

Towards the Design of Power Switches Utilizing HTS Material

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Abstract- Conventional superconducting switches for power applications, which operate at liquid helium temperature, generally utilize Nb-Ti superconductor in a cupro-nickel matrix. For superconducting circuits based on High Temperature Superconductors (HTS) that work at higher temperatures, the associated superconducting switches must also be based on HTS. This paper addresses the issues concerning the requirements and the appropriate design of HTS switches, including approaches to fast triggering.

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