

Roberto Guzman de Villoria

List of Publications by Year in descending order

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66
papers

3,059
citations

186209

28
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214721

47
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68
all docs

68
docs citations

68
times ranked

3768
citing authors

#	ARTICLE	IF	CITATIONS
1	Interlaminar and intralaminar reinforcement of composite laminates with aligned carbon nanotubes. <i>Composites Science and Technology</i> , 2010, 70, 20-28.	3.8	354
2	Mechanical model to evaluate the effect of the dispersion in nanocomposites. <i>Acta Materialia</i> , 2007, 55, 3025-3031.	3.8	262
3	Fabrication and Characterization of Ultrahigh-Volume-Fraction Aligned Carbon Nanotube-Polymer Composites. <i>Advanced Materials</i> , 2008, 20, 2707-2714.	11.1	245
4	Exposure to nanoscale particles and fibers during machining of hybrid advanced composites containing carbon nanotubes. <i>Journal of Nanoparticle Research</i> , 2009, 11, 231-249.	0.8	207
5	Multifunctional properties of high volume fraction aligned carbon nanotube polymer composites with controlled morphology. <i>Composites Science and Technology</i> , 2009, 69, 2649-2656.	3.8	181
6	High Electromechanical Response of Ionic Polymer Actuators with Controlled-Morphology Aligned Carbon Nanotube/Nafion Nanocomposite Electrodes. <i>Advanced Functional Materials</i> , 2010, 20, 3266-3271.	7.8	130
7	Antimicrobial metal-organic frameworks incorporated into electrospun fibers. <i>Chemical Engineering Journal</i> , 2015, 262, 189-197.	6.6	129
8	Self-powered pressure sensor based on the triboelectric effect and its analysis using dynamic mechanical analysis. <i>Nano Energy</i> , 2018, 50, 401-409.	8.2	126
9	Electrical and thermal property enhancement of fiber-reinforced polymer laminate composites through controlled implementation of multi-walled carbon nanotubes. <i>Composites Science and Technology</i> , 2012, 72, 2009-2015.	3.8	125
10	Limiting Mechanisms of Mode I Interlaminar Toughening of Composites Reinforced with Aligned Carbon Nanotubes. <i>Journal of Composite Materials</i> , 2009, 43, 825-841.	1.2	112
11	3D mesomechanical analysis of three-axial braided composite materials. <i>Composites Science and Technology</i> , 2006, 66, 2954-2964.	3.8	87
12	Mechanical properties of SWNT/epoxy composites using two different curing cycles. <i>Composites Part B: Engineering</i> , 2006, 37, 273-277.	5.9	81
13	Computational micromechanics evaluation of the effect of fibre shape on the transverse strength of unidirectional composites: An approach to virtual materials design. <i>Composites Part A: Applied Science and Manufacturing</i> , 2016, 91, 484-492.	3.8	77
14	Continuous High-Yield Production of Vertically Aligned Carbon Nanotubes on 2D and 3D Substrates. <i>ACS Nano</i> , 2011, 5, 4850-4857.	7.3	76
15	In-plane strength enhancement of laminated composites via aligned carbon nanotube interlaminar reinforcement. <i>Composites Science and Technology</i> , 2016, 133, 33-39.	3.8	68
16	Full elastic constitutive relation of non-isotropic aligned-CNT/PDMS flexible nanocomposites. <i>Nanoscale</i> , 2013, 5, 4847.	2.8	67
17	Low thermal and high electrical conductivity in hollow glass microspheres covered with carbon nanofiber-polymer composites. <i>Composites Science and Technology</i> , 2017, 151, 211-218.	3.8	51
18	Influence of the temperature on the properties of the soot formed from C ₂ H ₂ pyrolysis. <i>Chemical Engineering Journal</i> , 2007, 127, 1-9.	6.6	46

