

Thomas Andritsch

List of Publications by Year in descending order

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430442

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414034

32
g-index

134
all docs

134
docs citations

134
times ranked

1145
citing authors

#	ARTICLE	IF	CITATIONS
1	Properties of Mineral Oil based Silica Nanofluids. IEEE Transactions on Dielectrics and Electrical Insulation, 2014, 21, 1100-1108.	1.8	142
2	Anomalous behaviour of the dielectric spectroscopy response of nanocomposites. IEEE Transactions on Dielectrics and Electrical Insulation, 2012, 19, 107-117.	1.8	90
3	Characterization of epoxy microcomposite and nanocomposite materials for power engineering applications. IEEE Electrical Insulation Magazine, 2012, 28, 38-51.	1.1	86
4	Modelling of the thermal conductivity in polymer nanocomposites and the impact of the interface between filler and matrix. Journal Physics D: Applied Physics, 2011, 44, 395401.	1.3	83
5	Novel insulation materials for high voltage cable systems. IEEE Electrical Insulation Magazine, 2017, 33, 27-33.	1.1	63
6	Voltageâ€Controlled Surface Wrinkling of Elastomeric Coatings. Advanced Materials, 2013, 25, 3438-3442.	11.1	46
7	Partial discharge behavior of mineral oil based nanofluids. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 2747-2753.	1.8	42
8	Effect of resin/hardener stoichiometry on electrical behavior of epoxy networks. IEEE Transactions on Dielectrics and Electrical Insulation, 2017, 24, 3739-3749.	1.8	41
9	Proposal of the polymer chain alignment model. , 2011, , .		34
10	Understanding the cross-linking reactions in highly oxidized graphene/epoxy nanocomposite systems. Journal of Materials Science, 2019, 54, 3035-3051.	1.7	34
11	Nanodielectrics: A “universal” panacea for solving all electrical insulation problems?. , 2010, , .		33
12	Preparation of Nanoparticles. , 0, , .		33
13	Thermal conductivity of nano-filled epoxy systems. , 2009, , .		31
14	Dielectric properties and space charge behavior of MgO-epoxy nanocomposites. , 2010, , .		31
15	Short term DC breakdown strength in epoxy based BN nano- and microcomposites. , 2010, , .		31
16	Introducing particle interphase model for describing the electrical behaviour of nanodielectrics. Materials and Design, 2018, 158, 62-73.	3.3	31
17	Thermal behaviour of epoxy resin filled with high thermal conductivity nanopowders. , 2009, , .		30
18	On the Dielectric Behavior of Amine and Anhydride Cured Epoxy Resins Modified Using Multi-Terminal Epoxy Functional Network Modifier. Polymers, 2019, 11, 1271.	2.0	30

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19	The influence of graphene oxide filler on the electrical and thermal properties of unidirectional carbon fiber/epoxy laminates: Effect of out-of-plane alignment of the graphene oxide nanoparticles. <i>Polymer Composites</i> , 2020, 41, 3510-3520.	2.3	29
20	Nanodielectrics-examples of preparation and microstructure. <i>IEEE Electrical Insulation Magazine</i> , 2013, 29, 21-28.	1.1	26
21	Influence of filler/matrix interactions on resin/hardener stoichiometry, molecular dynamics, and particle dispersion of silicon nitride/epoxy nanocomposites. <i>Journal of Materials Science</i> , 2018, 53, 4144-4158.	1.7	26
22	Dielectric properties of epoxy silica and boron nitride nanocomposites and moisture/temperature influences. <i>IET Nanodielectrics</i> , 2018, 1, 48-59.	2.0	25
23	An alternative synthesis route to graphene oxide: influence of surface chemistry on charge transport in epoxy-based composites. <i>Journal of Materials Science</i> , 2019, 54, 8302-8318.	1.7	23
24	Enhanced dielectric properties of polyethylene/hexagonal boron nitride nanocomposites. <i>Journal of Materials Science</i> , 2018, 53, 3427-3442.	1.7	22
25	Space charge behavior of magnesium oxide filled epoxy nanocomposites at different temperatures and electric field strengths. , 2011, , .		20
26	On the influence of morphology and chemical defects on charge transport dynamics in polyethylene: thermal ageing and concentration gradient. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 395302.	1.3	19
27	The effect of curing conditions on the electrical properties of an epoxy resin. , 2016, , .		18
28	Synthesis and dielectric properties of epoxy based nanocomposites. , 2009, , .		17
29	The effect of surface treatment of silica nanoparticles on the breakdown strength of mineral oil. , 2014, , .		17
30	The effect of filler loading ratios and moisture on DC conductivity and space charge behaviour of SiO ₂ and hBN filled epoxy nanocomposites. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 395502.	1.3	15
31	Effect of surfactant molecular structure on the electrical and thermal performance of epoxy/functionalized-graphene nanocomposites. <i>Polymer Composites</i> , 2020, 41, 2753-2767.	2.3	15
32	Stoichiometry and molecular dynamics of anhydride-cured epoxy resin incorporating octa-glycidyl POSS Co-Monomer. <i>Polymer</i> , 2021, 213, 123312.	1.8	14
33	Effect of filler size on complex permittivity and thermal conductivity of epoxy-based composites filled with BN particles. , 2010, , .		13
34	3D-Printing of High-Thiolene Resins with Spiro-Orthoesters as Anti-Shrinkage Additive. <i>Macromolecular Materials and Engineering</i> , 2019, 304, 1900515.	1.7	13
35	Ageing behaviour of a polyethylene blend: influence of chemical defects and morphology on charge transport. <i>High Voltage</i> , 2020, 5, 270-279.	2.7	13
36	The effect of water absorption on the dielectric properties of polyethylene hexagonal boron nitride nanocomposites. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 065307.	1.3	12

