

Vincenzo Tucci

List of Publications by Year in descending order

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119
papers

2,413
citations

186209

28
h-index

223716

46
g-index

120
all docs

120
docs citations

120
times ranked

2214
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of functionalization on the thermo-mechanical and electrical behavior of multi-wall carbon nanotube/epoxy composites. Carbon, 2011, 49, 1919-1930.	5.4	230
2	Piezoresistive properties of resin reinforced with carbon nanotubes for health-monitoring of aircraft primary structures. Composites Part B: Engineering, 2016, 107, 192-202.	5.9	139
3	Development of epoxy mixtures for application in aeronautics and aerospace. RSC Advances, 2014, 4, 15474-15488.	1.7	133
4	The role of carbon nanofiber defects on the electrical and mechanical properties of CNF-based resins. Nanotechnology, 2013, 24, 305704.	1.3	97
5	Experimental and theoretical study on piezoresistive properties of a structural resin reinforced with carbon nanotubes for strain sensing and damage monitoring. Composites Part B: Engineering, 2018, 145, 90-99.	5.9	79
6	Influence of carbon nanoparticles/epoxy matrix interaction on mechanical, electrical and transport properties of structural advanced materials. Nanotechnology, 2017, 28, 094001.	1.3	72
7	Simulation and experimental characterization of polymer/carbon nanotubes composites for strain sensor applications. Journal of Applied Physics, 2014, 116, .	1.1	71
8	Optimization of graphene-based materials outperforming host epoxy matrices. RSC Advances, 2015, 5, 36969-36978.	1.7	71
9	Analysis of the Voltage Distribution in a Motor Stator Winding Subjected to Steep-Fronted Surge Voltages by Means of a Multiconductor Lossy Transmission Line Model. IEEE Transactions on Energy Conversion, 2004, 19, 7-17.	3.7	66
10	Effective formulation and processing of nanofilled carbon fiber reinforced composites. RSC Advances, 2015, 5, 6033-6042.	1.7	62
11	Correlation between electrical conductivity and manufacturing processes of nanofilled carbon fiber reinforced composites. Composites Part B: Engineering, 2015, 80, 7-14.	5.9	60
12	Multiconductor transmission line analysis of steep-front surges in machine windings. IEEE Transactions on Dielectrics and Electrical Insulation, 2002, 9, 467-478.	1.8	58
13	Rheological and electrical behaviour of nanocarbon/poly(lactic) acid for 3D printing applications. Composites Part B: Engineering, 2019, 167, 467-476.	5.9	58
14	Environmental degradation of the electrical and thermal properties of organic insulating materials. Journal of Materials Science, 1988, 23, 729-735.	1.7	54
15	Fractal characteristics of electrical discharges: experiments and simulation. Journal Physics D: Applied Physics, 1993, 26, 619-627.	1.3	50
16	Cure Behavior and Physical Properties of Epoxy Resin Filled with Multiwalled Carbon Nanotubes. Journal of Nanoscience and Nanotechnology, 2010, 10, 2686-2693.	0.9	49
17	Electrical conductivity of carbon nanofiber reinforced resins: Potentiality of Tunneling Atomic Force Microscopy (TUNA) technique. Composites Part B: Engineering, 2018, 143, 148-160.	5.9	47
18	Dynamic-mechanical and dielectric characterization of PEEK crystallization. Polymer Engineering and Science, 1990, 30, 314-320.	1.5	44

