

# Peter H F Morshuis

## List of Publications by Year in descending order

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159  
papers

4,040  
citations

147566

31  
h-index

143772

57  
g-index

162  
all docs

162  
docs citations

162  
times ranked

1782  
citing authors

#	ARTICLE	IF	CITATIONS
1	Space Charge Measurement Equipment for Full-Scale HVDC Cables Using Electrically Insulating Polymeric Acoustic Coupler. IEEE Transactions on Dielectrics and Electrical Insulation, 2022, 29, 1053-1061.	1.8	17
2	Space Charge Behavior in Epoxy-Based Dielectrics: Progress and Perspective. Advanced Electronic Materials, 2022, 8, .	2.6	15
3	Ageing and reliability of electrical insulation: the risk of hybrid AC/DC grids. High Voltage, 2020, 5, 620-627.	2.7	29
4	An Approach to Insulation Condition Monitoring and Life Assessment in Emerging Electrical Environments. IEEE Transactions on Power Delivery, 2019, 34, 1357-1364.	2.9	67
5	Next generation polymeric high voltage direct current cables—A quantum leap needed?. IEEE Electrical Insulation Magazine, 2018, 34, 24-31.	1.1	43
6	Criteria influencing the selection and design of HV and UHV DC cables in new network applications. High Voltage, 2018, 3, 90-95.	2.7	33
7	Short-term and long-term breakdown analysis of electroactive polymer with and without nanofillers. Polymer Testing, 2017, 59, 136-141.	2.3	3
8	Epoxy-hBN nanocomposites: A study on space charge behavior and effects upon material. IEEE Transactions on Dielectrics and Electrical Insulation, 2017, 24, 1718-1725.	1.8	29
9	A development of space charge measurement device for model cable. , 2016, , .		0
10	Localization techniques of partial discharges at cable ends in off-line single-sided partial discharge cable measurements. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 428-434.	1.8	26
11	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
12	Why residual life estimation and maintenance strategies for electrical insulation systems have to rely upon condition monitoring. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 1375-1385.	1.8	25
13	Effect of water absorption on dielectric spectrum of nanocomposites. , 2016, , .		4
14	Chapter 8 Electrical Properties of Polymer Nanocomposites. , 2016, , 218-242.		1
15	DC breakdown strength of epoxy-boron nitride nanocomposites: Trend and reproducibility. , 2015, , .		6
16	Enhancing the thermal and electrical performance of epoxy microcomposites with the addition of nanofillers. IEEE Electrical Insulation Magazine, 2015, 31, 32-42.	1.1	49
17	Electrical conductivity, dielectric response and space charge dynamics of an electroactive polymer with and without nanofiller reinforcement. Smart Materials and Structures, 2015, 24, 075019.	1.8	16
18	Space charge analysis of modified and unmodified XLPE model-cables under different electric fields and temperatures. , 2015, , .		3

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19	Charge estimation methods in partial discharge cable tests. , 2015, , .		0
20	AC breakdown strength of epoxy-boron nitride nanocomposites: Trend & reproducibility. , 2015, , .		7
21	Partial discharge behavior of mineral oil based nanofluids. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 2747-2753.	1.8	42
22	Breakdown strength and electrical conductivity of epoxy-cubic boron nitride composites. , 2015, , .		3
23	Impact of particle distribution on the electrical conductivity of epoxy nanocomposites. , 2015, , .		3
24	Stress conditions in HVDC equipment and routes to in service failure. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 81-91.	1.8	43
25	A protocol for space charge measurements in full-size HVDC extruded cables. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 21-34.	1.8	79
26	Partial discharge analysis of gas insulated systems at high voltage AC and DC. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 218-228.	1.8	61
27	HVDC insulation and diagnostics. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 4-6.	1.8	14
28	The electrical breakdown strength of pre-stretched elastomers, with and without sample volume conservation. Smart Materials and Structures, 2015, 24, 055009.	1.8	43
29	Comparison of charge estimation methods in partial discharge cable measurements. IEEE Transactions on Dielectrics and Electrical Insulation, 2015, 22, 657-664.	1.8	33
30	The influence of interfaces and water uptake on the dielectric response of epoxy-cubic boron nitride composites. Journal of Materials Science, 2015, 50, 3929-3941.	1.7	6
31	Life-data analysis for condition assessment of high-voltage assets. IEEE Electrical Insulation Magazine, 2015, 31, 33-43.	1.1	5
32	Partial discharge recognition of insulation defects in HVDC GIS and a calibration approach. , 2015, , .		4
33	Monitoring HV transformer conditions: The strength of combining various diagnostic property observations. , 2015, , .		1
34	The role of particle distribution in the dielectric response of epoxy-boron nitride nanocomposites. Journal of Materials Science, 2015, 50, 1175-1186.	1.7	23
35	Influence of thick epoxy nanocomposite coatings on lightning impulse breakdown behavior in air. , 2014, , .		0
36	Statistical analysis of non-homogeneous life-data of 50 kV tap changers for residual life assessment purposes. , 2014, , .		0