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37	The role of the filler surface chemistry on the dielectric and thermal properties of polypropylene aluminium nitride nanocomposites. IEEE Transactions on Dielectrics and Electrical Insulation, 2019, 26, 1009-1017.	1.8	12
38	Thermal and electrical behaviour of epoxy-based microcomposites filled with Al ₂ O ₃ and SiO ₂ particles. , 2010, , .		10
39	The influence of the molecular architecture on the thermal and the dielectric properties of epoxy resin networks. , 2018, , .		9
40	Structural and chemical comparison between moderately oxygenated and edge oxygenated graphene: mechanical, electrical and thermal performance of the epoxy nanocomposites. SN Applied Sciences, 2019, 1, 1.	1.5	9
41	Effect of organoclay loading on the dielectric properties and charge dynamics of a PP&rubber nanocomposite. High Voltage, 2020, 5, 662-668.	2.7	9
42	A simple theoretical model for the bulk properties of nanocomposite materials. , 2014, , .		8
43	Influence of nano-SiO ₂ and BN on space charge and AC/DC performance of epoxy nanocomposites. , 2015, , .		8
44	The role of the filler surface chemistry on the dielectric and thermal properties of polypropylene aluminium nitride nanocomposites. IEEE Transactions on Dielectrics and Electrical Insulation, 2019, 26, 1009-1017.	1.8	8
45	Effect of water on the breakdown and dielectric response of polypropylene/nano-aluminium nitride composites. Journal of Materials Science, 2020, 55, 8900-8916.	1.7	8
46	AC breakdown voltage and viscosity of mineral oil based fullerene nanofluids. , 2013, , .		7
47	The effect of organoclay loading and matrix morphology on charge transport and dielectric breakdown in an ethylene-based polymer blend. Journal of Materials Science, 2019, 54, 13017-13028.	1.7	7
48	Functional design of epoxy-based networks: tailoring advanced dielectrics for next-generation energy systems. Journal Physics D: Applied Physics, 2019, 52, 205301.	1.3	7
49	Effect of Surface Functionalization on the Dielectric Properties of Polypropylene Aluminium Nitride Nanocomposites. , 2018, , .		7
50	Impact of postcuring and water absorption on the dielectric response of epoxy-based composites filled with MgO nanoparticles. , 2011, , .		6
51	Three-phase lewis-nielsen model for the thermal conductivity of polymer nanocomposites. , 2011, , .		6
52	Challenges of using electroactive polymers in large scale wave energy converters. , 2012, , .		6
53	Assessment of space charge behavior of oil-cellulose insulation systems by means of the PEA method. , 2013, , .		6
54	On the dielectric performance of modified epoxy networks. , 2016, , .		6

