

Methodological aspects of adequate modeling of the quenching process in insulated and non-insulated REBCO-tape-wound multi-double-pancake high-field magnets

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Methodological aspects of modeling of the quench process in insulated and non-insulated ("metal-insulated") multi-double-pancake HTS REBCO-tape-wound coils are considered consistently and systematically, taking into account all important effects and inputs affecting the quench behavior and characteristics. Examples of comprehensive quench simulation in real magnetic systems are demonstrated using modern presentation tools. The presented models are not based on the finite-element method.

Keywords

No-insulation coils, quench simulation, complex simulation model, non-linearities

Category

Quench experiment, simulation and analysis for all classes of LTS and HTS magnets

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