#	ARTICLE	IF	CITATIONS
19	Mechanical Characterization of Carbon Nanotube Composite Materials. <i>Mechanics of Advanced Materials and Structures</i> , 2005, 12, 13-19.	1.5	44
20	High-yield growth of vertically aligned carbon nanotubes on a continuously moving substrate. <i>Nanotechnology</i> , 2009, 20, 405611.	1.3	42
21	Multi-physics damage sensing in nano-engineered structural composites. <i>Nanotechnology</i> , 2011, 22, 185502.	1.3	42
22	Influence of Different Operation Conditions on Soot Formation from C ₂ H ₂ Pyrolysis. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 7550-7560.	1.8	40
23	Interfacial load transfer in carbon nanotube/ceramic microfiber hybrid polymer composites. <i>Composites Science and Technology</i> , 2012, 72, 1416-1422.	3.8	36
24	Simultaneous synthesis of vertically aligned carbon nanotubes and amorphous carbon thin films on stainless steel. <i>Carbon</i> , 2015, 82, 31-38.	5.4	34
25	Non-Isothermal Crystallization Behavior of PEEK/Graphene Nanoplatelets Composites from Melt and Glass States. <i>Polymers</i> , 2019, 11, 124.	2.0	33
26	Nanocomposite Flexible Pressure Sensor for Biomedical Applications. <i>Procedia Engineering</i> , 2011, 25, 140-143.	1.2	32
27	Equivalent circuit modeling of ionomer and ionic polymer conductive network composite actuators containing ionic liquids. <i>Sensors and Actuators A: Physical</i> , 2012, 181, 70-76.	2.0	31
28	Three-dimensional elastic constitutive relations of aligned carbon nanotube architectures. <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	29
29	How do graphite nanoplates affect the fracture toughness of polypropylene composites?. <i>Composites Science and Technology</i> , 2015, 111, 9-16.	3.8	27
30	Nanoindentation mapping of multiscale composites of graphene-reinforced polypropylene and carbon fibres. <i>Composites Science and Technology</i> , 2019, 169, 151-157.	3.8	22
31	Wear Behavior of Copper-Graphite Composites Processed by Field-Assisted Hot Pressing. <i>Journal of Composites Science</i> , 2019, 3, 29.	1.4	19
32	Numerical Analysis of Three-Dimensional Braided Composite by Means of Geometrical Modeling Based on Machine Emulation. <i>Mechanics of Advanced Materials and Structures</i> , 2012, 19, 207-215.	1.5	16
33	Cell survival and differentiation with nanocrystalline glass-like carbon using substantia nigra dopaminergic cells derived from transgenic mouse embryos. <i>PLoS ONE</i> , 2017, 12, e0173978.	1.1	16
34	Flexible Pressure Sensors: Modeling and Experimental Characterization. <i>Procedia Engineering</i> , 2012, 47, 1177-1180.	1.2	14
35	Graphene Oxide and Reduced Derivatives, as Powder or Film Scaffolds, Differentially Promote Dopaminergic Neuron Differentiation and Survival. <i>Frontiers in Neuroscience</i> , 2020, 14, 570409.	1.4	14
36	Triboelectric nanogenerator as self-powered impact sensor. <i>MATEC Web of Conferences</i> , 2018, 148, 14005.	0.1	12

