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THE EFFECT OF VARIABLE MICROWAVE POWER ON THE LOW-FIELD ABSORPTION IN NANO NICKEL ADDED TO YBCO POWDER

Thursday, 11 July 2019 15:00 (2 hours)

Measurement of microwave properties of high Tc superconductors (HTSC) has fundamental physical and technological relevance. HTSC are granular in nature and contain many Josephson junctions or weak links. We have measured the microwave response of NI-YBCO powder, using low field dependent microwave absorption (LFDMA) technique. The existence of peaks in LFDMA is well-established while dependence of peak position (Hm) on temperature is not very dear. The origin of LFDMA in HTSC has been a subject of continued debate. The model proposed by Dulcic et al., with modification explains the most of the observations of LFDMA. The model is based on the microwave loss mechanism in the single representative resistively shunted Josephson junction.

Apply to be
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no

Level for award
 (Hons, MSc,
   PhD, N/A)?

n/a

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