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37	A Smart Grid approach to condition based maintenance of renewable energy assets. , 2014, , .		4
38	Negative LI breakdown behavior of electrodes with thin dielectric coatings in dry air at high pressure. , 2014, , .		2
39	The effect of nanosilica on the DC breakdown strength of epoxy based nanocomposites. , 2014, , .		5
40	A novel method of wind energy generation-the electrostatic wind energy converter. IEEE Electrical Insulation Magazine, 2014, 30, 8-20.	1.1	9
41	A unified model for the permittivity and thermal conductivity of epoxy based composites. Journal Physics D: Applied Physics, 2014, 47, 415502.	1.3	22
42	How different fillers affect the thermal conductivity of epoxy composites. , 2014, , .		7
43	The electrical breakdown of thin dielectric elastomers: thermal effects. Proceedings of SPIE, 2014, , .	0.8	20
44	Modeling the thermal conductivity of polymeric composites based on experimental observations. IEEE Transactions on Dielectrics and Electrical Insulation, 2014, 21, 412-423.	1.8	52
45	Inaccuracies in the dielectric permittivity due to thickness variation. , 2014, , .		3
46	Modeling the dielectric response of epoxy based nanocomposites. , 2014, , .		3
47	A new advanced Sensor for corrosive sulphur detection and monitoring. , 2014, , .		2
48	An investigation into the dynamics of partial discharge propagation in mineral oil based nanofluids. , 2014, , .		2
49	The effect of surface treatment of silica nanoparticles on the breakdown strength of mineral oil. , 2014, , .		17
50	Partial discharge analysis and monitoring in HVDC gas insulated substations. , 2014, , .		4
51	Precautionary remarks regarding synthesis of nanocomposites. , 2014, , .		4
52	Experimental investigation on the role of corrosive sulphur on the development of partial discharges in power transformers. , 2014, , .		2
53	Analysis of the arcing process in on-load tap changers by measuring the acoustic signature. , 2014, , .		3
54	Measuring and modeling the thermal conductivity of epoxy - Boron nitride nanocomposites. , 2014, , .		7

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55	Evaluating the effect of particle distribution and dispersion on the dielectric response of boron nitride - epoxy nanocomposites. , 2014, , .		8
56	Properties of Mineral Oil based Silica Nanofluids. IEEE Transactions on Dielectrics and Electrical Insulation, 2014, 21, 1100-1108.	1.8	142
57	Space charge accumulation in polymeric DC mini-cables. , 2013, , .		10
58	Modelling the thermal conductivity of epoxy nanocomposites with low filler concentrations. , 2013, , .		3
59	Life curves for new and thermally aged oil-impregnated paper insulation. , 2013, , .		6
60	Interfaces: To be avoided or to be treasured? What do we think we know?. , 2013, , .		9
61	Thermal conductivity of fullerene and TiO <sub>2</sub> nanofluids. , 2013, , .		4
62	Reliability estimation for populations with limited and heavily censored failure information. , 2013, , .		2
63	AC breakdown voltage and viscosity of mineral oil based fullerene nanofluids. , 2013, , .		7
64	Developing an experimental method for a cavity PD based life model. , 2013, , .		4
65	Modeling of the permittivity of epoxy nanocomposites. , 2013, , .		5
66	The influence of thin dielectric coatings on LI and AC breakdown strength in SF <sub>6</sub> and dry air. , 2013, , .		3
67	Influence of manufacturing on dielectric performance of nanocomposites. , 2013, , .		5
68	Evaluation of apparent trap-controlled mobility and trap depth in polymeric HVDC mini-cables. , 2013, , .		2
69	DC breakdown investigation on polyurethane elastomeric films with and without deposited electrodes. , 2013, , .		4
70	Thermal conductivity of polymeric composites: A review. , 2013, , .		49
71	Influence of environmental and operational conditions on breakdown voltage of oil in switchgear. , 2012, , .		1
72	Breakdown characteristics of thermally degraded oil-impregnated insulation. , 2012, , .		1

