomposites. Polymer Composites, 2014, 35, 412-417.	2.3	20
11	Role of functionalized multiwalled carbon nanotubes on mechanical properties of epoxy-based composites at cryogenic temperature. High Performance Polymers, 2014, 26, 922-934.	0.8	14
12	Unique Li _{0.3} Ti _{0.02} Ni _{0.68} O-carbon nanotube hybrids: Synthesis and their epoxy resin composites with remarkably higher dielectric constant and lower dielectric loss. Journal of Alloys and Compounds, 2014, 602, 16-25.	2.8	17
13	Enhancement of tensile and thermal properties of epoxy nanocomposites through chemical hybridization of carbon nanotubes and alumina. Composites Part A: Applied Science and Manufacturing, 2014, 66, 109-116.	3.8	62
14	Surface functionalized carbon nanotubes and its effects on the mechanical properties of epoxy based composites at cryogenic temperature. Polymer Bulletin, 2014, 71, 2465-2485.	1.7	16
15	Noncovalently assembled nanotubular porous layers for delaying of heating surface failure. Scientific Reports, 2014, 4, 6817.	1.6	7
16	Mechanical Properties of Silane Treated Glass Nanofiber-Epoxy Resin Interphase Using Molecular Dynamics Simulation. , 2015, , .		0
17	Fabrication of Modified MMT/Glass/Vinylester Multiscale Composites and Their Mechanical Properties. Journal of Nanomaterials, 2015, 2015, 1-9.	1.5	10
18	Current-Voltage Characteristics of the Composites Based on Epoxy Resin and Carbon Nanotubes. Journal of Nanomaterials, 2015, 2015, 1-7.	1.5	7

#	ARTICLE	IF	CITATIONS
19	Surface Modification of Carbon Nanotubes for High-Performance Polymer Composites. , 2015, , 13-59.		5
20	The influence of silanisation on the mechanical and degradation behaviour of PLGA/HA composites. Materials Science and Engineering C, 2015, 48, 642-650.	3.8	20
21	Effects of oxidative functionalization and aminosilanization of carbon nanotubes on the mechanical and thermal properties of polyamide 6 nanocomposites. Journal of Thermoplastic Composite Materials, 2015, 28, 1321-1333.	2.6	5
22	Study on the phase change thermal storage performance of palmitic acid/carbon nanotubes composites. Composites Part A: Applied Science and Manufacturing, 2015, 77, 50-55.	3.8	32
23	Investigation of seawater effects on the mechanical properties of untreated and treated MMT-based glass fiber/vinylester composites. Ocean Engineering, 2015, 108, 393-401.	1.9	37
24	Enhanced mechanical properties of carbon fiber/epoxy composites by incorporating XD-grade carbon nanotube. Journal of Composite Materials, 2015, 49, 2251-2263.	1.2	31
25	Morphology and thermal properties of environmental friendly nanocomposites using biodegradable poly(amide-imide) based on N-trimellitylimido-S-valine matrix reinforced by fructose-functionalized multi-walled carbon nanotubes. Colloid and Polymer Science, 2015, 293, 545-553.	1.0	4
26	Influence of biosafe amino acid-functionalized multiwalled carbon nanotubes on the morphology and thermal properties of the poly(amide-imide) nanocomposites containing N,N'-bis-(pyromellitoyl)-bis-S-valine segments. High Performance Polymers, 2015, 27, 371-378.	0.8	2
27	Thermal and mechanical properties of epoxy composite filled with binary particle system of polygonal aluminum oxide and boron nitride platelets. Journal of Materials Science, 2016, 51, 7415-7426.	1.7	51
28	Mechanical properties of hybrid structural composites reinforced with nanosilica. Polymer Composites, 2016, 37, 1216-1222.	2.3	15
29	Effect of Silane Treated Electrospun SiO ₂ Nanofibers Interleaving on Mode I Fracture Toughness of Glass Epoxy Composites. , 2016, , .		0
