

Poster

The Fabrication of a Low Thermal Conductivity Superconducting Flat Flexible Cable with Low Inductance Traces and Interconnects

Miguel Daal (UC Berkeley)

Co-Authors: N Kellaris, N Zobrist, E Kramer, B Sadoulet, S Golwala, M Hollister, R Partridge, G Godfrey, D Nelson

We present a fabrication pathway for creating a flat flexible cable useful in low temperature experiments. The cable features polyimide dielectric layers, lithographically defined superconducting traces etched from thin foil, and plated through hole connections to the superconducting traces. Material sourcing and interconnect solutions are suggested. Performance data, including thermal conductivity data, from a test cable are presented.