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55	Improved lightning protection of carbon fiber reinforced polymer wind turbine blades: Epoxy/graphene oxide nanocomposites. , 2016, , .		6
56	Space Charge Behavior of Quantum Dot-Doped Polystyrene Polymers. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 753-761.	1.8	6
57	The nature of the gamma dielectric relaxation in diglycidyl ether Bisphenol-A (DGEBA) based epoxies. Polymer, 2022, 249, 124861.	1.8	6
58	Effects of inorganic nanofillers and combinations of them on the complex permittivity of epoxy-based composites. , 2010, , .		5
59	Short term DC breakdown and complex permittivity of Al ₂ O ₃ - and MgO-epoxy nanocomposites. , 2010, , .		5
60	Modeling of the permittivity of epoxy nanocomposites. , 2013, , .		5
61	Influence of manufacturing on dielectric performance of nanocomposites. , 2013, , .		5
62	On epoxy network structure and dielectric performance. , 2015, , .		5
63	On the effect of solvent method processing on epoxy resin systems: A molecular dynamics study. , 2017, , .		5
64	Effect of Surface Functionalization on the Dielectric Properties of Polypropylene Aluminium Nitride Nanocomposites. , 2018, , .		5
65	Study on quantification method for dispersion and distribution of sphere-like particles and relationship with AC/DC breakdown strength in polymer nanocomposites. IEEE Transactions on Dielectrics and Electrical Insulation, 2020, 27, 343-351.	1.8	5
66	On the influence of chemical defects and structural factors on charge transport and failure in polyethylene. IEEE Transactions on Dielectrics and Electrical Insulation, 2020, 27, 288-295.	1.8	5
67	Investigation of the functional network modifier loading on the stoichiometric ratio of epoxy resins and their dielectric properties. Journal of Materials Science, 2021, 56, 12948-12964.	1.7	5
68	Dielectric response and thermal conductivity of epoxy resin filled with nanoalumina particles of different size in α , β ; and γ phase. , 2010, , .		4
69	DC conduction in epoxy based nano- and mesocomposites. , 2010, , .		4
70	DC breakdown investigation on polyurethane elastomeric films with and without deposited electrodes. , 2013, , .		4
71	Dielectric studies of polystyrene-based, high-permittivity composite systems. , 2014, , .		4
72	Precautionary remarks regarding synthesis of nanocomposites. , 2014, , .		4

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73	The effect of resin/hardener stoichiometry on the electrical properties of silicon nitride/epoxy nanocomposites. , 2016, , .		4
74	On water absorption and its impact on the dielectric spectra of epoxy network with different stoichiometries. , 2017, , .		4
75	Solvent Mixing and Its Effect on Epoxy Resin Filled with Graphene Oxide. , 2018, , .		4
76	Effect of core-shell particles on the dielectric properties of epoxy nanocomposites. , 2019, , .		4
77	On nanocomposite fabrication: using rheology to characterize filler/polymer interactions in epoxy-based nanocomposites. Materials Today Chemistry, 2021, 22, 100559.	1.7	4
78	Investigating the Physiochemical Effects of Aging Silicone Oil Using Sonication as a means of Mimicking Electrical Aging. , 2020, , .		4
79	Effect of Surface-Modified TiO ₂ and MgO Nanoparticles on Dielectric Permittivity and Breakdown Strength of PP Nanocomposites. , 2021, , .		4
80	Barium titanate and the dielectric response of polystyrene-based composites. , 2014, , .		3
81	Modeling the dielectric response of epoxy based nanocomposites. , 2014, , .		3
82	Influence of water absorption on dielectric properties of epoxy SiO ₂ and BN nanocomposites. , 2015, , .		3
83	The effect of material processing on the dielectric properties of polystyrene boron nitride nanocomposites. , 2015, , .		3
84	Water absorption behaviour in polyethylene boron nitride nanocomposites. , 2016, , .		3
85	Thermal stability of epoxy nanocomposites: surface treatment and morphology impact based on nano SiO ₂ and hBN fillers. Materials Research Express, 2019, 6, 105350.	0.8	3
86	Effect of Stoichiometry on AC and DC Breakdown of Silicon Nitride/Epoxy Nanocomposites. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 1231-1237.	1.8	3
87	Enhanced Boron Nitride/Polyolefin Blends for High Voltage Applications. IEEE Nanotechnology Magazine, 2021, 20, 794-802.	1.1	3
88	Effect of Nanoparticle Volume and Surface Characteristics on the Bulk Properties of Epoxy Nanocomposite. , 2020, , .		3
89	Dielectric frequency response of epoxy-based composites with various silica filler sizes. , 2010, , .		2
90	The effect of exfoliation on the breakdown strength of polystyrene boron nitride composites. , 2014, , .		2

