

## Investigation of REBCO Twisted Stacked-Tape Cable Conductor Performance

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**Abstract** - Performances of Twisted Stacked-Tape Cables (TSTC) made of YBCO tapes were discussed for self-field and high-field operations. Power transmission cables of a single stack cable and a 3-channel conductor were evaluated by self-field distributions. A new concept of a double coaxial cable was discussed to obtain a high performance, high current density power cable. High field test results of 50-tape and 40-tape TSTC conductors were summarized, and their degradations were evaluated with single-tape data measured.

**Keywords** - REBCO, HTS coated conductors, twisted stacked-tape cables, high current densities.