30	Mechanical performance of CNT-filled glass fiber/epoxy composite in in-situ elevated temperature environments emphasizing the role of CNT content. Composites Part A: Applied Science and Manufacturing, 2016, 84, 364-376.	3.8	146
31	Interfacial and mechanical properties of epoxy composites containing carbon nanotubes grafted with alkyl chains of different length. Composites Part A: Applied Science and Manufacturing, 2016, 82, 190-197.	3.8	17
32	Size effect of graphene nanoplatelets on the morphology and mechanical behavior of glass fiber/epoxy composites. Journal of Materials Science, 2016, 51, 3337-3348.	1.7	80
33	Enhanced interfacial interaction for effective reinforcement of chitosan nanocomposites at different loading of modified multiwalled carbon nanotubes with vitamin C. Journal of Elastomers and Plastics, 2016, 48, 600-613.	0.7	7
34	Resin modification on interlaminar shear property of carbon fiber/epoxy/nano-CaCO ₃ hybrid composites. Polymer Composites, 2017, 38, 2035-2042.	2.3	20
35	Fabrication of polyimide and functionalized multi-walled carbon nanotubes mixed matrix membranes by in-situ polymerization for CO ₂ separation. Separation and Purification Technology, 2017, 177, 327-336.	3.9	80
36	Corrosion protection of AA2024-T3 by sol-gel film modified with graphene oxide. Journal of Alloys and Compounds, 2017, 725, 84-95.	2.8	49

#	ARTICLE	IF	CITATIONS
37	Surface modification of carbon nanotubes using 3-aminopropyltriethoxysilane to improve mechanical properties of nanocomposite based polymer matrix: Experimental and Density functional theory study. <i>Applied Surface Science</i> , 2017, 420, 167-179.	3.1	38
38	Improved thermal and mechanical properties of aluminium oxide filled epoxy composites by reinforcing milled carbon fiber by partial replacement method. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 13487-13495.	1.1	9
39	Tuning the interlaminar shear strength and thermo-mechanical properties of glass fiber composites by incorporation of (3-mercaptopropyl) trimethoxysilane-functionalized carbon black. <i>Iranian Polymer Journal (English Edition)</i> , 2017, 26, 913-927.	1.3	6
40	Epoxy Nanocomposites Filled with Carbon Nanoparticles. <i>Chemical Record</i> , 2018, 18, 928-939.	2.9	22
41	Interfacial properties and permeability of three patterned glass fiber/epoxy composites by VARTM. <i>Composites Part B: Engineering</i> , 2018, 148, 61-67.	5.9	19
42	Enhanced resin zirconia adhesion with carbon nanotubes-infused silanes: A pilot study. <i>Journal of Adhesion</i> , 2018, 94, 167-180.	1.8	12
43	Investigation on the flexural response of multiscale anisogrid composite panels reinforced with carbon fibers and multi-walled carbon nanotubes. <i>Journal of Composite Materials</i> , 2018, 52, 225-233.	1.2	10
44	Enhanced thermal and mechanical properties of epoxy composites filled with hybrid filler system of aluminium nitride and boron nitride. <i>Polymer Composites</i> , 2018, 39, E1372.	2.3	22
45	Role of chemical functionalization of carbon nanoparticles in epoxy matrices. <i>Journal of Composite Materials</i> , 2018, 52, 449-464.	1.2	19
46	Green Synthesis of Amino Acid Functionalized Multi-walled Carbon Nanotubes/Poly(amide-imide) Based on N-Trimellitylimido-S-valine Nanocomposites by Sonochemical Technique. <i>Journal of Polymers and the Environment</i> , 2018, 26, 1635-1641.	2.4	2
47	Detecting structural orientation in isoprene rubber/multiwall carbon nanotube nanocomposites at different scales during uniaxial deformation. <i>Polymer International</i> , 2018, 67, 258-268.	1.6	14
