

Preparation and characteristic of long 19-filamentary Bi-2223 tapes and coil

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Abstract

Long 19-filamentary Bi-2223 tapes were prepared using the so called "powder-in-tube" method. In the preparation, two types of precursor powders and two different reduction rates during rolling were used. Also two rolling method, which resulted in different filament geometry, were used. The characteristics of the tapes will be presented. Also A coil was prepared using two 56 m-long 19-filament tape. It was consisted of two double pancake coils. Each pancake, which is separated by FRP spacer, was composed of 98 turns. The experimental results will be presented and compared to the simulation result.