D1 - Materials and emerging test techniques

Mission

To facilitate and promote the progress of engineering and the international exchange of information and knowledge in the field of materials and emerging test techniques. To add value to this information and knowledge by means of synthesizing state-of-the-art practices and developing guidance and recommendations.

Technological field of activity

- The properties and performance characteristics of solids, liquids and gases used in the construction of AC and DC electrical transmission and distribution system components;
- Investigating and recommending new and revised test and diagnostic techniques to support the testing of AC and DC electrical transmission and distribution system components;
- Diagnostic techniques and related knowledge rules to support the asset management of electrical apparatus.

Scope

The activities of SC D1 concerns the properties, performance and testing of solids, liquids and gases under either AC, DC, impulse, and other electrical stresses.

- Properties and performance characteristics of new and existing conducting and insulating materials for electro-technology;
- Ageing of conducting and insulating materials under electrical, thermal, chemical, and electro-chemical stresses;
- Diagnostic and monitoring techniques, supported by knowledge and digital interpretation;
- Multi-component insulating arrangements with one or more dielectric materials used in conjunction with associated conducting parts;
- Emerging test techniques and changes to existing methods for the evaluation of insulator or conductor performance and/or condition;
- Provision of timely information on new developments and trends in the field of materials and emerging test techniques to other Study Committees and support for their analysis of the introduction and application of these materials and techniques.

Working groups
View a list of CIGRE's current working groups including for D1 here.

Publications

View all publications for Study Committee D1 on eCIGRE

Key contacts

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