48	Acid Free Oxidation and Simple Dispersion Method of MWCNT for High-Performance CFRP. <i>Nanomaterials</i> , 2018, 8, 912.	1.9	29
49	A Thermoplastic Multilayered Carbon-Fabric/Polycarbonate Laminate Prepared by a Two-Step Hot-Press Technique. <i>Polymers</i> , 2018, 10, 720.	2.0	14
51	Influence of Oxyfluorination on Geometrical Pull-Out Behavior of Carbon-Fiber-Reinforced Epoxy Matrix Composites. <i>Macromolecular Research</i> , 2018, 26, 794-799.	1.0	9
52	Effect of functionalization and concentration of carbon nanotubes on mechanical, wear and fatigue behaviours of polyoxymethylene/carbon nanotube nanocomposites. <i>Bulletin of Materials Science</i> , 2019, 42, 1.	0.8	9
53	Effect of APTMS modification on multiwall carbon nanotube reinforced epoxy nanocomposites. <i>Composites Part B: Engineering</i> , 2019, 162, 425-432.	5.9	38
54	Recent advanced thermal interfacial materials: A review of conducting mechanisms and parameters of carbon materials. <i>Carbon</i> , 2019, 142, 445-460.	5.4	246
55	Submicron inorganic particles as an additional filler in hybrid epoxy matrix composites reinforced with glass fibres. <i>Polymers and Polymer Composites</i> , 2020, 28, 484-491.	1.0	7

#	ARTICLE	IF	CITATIONS
56	Hydrogen bonds leading nanodiamonds performing different thermal conductance enhancement in different MWCNTs epoxy-based nanocomposites. <i>Progress in Organic Coatings</i> , 2020, 140, 105486.	1.9	7
57	Effect of MWCNT Surface Functionalisation and Distribution on Compressive Properties of Kenaf and Hybrid Kenaf/Glass Fibres Reinforced Polymer Composites. <i>Polymers</i> , 2020, 12, 2522.	2.0	18
58	Epoxy-Based Hybrid Structural Composites with Nanofillers: A Review. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 12617-12631.	1.8	40
59	Carbon fiber epoxy matrix composites with hydrothermal carbon-coated halloysite nanotube filler exhibiting enhanced strength and thermal conductivity. <i>Polymer Composites</i> , 2020, 41, 2687-2703.	2.3	13
60	A two-step combination strategy for significantly enhancing the interfacial adhesion of CF/PPS composites: The liquid-phase oxidation followed by grafting of silane coupling agent. <i>Composites Part B: Engineering</i> , 2020, 191, 107966.	5.9	67
61	Mechanical and wear characteristics of glass fiber reinforced modified epoxy nano composites – A review. <i>Materials Today: Proceedings</i> , 2021, 37, 901-907.	0.9	4
62	The effect of 3-(triethoxy silyl) propyl amine concentration on surface modification of multiwall carbon nanotubes. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2021, 29, 74-82.	1.0	11
63	Abrasive Wear Behavior of CNT-Filled Unidirectional Kenaf-Epoxy Composites. <i>Processes</i> , 2021, 9, 128.	1.3	7
64	Comparison of Natural Fiber Types as Reinforcement Material on Composite Mechanical Properties via Carbon Nanotubes Addition. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021, 1041, 012050.	0.3	0
65	Bonding performances of epoxy coatings reinforced by carbon nanotubes (CNTs) on mild steel substrate with different surface roughness. <i>Composites Part A: Applied Science and Manufacturing</i> , 2021, 147, 106479.	3.8	21
66	Influence of Ultrasonication of Functionalized Carbon Nanotubes on the Rheology, Hydration, and Compressive Strength of Portland Cement Pastes. <i>Materials</i> , 2021, 14, 5248.	1.3	22
67	A review of carbon-based thermal interface materials: Mechanism, thermal measurements and thermal properties. <i>Materials and Design</i> , 2021, 209, 109936.	3.3	75