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73	Life prediction for transformer winding insulated with epoxy resin and thickness-reduced paper through voltage endurance tests. , 2012, , .		1
74	A study of electrical tree partial discharges in nanocomposite epoxy. , 2012, , .		5
75	Challenges of using electroactive polymers in large scale wave energy converters. , 2012, , .		6
76	Anomalous behaviour of the dielectric spectroscopy response of nanocomposites. IEEE Transactions on Dielectrics and Electrical Insulation, 2012, 19, 107-117.	1.8	90
77	Life prediction of a full-scale transformer winding insulation through statistical analysis of AC voltage endurance test data. IEEE Transactions on Dielectrics and Electrical Insulation, 2012, 19, 460-471.	1.8	9
78	Time-to-breakdown and breakdown voltage for oil-impregnated insulation subjected to thermal aging. , 2012, , .		6
79	The role of supply frequency in the evaluation of partial discharge inception voltage in XLPE-embedded cavities. , 2012, , .		13
80	Characterization of epoxy microcomposite and nanocomposite materials for power engineering applications. IEEE Electrical Insulation Magazine, 2012, 28, 38-51.	1.1	86
81	AC breakdown voltage and viscosity of mineral oil based SiO <sub>2</sub> nanofluids. , 2012, , .		35
82	Evaluation of space charge accumulation processes in small size polymeric cable models. , 2012, , .		8
83	Impact of postcuring and water absorption on the dielectric response of epoxy-based composites filled with MgO nanoparticles. , 2011, , .		6
84	The complex permittivity of epoxy based nanocomposites with alumina and magnesium oxide fillers at very low temperatures. , 2011, , .		1
85	Three-phase lewis-nielsen model for the thermal conductivity of polymer nanocomposites. , 2011, , .		6
86	Statistical analysis of subcomponent failures in power transformers. , 2011, , .		7
87	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
88	Space charge behavior of magnesium oxide filled epoxy nanocomposites at different temperatures and electric field strengths. , 2011, , .		20
89	Dielectric properties of XLPE/SiO <sub>2</sub> nanocomposites based on CIGRE WG D1.24 cooperative test results. IEEE Transactions on Dielectrics and Electrical Insulation, 2011, 18, 1482-1517.	1.8	135
90	Proposal of the polymer chain alignment model. , 2011, , .		34

