

CALL FOR PAPERS

Ultrahigh voltage (UHV) power transmission, that is, AC 1000 kV or DC ± 800 kV, is the key to resolve the deep-seated contradiction between the distributed energy and the fast-growing electric power demand. With the large-scale construction and operation of UHV projects, it is of critical significance to ensure the safety and stability of UHV grid. Thus, the primary concern is how to ensure the reliability of core UHV equipment, including converter transformers and power cables.

However, insulation in UHV equipment still widely adopt traditional insulating materials which experience extremely complicated operation conditions, including complex structure, changeable climate, high electric field, combined AC-DC, and multi-physical-field. Dielectric insulation degradation and related electrical effects are continuously proceeding, which make the equipment in great danger during the long-term operation.

This special issue aims to publish high-quality research papers and review articles which address latest progress in the field of dielectric insulation degradation. The innovative and high-quality materials which have not been submitted to, or published by, other journals or in conference records, are required.

Potential topics include but are not limited to the following:

- ▶ Aging, degradation, and failure of inner and outdoor insulation
- ▶ Diagnostics, maintenance, remaining life estimation, and management
- ▶ Space, surface and interfacial charges, and related effects
- ▶ Electrical treeing
- ▶ Electric discharge phenomena, including surface flashover, partial discharge, prebreakdown and breakdown
- ▶ New materials and their application
- ▶ Theories, methods, and models
- ▶ Technical challenges encountered with UHV dielectric insulation degradation

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/je/electrical.engineering/diid/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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