68	Relevance of Chemically Functionalized Nano-Fillers and Modified Nanocomposite in Energy Systems. , 2021, , 1854-1909.		0
69	Effect of ozone-treated single-walled carbon nanotubes on interfacial properties and fracture toughness of carbon fiber-reinforced epoxy composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2020, 137, 105937.	3.8	34
70	Covalent Functionalization of Multi-Walled Carbon Nanotubes for Dispersion in Cement Pastes. <i>Journal of Testing and Evaluation</i> , 2020, 48, 1850-1860.	0.4	2
71	Relevance of Chemically Functionalized Nano-Fillers and Modified Nanocomposite in Energy Systems. <i>Advances in Chemical and Materials Engineering Book Series</i> , 2019, , 10-65.	0.2	3
72	Mechanical interfacial adhesion of carbon fibers-reinforced polarized-polypropylene matrix composites: effects of silane coupling agents. <i>Carbon Letters</i> , 2016, 17, 79-84.	3.3	24
73	Characteristics and Preparation of multi-walled carbon nanotubes-polyvinyl alcohol nanocomposites via ionic mechanism. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 0, , 150527104639002.	1.0	0

#	ARTICLE	IF	CITATIONS
74	Functionalization of multi-walled carbon nanotubes with 3-aminopropyltriethoxysilane for application in cementitious matrix. <i>Construction and Building Materials</i> , 2021, 311, 125358.	3.2	16
75	A superhydrophobic TPU/CNTs@SiO ₂ coating with excellent mechanical durability and chemical stability for sustainable anti-fouling and anti-corrosion. <i>Chemical Engineering Journal</i> , 2022, 434, 134605.	6.6	66
76	Effects of steel surface treatment with silanized carbon nanotubes on the bonding properties between steel and epoxy adhesive. <i>Journal of Adhesion</i> , 2023, 99, 297-319.	1.8	5
77	Large-area flexible MWCNT/PDMS pressure sensor for ergonomic design with aid of deep learning. <i>Nanotechnology</i> , 2022, 33, 345502.	1.3	4
78	Recent advancements in interface engineering of carbon fiber reinforced polymer composites and their durability studies at different service temperatures. <i>Polymer Composites</i> , 2022, 43, 4126-4164.	2.3	20
79	Effect of silane coating surface treatment on friction and wear properties of carbon fiber/PI composites. <i>Materials Science-Poland</i> , 2022, 40, 214-222.	0.4	1
80	Recent advances in carboxylated butadiene rubber nanocomposites: effect of carbon nanotube and graphene oxide. <i>Journal of Polymer Research</i> , 2022, 29, .	1.2	2
81	Carboxylated Carbon Nanotube/Polyimide Films with Low Thermal Expansion Coefficient and Excellent Mechanical Properties. <i>Polymers</i> , 2022, 14, 4565.	2.0	3
82	Fluorine-terminated functionalized liquid metal/silicon carbide binary nanoparticles for polyvinyl alcohol composite films with high in-plane thermal conductivity and ultra-low dielectric constant. <i>Surfaces and Interfaces</i> , 2022, 35, 102408.	1.5	1
83	Tunable Hybridized Morphologies Obtained through Flash Joule Heating of Carbon Nanotubes. <i>ACS Nano</i> , 2023, 17, 2506-2516.	7.3	4
84	Surface modification of carbon nanotubes by a bifunctional amine silane; effects on physical/mechanical/thermal properties of epoxy nanocomposite. <i>Progress in Organic Coatings</i> , 2023, 179, 107521.	1.9	6
85	Investigation on silane modification and interfacial UV aging of flax fibre reinforced with polystyrene composite. <i>Materials Today: Proceedings</i> , 2023, , .	0.9	4
86	High mechanical performance of 3-aminopropyl triethoxy silane/epoxy cured in a sandwich construction of 3D carbon felts foam and woven basalt fibers. <i>Nanotechnology Reviews</i> , 2023, 12, .	2.6	5