



**SC D1 MATERIALS AND EMERGING TEST TECHNIQUES**

**Published Technical Brochures of SC 15 & SC D1**

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**TECHNICAL BROCHURES**

No. / Title	Working Body	Published
691 Pollution test of naturally and artificially contaminated insulators	WG D1.44	2017-07
676 Partial discharges in transformers	WG D1.29	2017-02
662 Guidelines for partial discharge detection using conventional (IEC 60270) and unconventional methods	WG D1.37	2016-08
661 Functional nanomaterials for electric power	WG D1.40	2016-08
654 UHF partial discharge detection system for GIS: Application guide for sensitivity verification	WG D1.25	2016-04
646 HVDC Transformer insulation: oil conductivity	JWG A2/D1.41	2016-01
644 Common Characteristics and Emerging Test Techniques for High Temperature Superconducting Power Equipment	WG D1.38	2015-12
636 Diagnostics and accelerated life endurance testing of polymeric materials for HVDC application	WG D1.23	2015-11
634 Impact of rain on insulator performance	WG D1.45	2015-10
627 Condition assessment for fluid-filled insulation in AC cables	WG D1.34	2015-07
620 Radiation ageing of polymeric insulating materials and relevant testing	WG D1.42	2015-06
611 Feasibility study for a DC Tracking & Erosion test	WG D1.27	2015-03
595 Fingerprinting of polymeric insulating materials for outdoor use	WG D1.27	2014-10
593 Past, present and future of IEC and IEEE high-voltage and high current testing standards	WG D1.35	2014-08

571	Optimized gas-insulated systems by advanced insulation techniques	WG D1.28	2014-04
526	Oxidation stability of insulating fluids	WG D1.30	2013-02
525	Risk assessment on defects in GIS based on PD diagnostics	WG D1.03	2013-02
520	Material properties of solid HVDC insulation systems	WG D1.12	2012-12
519	Very Fast Transient Overvoltages (VFTO) in gas-insulated substations	WG D1.03	2012-12
506	Gas insulated systems for HVDC: DC stress at DC and AC systems	WG D1.03	2012-08
502	High-voltage on-site testing with partial discharge measurement	WG D1.33	2012-06
501	Basic principles to determine methane content in cross-linked in solid extruded insulation of MV and HV cables	WG D1.26	2012-06
494	Furanic compounds for diagnosis	WG D1.03	2012-03
493	Non-destructive water-tree detection in XLPE cable insulation	JWG D1/B1.20	2012-03
489	Requirements on testing flammability of polymeric materials for outdoor insulation	WG D1.14	2012-02
488	Resistance to weathering and UV radiation of polymeric materials for outdoor insulation	WG D1.14	2012-02
478	Important material properties of RTV silicone rubber insulator coatings	WG D1.14	2011-10
451	Polymer nanocomposites: fundamentals and possible applications to power sectors	WG D1.24	2011-02
444	Guidelines for unconventional partial discharge measurements	WG D1.33	2010-10
443	DGA in non-mineral oils and load tap changers and improved DGA diagnosis criteria	WG D1.32	2010-10
442	Evaluation of dynamic hydrophobicity properties of polymeric materials for non-ceramic outdoor insulation: retention and transfer of hydrophobicity	WG D1.14	2010-10
420	Generic guidelines for life time condition assessment of HV assets and related knowledge rules	WG D1.17	2010-06

418	Status of development and field test experience with high-temperature superconducting power equipment	WG D1.15	2010-06
414	Dielectric response diagnoses for transformer windings	WG D1.01	2010-04
413	Insulating oil regeneration and dehalogenation	WG D1.01	2010-04
409	Report on gas monitors for oil-filled electrical equipment	WG D1.01	2010-02
366	Guide for partial discharge measurements in compliance to IEC 60270	WG D1.33	2008-12
323	Ageing of cellulose in mineral-oil insulated	TF D1.01.10	2007-10
297	Practical aspects of the detection and location of partial discharges in power cables	TF D1.02.05	2006-06
292	Data mining techniques and applications in the power transmission field	TF D1.11.04	2006-04
288	Space charge measurement in dielectrics and insulating materials	TF D1.12.1	2006-02
286	Instrumentation and measurements for in-service monitoring of high voltage insulation	TF D1.02.08	2005-12
260	N <sub>2</sub> /SF <sub>6</sub> mixtures for gas insulated systems	TF D1.03.10	2004-10
255	Material properties for non-ceramic outdoor insulation	WG D1.14	2004-08
254	Dielectric response methods for diagnostics of power transformers	TF D1.01.09	2002
228	Service aged insulation guidelines on managing the ageing process	WG D1.11	2003-06
226	Knowledge rules for partial discharge diagnosis in service	WG D1.11	2003-04
225	Electrical power systems 2020	JAG D1.02/TC	2002-08
224	Emerging technologies and material challenges	JAG D1.02/TC	2002-08