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91	Defects and interfaces at DC voltage. , 2011, , .		7
92	IEEE DEIS and Smart Grid: How to fit in. , 2010, , .		2
93	Electrical properties calculation of HVDC bushing. , 2010, , .		3
94	Nanodielectrics: A panacea for solving all electrical insulation problems?. , 2010, , .		18
95	Dielectric frequency response of epoxy-based composites with various silica filler sizes. , 2010, , .		2
96	Effects of inorganic nanofillers and combinations of them on the complex permittivity of epoxy-based composites. , 2010, , .		5
97	Effect of filler size on complex permittivity and thermal conductivity of epoxy-based composites filled with BN particles. , 2010, , .		13
98	Dielectric properties and space charge behavior of MgO-epoxy nanocomposites. , 2010, , .		31
99	Dielectric response and thermal conductivity of epoxy resin filled with nanoalumina particles of different size in $\alpha$ , $\beta$ ; and $\gamma$ phase. , 2010, , .		4
100	DC conduction in epoxy based nano- and mesocomposites. , 2010, , .		4
101	Life prediction for epoxy resin insulated transformer windings through accelerated aging tests. , 2010, , .		3
102	Short term DC breakdown strength in epoxy based BN nano- and microcomposites. , 2010, , .		31
103	Short term DC breakdown and complex permittivity of $Al_2O_3$ - and MgO-epoxy nanocomposites. , 2010, , .		5
104	Aging of oil-impregnated transformer insulation studied through partial discharge analysis. , 2010, , .		6
105	Experimental investigation on dielectric spectroscopy of insulating paper and oil. , 2010, , .		3
106	Thermal and electrical behaviour of epoxy-based microcomposites filled with $Al_2O_3$ and $SiO_2$ particles. , 2010, , .		10
107	Preparation and dielectric properties of epoxy - BN and epoxy - AlN nanocomposites. , 2009, , .		17
108	Synthesis and dielectric properties of epoxy based nanocomposites. , 2009, , .		17

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109	Thermal conductivity of nano-filled epoxy systems. , 2009, , .		31
110	Thermal behaviour of epoxy resin filled with high thermal conductivity nanopowders. , 2009, , .		30
111	Feature article - Polymeric HVDC cable design and space charge accumulation. Part 2: insulation interfaces. IEEE Electrical Insulation Magazine, 2008, 24, 14-24.	1.1	148
112	HVDC Cable Design and Space Charge Accumulation. Part 3: Effect of Temperature Gradient [Feature article]. IEEE Electrical Insulation Magazine, 2008, 24, 5-14.	1.1	160
113	Controlled and efficient electrohydrodynamic spraying of water in an electrostatic wind energy converter (EWICON). , 2008, , .		0
114	The Investigation of the Permittivity of Syntactic Foam under varying Humidity. , 2008, , .		3
115	Service Availability Assessment of Mass-insulated Power Cables by Means of Statistical Analysis. Electrical Insulation, IEEE International Symposium on, 2008, , .	0.0	1
116	Optimizing trading capabilities and reliability of power transmission networks. Electrical Insulation, IEEE International Symposium on, 2008, , .	0.0	5
117	Application of statistical tools for assessing service availability of high voltage power cables. , 2008, , .		2
118	Permittivity in Epoxy based Syntactic Foam Nanocomposites. , 2008, , .		4
119	The effect of temperature on space charge accumulated at chemical and physical interfaces of HVDC polymeric insulation systems. , 2007, , .		6
120	Optimising electrode design and positioning for EHDA produced particles in a EWICON. , 2007, , .		2
121	Converting wind energy to electrical energy using charged droplets in an electric field. , 2007, , .		4
122	Dielectric behavior of syntactic foams at low temperatures and frequencies. , 2007, , .		4
123	Dielectric Interfaces in DC Constructions: Space Charge and Polarization Phenomena. , 2007, , .		28
124	Calculation and Measurement of Space Charge in MV-size Extruded Cables Systems under Load Conditions. , 2007, , .		15
125	Influence of ambient temperature on the failure behavior of cable joints. , 2007, , .		7
126	Polymeric HVDC Cable Design and Space Charge Accumulation. Part 1: Insulation/Semicon Interface. IEEE Electrical Insulation Magazine, 2007, 23, 11-19.	1.1	190