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19	Numerical investigation on the influence factors of the electrical properties of carbon nanotubes-filled composites. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	44
20	Nanocarbon/Poly(Lactic) Acid for 3D Printing: Effect of Fillers Content on Electromagnetic and Thermal Properties. <i>Materials</i> , 2019, 12, 2369.	1.3	42
21	Carbon nanotube induced structural and physical property transitions of syndiotactic polypropylene. <i>Nanotechnology</i> , 2007, 18, 275703.	1.3	39
22	Comparison of the physical properties of epoxy-based composites filled with different types of carbon nanotubes for aeronautic applications. <i>Advances in Polymer Technology</i> , 2012, 31, 205-218.	0.8	39
23	Improvement of the electrical conductivity in multiphase epoxy-based MWCNT nanocomposites by means of an optimized clay content. <i>Composites Science and Technology</i> , 2013, 89, 69-76.	3.8	38
24	A Galerkin model to study the field distribution in electrical components employing nonlinear stress grading materials. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 1999, 6, 765-773.	1.8	37
25	Morphological, Rheological and Electromagnetic Properties of Nanocarbon/Poly(lactic) Acid for 3D Printing: Solution Blending vs. Melt Mixing. <i>Materials</i> , 2018, 11, 2256.	1.3	37
26	State-space models and order reduction for DC-DC switching converters in discontinuous modes. <i>IEEE Transactions on Power Electronics</i> , 1995, 10, 640-650.	5.4	33
27	Damage Monitoring of Structural Resins Loaded with Carbon Fillers: Experimental and Theoretical Study. <i>Nanomaterials</i> , 2020, 10, 434.	1.9	32
28	EM fields associated with lightning channels: on the effect of tortuosity and branching. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2000, 42, 394-404.	1.4	31
29	On the modeling of PWM converters for large signal analysis in discontinuous conduction mode. <i>IEEE Transactions on Power Electronics</i> , 1994, 9, 487-496.	5.4	29
30	Impact of the Variability of the Process Parameters on CNT-Based Nanointerconnects Performances: A Comparison Between SWCNTs Bundles and MWCNT. <i>IEEE Nanotechnology Magazine</i> , 2012, 11, 924-933.	1.1	29
31	Field distribution in cable terminations from a quasi-static approximation of the Maxwell equations. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 1996, 3, 399-409.	1.8	28
32	EM fields generated by lightning channels with arbitrary location and slope. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2000, 42, 39-53.	1.4	28
33	A morphological and structural approach to evaluate the electromagnetic performances of composites based on random networks of carbon nanotubes. <i>Journal of Applied Physics</i> , 2014, 115, .	1.1	28
34	Robust Design of High-Speed Interconnects Based on an MWCNT. <i>IEEE Nanotechnology Magazine</i> , 2012, 11, 799-807.	1.1	23
35	The effect of filler aspect ratio on the electromagnetic properties of carbon-nanofibers reinforced composites. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	23
36	Robust Design of Electromagnetic Systems Based on Interval Taylor Extension Applied to a Multiquadric Performance Function. <i>IEEE Transactions on Magnetics</i> , 2008, 44, 1134-1137.	1.2	21

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37	Flight Path 2050 and ACARE Goals for Maintaining and Extending Industrial Leadership in Aviation: A Map of the Aviation Technology Space.. Sustainability, 2019, 11, 2065.	1.6	20
38	Numerical study of electrical behaviour in carbon nanotube composites. International Journal of Applied Electromagnetics and Mechanics, 2012, 39, 21-27.	0.3	19
39	nsPEF-induced effects on cell membranes: use of electrophysical model to optimize experimental design. IEEE Transactions on Dielectrics and Electrical Insulation, 2013, 20, 1231-1238.	1.8	19
40	Electrical Current Map and Bulk Conductivity of Carbon Fiber-Reinforced Nanocomposites. Polymers, 2019, 11, 1865.	2.0	17
41	Electrical properties of different composite materials for stress relief in HV cable accessories. , 0, , .		16
42	Temperature distribution along an outdoor insulator subjected to different pollution levels. IEEE Transactions on Dielectrics and Electrical Insulation, 2000, 7, 416-423.	1.8	16
43	Equivalent Electric Circuits for the Simulation of Carbon Nanotube-Epoxy Composites. IEEE Nanotechnology Magazine, 2013, 12, 696-703.	1.1	15
44	Influence of Uncertain Electrical Properties on the Conditions for the Onset of Electroporation in an Eukaryotic Cell. IEEE Transactions on Nanobioscience, 2010, 9, 204-212.	2.2	14
45	Modeling Issues and Performance Analysis of High-Speed Interconnects Based on a Bundle of SWCNT. IEEE Transactions on Electron Devices, 2010, 57, 1978-1986.	1.6	13
46	On the effect of anisotropy in nonlinear composite materials for stress grading applications-a numerical study. IEEE Transactions on Dielectrics and Electrical Insulation, 2000, 7, 387-393.	1.8	12
47	Dependence of electrical properties of polypropylene isomers on morphology and chain conformation. Journal Physics D: Applied Physics, 2009, 42, 135405.	1.3	12
48	An accurate evaluation of electric discharge machining bearings currents in inverter-driven induction motors. , 2007, , .		11
49	SIMULATION OF THE BEARING VOLTAGE IN AN INVERTER-FED INDUCTION MOTOR BY A FULL THREE PHASE MULTI CONDUCTOR TRANSMISSION LINE MODEL. Progress in Electromagnetics Research B, 2013, 46, 233-250.	0.7	11
50	Sensitivity analysis of a Graphene Field-Effect Transistors by means of Design of Experiments. Mathematics and Computers in Simulation, 2021, 183, 187-197.	2.4	11
51	Numerical Evaluation of the Effect of Geometric Tolerances on the High-Frequency Performance of Graphene Field-Effect Transistors. Nanomaterials, 2021, 11, 3121.	1.9	10
52	Electrical properties of multi-walled carbon nanotube/tetrafunctional epoxy-amine composites. , 2012, , .		9
53	INTERVAL ANALYSIS IN POWER ELECTRONICS. Journal of Circuits, Systems and Computers, 1995, 05, 317-336.	1.0	8
54	Interval approach to robust design. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2007, 26, 280-292.	0.5	8

