

Superconducting Feeder Cable Laying and Stress Relaxation Method for Cooling

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The superconducting feeder cable shrinks by thermal stress during cooling process. When a long superconducting feeder cable is constructed along a railway line, it is needed to take countermeasures against the cable shrink. In this paper, we introduce a suitable method of laying a 300-m class superconducting feeder cable along the test track. We also report that the method is suitable for this cable, because no buckling and rupture points are observed in the X-ray radiograph taken over the whole length of the cable after its installation and transmission test was able to be conducted successfully with the cable.