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37	Production of graphene nanoplate/polyetheretherketone composites by semi-industrial melt-compounding. Heliyon, 2020, 6, e03740.	1.4	12
38	Controlled synthesis of nanocrystalline glass-like carbon thin films with tuneable electrical and optical properties. Chemical Engineering Journal, 2016, 299, 8-14.	6.6	11
39	Interlaminar and translaminar fracture toughness of Automated Manufactured Bio-inspired CFRP laminates. Composites Science and Technology, 2022, 219, 109236.	3.8	11
40	Microbial colonisation of transparent glass-like carbon films triggered by a reversible radiation-induced hydrophobic to hydrophilic transition. RSC Advances, 2016, 6, 50278-50287.	1.7	8
41	The effect of a semi-industrial masterbatch process on the carbon nanotube agglomerates and its influence in the properties of thermoplastic carbon nanotube composites. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 189-197.	2.4	8
42	Crust removal and effective modulus of aligned multi-walled carbon nanotube films. , 2012, , .		7
43	Enhanced Impact Energy Absorption Characteristics of Sandwich Composites through Tufting. Mechanics of Advanced Materials and Structures, 2015, 22, 1016-1023.	1.5	7
44	Tomographic Electrical Resistance-based Damage Sensing in Nano-Engineered Composite Structures. , 2010, , .		6
45	Aligned Carbon Nanotube Reinforcement of Aerospace Carbon Fiber Composites: Substructural Strength Evaluation for Aerostructure Applications. , 2012, , .		6
46	Aligned Carbon Nanotube Reinforcement of Advanced Composite Ply Interfaces. , 2008, , .		5
47	Methods for Growing Carbon Nanotubes on Carbon Fibers that Preserve Fiber Tensile Strength. , 2010, , .		5
48	Interlaminar Fracture Toughness of a Woven Advanced Composite Reinforced with Aligned Carbon Nanotubes. , 2009, , .		4
49	Thermal and Electrical Transport in Hybrid Woven Composites Reinforced with Aligned Carbon Nantubes. , 2010, , .		4
50	Nonhomogeneous morphology and the elastic modulus of aligned carbon nanotube films. Journal of Micromechanics and Microengineering, 2015, 25, 115023.	1.5	4
51	Substrate adhesion evolves non-monotonically with processing time in millimeter-scale aligned carbon nanotube arrays. Nanoscale, 2021, 13, 261-271.	2.8	4
52	Fabrication and Multifunctional Properties of High Volume Fraction Aligned Carbon Nanotube Polymeric Composites. , 2008, , .		3
53	Processing and Characterization of Infusion-Processed Hybrid Composites with In Situ Grown Aligned Carbon Nanotubes. , 2009, , .		3
54	Mechanical Properties of Infusion-Processed Fiber Reinforced Plastics with In Situ-Grown Aligned Carbon Nanotubes. , 2010, , .		3

#	ARTICLE	IF	CITATIONS
55	Flexible sensor for blood pressure measurement. , 2011, 2011, 512-5.		3
56	Effect of Manufacturing Route on Mode I Fracture Toughness of Aligned Carbon Nanotube Reinforced Composites. , 2012, , .		3
57	Elastic Properties of Aligned Carbon Nanotube Polymer Nanocomposites with Controlled Morphology. , 2012, , .		3
58	Effective Stiffness of Wavy Aligned Carbon Nanotubes for Modeling of Controlled-Morphology Polymer Nanocomposites. , 2012, , .		3
59	Three-Dimensional Constitutive Relations of Aligned Carbon Nanotube Polymer Nanocomposites. , 2013, , .		3
60	Descripci3n de paso superior vehicular de la Autov3a del Cant3brico realizado con materiales compuestos. Materiales De Construccion, 2006, 56, .	0.2	3
61	Conductive filler morphology effect on performance of ionic polymer conductive network composite actuators. Proceedings of SPIE, 2010, , .	0.8	1
62	New architecture and processes for hierarchical composites of aligned carbon nanotubes and continuous carbon fibers. , 2014, , .		1
63	Study of Early Stages in the Growth of Boron3Doped Diamond on Carbon Fibers. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2000284.	0.8	1
64	Enhanced Thermographic Damage Detection Enabled by Multifunctional Nanoengineered Composite Laminates. , 2011, , .		0
65	Ionic Electroactive Polymer Actuators with Aligned Carbon Nanotube/Nafion Nanocomposite Electrodes. Materials Research Society Symposia Proceedings, 2011, 1304, 1.	0.1	0
66	Enhanced Electromechanical Responses of IPCNC Actuators. , 2010, , .		0