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55	Effect of electric field polarization and temperature on the effective permittivity and conductivity of porous anodic aluminium oxide membranes. <i>Microelectronic Engineering</i> , 2011, 88, 3338-3346.	1.1	8
56	Self-Sensing Nanocomposites for Structural Applications: Choice Criteria. <i>Nanomaterials</i> , 2021, 11, 833.	1.9	8
57	Carbon Nanotubes Bundled Interconnects: Design Hints Based on Frequency- and Time-Domain Crosstalk Analyses. <i>IEEE Transactions on Electron Devices</i> , 2011, 58, 2702-2711.	1.6	7
58	Analysis of the Effects of Hydrotalcite Inclusion on the Temperature-Sensing Properties of CNT-Epoxy Nanocomposites. <i>IEEE Sensors Journal</i> , 2016, 16, 7977-7985.	2.4	7
59	MTL model and FEM package for the evaluation of steep-front surges distribution in machine windings. , 0, , .		6
60	Electromagnetic properties of Carbon NanoTube/epoxy nanocomposites. , 2009, , .		6
61	Fabrication and Charge Transport Modeling of Thin-Film Transistor Based on Carbon Nanotubes Network. <i>IEEE Nanotechnology Magazine</i> , 2014, 13, 795-804.	1.1	6
62	The effect of the applied field on the electrical properties of metal polymer composites. <i>Polymer Composites</i> , 1988, 9, 139-143.	2.3	5
63	Electrical field dependence of charge carrier dynamics in disordered materials. , 0, , .		5
64	Electric field calculation in HV cable terminations employing heat-shrinkable composites with non linear characteristics. , 0, , .		5
65	Effect of thermal and mechanical stresses on the electrical properties of stress grading materials. , 0, , .		5
66	Range Analysis on the Wave Propagation Properties of a Single Wall Carbon Nano Tube. , 2008, , .		5
67	A robust approach to the design of an electromagnetic shield based on pyrolytic carbon. <i>AIP Advances</i> , 2016, 6, .	0.6	5
68	Tolerance analysis of a GFET transistor for aerospace and aeronautical application. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021, 1024, 012005.	0.3	5
69	Numerical evaluation of the electric field in cable terminations equipped with nonlinear grading materials. , 0, , .		4
70	Comment on "1-dimensional model for nonlinear stress control in cable terminations" [with reply]. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 1999, 6, 267-270.	1.8	4
71	Influence of circuit parameters on the electric discharge machining of the bearings of a PWM inverter driven motor. , 2008, , .		4
72	Enhanced electrical properties of carbon fiber reinforced composites obtained by an effective infusion process. , 2014, , .		4

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73	Effects of thermo-electrical aging on the properties of epoxy-based nanocomposites for motor insulation. , 2015, , .		4
74	The Performance of Graphene-Enhanced THz Grating: Impact of the Gold Layer Imperfectness. Materials, 2022, 15, 786.	1.3	4
75	Partial discharge diagnostics on a HV superconducting model cable. , 0, , .		3
76	Interpretation and classification of PD in a HV cryogenic cable termination. IEEE Transactions on Dielectrics and Electrical Insulation, 2000, 7, 71-77.	1.8	3
77	Evaluation of the electrical properties of epoxy-based nanocomposites for motor insulation. , 2011, , .		3
78	Simulation of electrical treeing in multilayer dielectrics. , 0, , .		2
79	Polarization and depolarization currents in carbon-black loaded polyolefins. , 0, , .		2
80	Profile optimisation for an HV insulator in vacuum. , 0, , .		2
81	Partial discharge testing on resin insulated voltage transformers. Electrical Engineering, 1998, 81, 89-97.	1.2	2
82	Investigation on performances of insulation materials for inverter-fed traction motors. , 0, , .		2
83	Numerical analysis of performances of stress grading cable accessories made of different anisotropic composite materials. , 0, , .		2
84	Feasible industrial fabrication of thin film transistor based on randomized network of single walled carbon nanotubes. , 2013, , .		2
85	Evaluation of the bearing voltage and the overshoot phase voltage in PWM inverter-fed by means of a multiconductor transmission line model. , 2014, , .		2
86	Electrical properties of multiphase composites based on carbon nanotubes and an optimized clay content. AIP Conference Proceedings, 2016, , .	0.3	2
87	A coarse 3D lattice network modeling electroporation phenomenon in an excitable cell. , 2017, , .		2
88	A Multi Conductor Transmission Line Model for the Evaluation of the Rotor Shaft Voltages in Adjustable Speed Drive Motors. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2006, 2, 236-240.	0.4	2
89	FEM Approach to the Robust Design of a Graphene-Based 3D Structure for THz Devices. , 2021, , .		2
90	Impulse performances of cable terminations employing stress grading accessories. , 0, , .		1

