

Recent Status of Fujikura's 2G HTS Wire

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Abstract — Fujikura has manufactured long-length 2G HTS wires to meet the requirements by hot-wall PLD method and IBAD technique. Recently HTS wires of high uniformity in critical current are required for several superconducting applications. We updated the manufacturing of HTS wires with 2 - 3 - 4 - 12 mm in width. Particularly for optimizing the mechanical properties, we were improving the process of film deposition and the slitting process with laser. From 2013 onward, we adopted a laser slitting method, which proved to be the key point to control cracking of the REBCO film at the slit edges. As a result, delamination could be suppressed and our 2G HTS wires got improved reliability. In this presentation, the recent status and activities of REBCO HTS tape processing at Fujikura Ltd. are introduced.

Keywords (Index Terms)— High Temperature Superconductor, REBCO, coated conductor, RE123, superconducting wire, IBAD, PLD, thin films