MT29 Abstracts and Technical Program



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Fri-Af-Po.08-04: Study on Superconducting Performance of Ultra-fine strand Nb3Al Cable fabricated by React & Wind method in Solenoid Coil

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SuperKEKB accelerator is considering the introduction of superconducting sextupole magnets to improve collision performance. In addition to the main sextupole coil, three types of correction coils will be incorporated in this superconducting magnet. We are developing the correction coils using ultra-fine strand Nb3Al superconducting cables with strand diameters less than 50 um fabricated by the React & Wind method. In this paper, we report the measurement results of the superconducting performance of Nb3Al cables of 0.6 to 0.8 m in length in the solenoid coils with radius of curvature from 15 mm to 25 mm.

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