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91	Numerical characterization of electrical stresses on dielectric grease of rolling bearings in induction motors fed by PWM inverters. , 2006, , .		1
92	Performances of dielectric greases for rolling bearings employed in high power induction motors fed by PWM inverters. , 2007, , .		1
93	A modular approach for the simulation of a parameter dependent SWCNT InterConnect. , 2009, , .		1
94	Tolerance analysis of interdigitated electrode based biosensor with respect to manufacturing parameters uncertainties. , 2010, , .		1
95	Reliable bounds for the propagation delay in VLSI nano interconnects based on Multi Wall Carbon Nano Tubes. , 2010, , .		1
96	Pore dynamics induced by nsPEFs: A comparison between experimental and theoretical results. , 2012, , .		1
97	Morphological and electrical characterization of epoxy resin filled with exfoliated graphite. , 2015, , .		1
98	Equivalent Electrical Circuit Modeling of CNT-Based Transparent Electrodes. Applied Sciences (Switzerland), 2021, 11, 3408.	1.3	1
99	On the monitoring of the degradation of outdoor organic insulation. , 0, , .		0
100	Computer simulation of charge transport in disordered materials. , 0, , .		0
101	Range analysis of biological cells subjected to pulsed electric field. , 0, , .		0
102	Electrical Properties of Carbon Nanotubes - Syndiotactic Polypropylene Composites. , 2006, , .		0
103	Performances of high-voltage glass insulators subjected to fast transient overvoltages. European Transactions on Electrical Power, 1996, 6, 119-124.	1.0	0
104	Equivalent single conductor capacitance extraction for densely-packed CNT bundle interconnects via an integral formulation. , 2010, , .		0
105	Crosstalk modelling and analysis of interconnects based on carbon nanotubes bundles. , 2010, , .		0
106	Impact of the inclusion of hydrotalcite on the morphological and electrical characteristics of an epoxy-based CNT nanocomposite. , 2012, , .		0
107	Electromagnetic and Mechanical Properties of a multiphase Carbon NanoTube/Clay/Epoxy Nanocomposite. , 2012, , .		0
108	Equivalent electric circuits for the comparison of nanocarbon-based epoxy resin systems. , 2012, , .		0

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109	Measured-based equivalent RC circuits for simulating the frequency behavior of MWCNT/epoxy nanocomposites. , 2012, , .		0
110	Label-free biosensor for detection of specific protein based on carbon nanotubes network thin film transistor. , 2014, , .		0
111	Temperature effects on the electrical properties of multiphase polymer composites. , 2014, , .		0
112	Modeling and simulation of the electromagnetic properties of composites filled by carbon nanotubes. , 2014, , .		0
113	Investigation on strain sensing properties of carbon-based nanocomposites for structural aircraft applications. AIP Conference Proceedings, 2016, , .	0.3	0
114	Morphological and electrical properties of epoxy-based composites reinforced with exfoliated graphite. AIP Conference Proceedings, 2016, , .	0.3	0
115	Nanocomposites conductivity point measurement using Tunneling AFM (TUNA). MATEC Web of Conferences, 2018, 233, 00022.	0.1	0
116	Electrical characterization of aeronautical nanocomposites supported by Tunneling AFM (TUNA). MATEC Web of Conferences, 2018, 233, 00023.	0.1	0
117	A 3D printed human skin phantom made of multifunctional nanocomposites for the assessment of RF treatments effect. , 2021, , .		0
118	Compact Representation of the Inductance Coefficients in Presence of Uncertain Parameters. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2007, 3, 1180-1185.	0.4	0
119	Investigation of Electrical Properties of Graphene-Based Nanocomposites Supported by Tunnelling AFM (TUNA). Lecture Notes in Electrical Engineering, 2020, , 375-387.	0.3	0