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91	An investigation into the dynamics of partial discharge propagation in mineral oil based nanofluids. , 2014, , .		2
92	Effect of the processing method on the electrical behavior of silicon nitride / epoxy nanocomposites. , 2015, , .		2
93	On the effects of molecular composition, morphology and ageing on the electrical properties of polyethylene. , 2016, , .		2
94	Change in the electrical properties due to modification of the epoxy network structure using reactive diluents. , 2016, , .		2
95	Investigation of the molecular dynamics in epoxy resin systems using the effect of different functional groups on the dynamics of micromolecular networks. , 2017, , .		2
96	On The Design of The Structure of Epoxy Resin Networks. , 2018, , .		2
97	The dielectric effect of xylene on an organoclay-containing composite. IEEE Transactions on Dielectrics and Electrical Insulation, 2019, 26, 890-897.	1.8	2
98	Influence of the Amount of Silane Coupling Agent on the Dielectric Properties of AlN/Polypropylene Nanocomposites. , 2019, , .		2
99	Nanodielectrics. IEEE Transactions on Dielectrics and Electrical Insulation, 2020, 27, 335-335.	1.8	2
100	Influence of xylene on the dielectric response of an organoclay-containing nanocomposite. IET Nanodielectrics, 2020, 3, 62-67.	2.0	2
101	Lightning Protection of Wind Turbine Blades – How Supersizing Has Created New Challenges for Nanodielectrics Research. IEEE Electrical Insulation Magazine, 2021, 37, 6-20.	1.1	2
102	Modification of Polypropylene-based Cable Insulation Material. DEStech Transactions on Engineering and Technology Research, 2019, , .	0.0	2
103	Dielectric Response in Epoxy Nanocomposites Incorporating Various Nano-silica Architectures. , 2021, , .		2
104	The complex permittivity of epoxy based nanocomposites with alumina and magnesium oxide fillers at very low temperatures. , 2011, , .		1
105	Investigation of the morphology in AlN filled epoxy based composite materials. , 2015, , .		1
106	Moisture absorption behavior in silicon nitride epoxy nanocomposites. , 2017, , .		1
107	Modification of resin/hardener stoichiometry using POSS and its effect on the dielectric properties of epoxy resin systems. , 2017, , .		1
108	Dielectric Properties of Epoxy/POSS and PE/POSS Systems. Springer Series on Polymer and Composite Materials, 2018, , 233-254.	0.5	1

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109	The dielectric effect of xylene on an organoclay-containing composite. IEEE Transactions on Dielectrics and Electrical Insulation, 2019, 26, 890-897.	1.8	1
110	Space Charge and Breakdown Strength Behaviour of PP/POE/MgO Nanocomposites. , 2019, , .		1
111	Comparing the influence of organoclay on the morphology and dielectric properties of three thermoplastic polymers. , 2019, , .		1
112	The Dielectric Properties of PP-EVA-Organoclay Composites. , 2019, , .		1
113	Experimental study and numerical estimation of moisture effect on charge transport in polymer nanocomposites. Journal Physics D: Applied Physics, 2020, 53, 345304.	1.3	1
114	A Review on the Relevance of Standards for Silicone Insulating Liquids Used in Cable Sealing Ends. IEEE Electrical Insulation Magazine, 2021, 37, 33-40.	1.1	1
115	Characterization of Silicone Oil used in HV Cable Sealing Ends. Proceedings of the Nordic Insulation Symposium, 2019, , 28-31.	0.1	1
116	Influence of Monoalkoxy Silane on the Dielectric Response of Polypropylene Aluminium Nitride Nanocomposites. , 2020, , .		1
117	Effect of Shell-Thickness on the Dielectric Properties of TiO ₂ /SiO ₂ Core-Shell Nanoparticles filled Epoxy Nanocomposites. , 2020, , .		1
118	Evaluation of the Effect of Moisture on Dielectric Properties of Ester Liquids. , 2020, , .		1
119	New materials in high voltage technology. Elektrotechnik Und Informationstechnik, 2012, 129, 180-185.	0.7	0
120	Investigations of the morphology of various epoxy-based nanocomposites. , 2015, , .		0
121	Influence of water absorption on space charge behavior of epoxy nanocomposites. , 2016, , .		0
122	Report on DEIS summer school, june 2015 a breakthrough in nanodielectrics: PhD student revolution?. IEEE Electrical Insulation Magazine, 2016, 32, 50-51.	1.1	0
123	The influence of thermally aged surface of polyethylene blend films on space charge and charge transport dynamics. , 2017, , .		0
124	Electric field measurement in liquid dielectrics using Kerr effect. , 2017, , .		0
125	The Dielectric Effect of Xylene on an Organoclay-Containing Composite. , 2018, , .		0
126	The Dielectric Effect of Xylene on an Organoclay-Containing Composite. , 2018, , .		0

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127	Enhanced Electrical and Thermal Rating Materials for Renewable Power Cable Connections. , 2018, , .		0
128	Kerr Measurement Approaches in Propylene Carbonate under DC Electric Field. , 2018, , .		0
129	On The Design of The Structure of Epoxy Resin Networks. , 2018, , .		0
130	Dielectric and Mechanical Properties Evaluation of Polypropylene Containing Nitride-based Nanoparticles. , 2019, , .		0
131	Chapter 5 Characterization of Nanocomposites. , 2016, , 111-158.		0
132	Solvent Mixing and Its Effect on Epoxy Resin Filled with Graphene Oxide. , 2018, , .		0
133	Investigation of Different Commercial Boron Nitride Grades and their Effect on Loss Spectra in Epoxy Resins and Silicone Rubbers. , 2021, , .		0
134	Kerr Measurement Approaches in Propylene Carbonate under DC Electric Field. , 2018, , .		0