#	ARTICLE	IF	CITATIONS
127	Characterization of XLPE MV-size DC Cables by Means of Space Charge Measurements. , 2006, , .		4
128	The Effect of Temperature Gradient on Space Charge and Electric Field Distribution of HVDC Cable Models. , 2006, , .		14
129	Application of statistical methods for making maintenance decisions within power utilities. IEEE Electrical Insulation Magazine, 2006, 22, 24-35.	1.1	43
130	Space charge measurements on multi-dielectrics by means of the pulsed electroacoustic method. IEEE Transactions on Dielectrics and Electrical Insulation, 2006, 13, 272-281.	1.8	75
131	The Use of Cable System Models for the Assessment of Space Charge Behaviour in Full-size DC Cable Systems. , 2006, , .		3
132	Failure analysis of in service failed resin cable joints by means of a statistical approach. , 2006, , .		2
133	Statistical analysis of in service failed epoxy resin bushings in a 50 kV switchgear assembly. , 2006, , .		2
134	Degradation of solid dielectrics due to internal partial discharge: some thoughts on progress made and where to go now. IEEE Transactions on Dielectrics and Electrical Insulation, 2005, 12, 905-913.	1.8	226
135	Partial discharges at dc voltage: their mechanism, detection and analysis. IEEE Transactions on Dielectrics and Electrical Insulation, 2005, 12, 328-340.	1.8	262
136	Space charge phenomenology in polymeric insulating materials. IEEE Transactions on Dielectrics and Electrical Insulation, 2005, 12, 754-767.	1.8	98
137	Demonstrating a threshold for trapped space charge accumulation in solid dielectrics under dc field. IEEE Transactions on Dielectrics and Electrical Insulation, 2005, 12, 612-620.	1.8	90
138	PD Recurrence in Cavities at Different Energizing Methods. IEEE Transactions on Instrumentation and Measurement, 2004, 53, 251-258.	2.4	68
139	Electric fields in HVDC paper-insulated cables. IEEE Transactions on Dielectrics and Electrical Insulation, 1998, 5, 225-236.	1.8	112
140	Space charge measurements on impregnated paper: a review of the PEA method and a discussion of results. IEEE Electrical Insulation Magazine, 1997, 13, 26-35.	1.1	106
141	Partial discharge. Part XXIV: The analysis of PD in HVDC equipment. IEEE Electrical Insulation Magazine, 1997, 13, 6-16.	1.1	53
142	Effect of electric field strength and exposure time on epoxy and high density polyethylene measured by positron annihilation lifetime. Journal of Radioanalytical and Nuclear Chemistry, 1996, 211, 77-83.	0.7	1
143	Partial discharge mechanisms in voids related to dielectric degradation. IET Science, Measurement and Technology, 1995, 142, 62-68.	0.7	37
144	The scientific career of Frederik Hendrik Kreuger. IEEE Transactions on Dielectrics and Electrical Insulation, 1995, 2, 711-716.	1.8	2

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145	Assessment of dielectric degradation by ultrawide-band PD detection. IEEE Transactions on Dielectrics and Electrical Insulation, 1995, 2, 744-760.	1.8	86
146	Mechanisms of surface charge accumulation in SF6. Archiv Fuer Elektrotechnik, 1994, 77, 151-155.	0.1	5
147	The calibration of a capacitive probe for surface charge measurements. Archiv Fuer Elektrotechnik, 1990, 73, 337-341.	0.1	3
148	Automized Recognition of Partial Discharges in Cavities. Japanese Journal of Applied Physics, 1990, 29, 1329-1335.	0.8	37
149	Transition from streamer to Townsend mechanisms in dielectric voids. Journal Physics D: Applied Physics, 1990, 23, 1562-1568.	1.3	77
150	Partial discharges in 3-core belted power cables. IEEE Transactions on Electrical Insulation, 1989, 24, 591-598.	0.8	14
151	A new concept for medium-voltage cables: improved voltage life of belt-type cables. IEEE Transactions on Electrical Insulation, 1989, 24, 1063-1070.	0.8	2
152	The effect of different types of inclusions on PE cable life. IEEE Transactions on Electrical Insulation, 1988, 23, 1051-1055.	0.8	20
153	Optical detection of surface discharges. IEEE Transactions on Electrical Insulation, 1988, 23, 447-449.	0.8	11
154	Technical reports-a new cable phenomenon. IEEE Electrical Insulation Magazine, 1988, 4, 56-58.	1.1	2
155	Detection of water trees in medium voltage XLPE cables by return voltage measurements. , 0, , .		6
156	Partial discharge detection using oscillating voltage at different frequencies. , 0, , .		13
157	Computer simulation of space charge distribution in an XLPE-EPR sandwich. , 0, , .		9
158	Identification of partial discharge defects in transformer oil. , 0, , .		5
159	Space charge and electric field characteristics of polymeric-type MV-size DC cable joint models. , 0, , .		14