Microwave surface impedance of thin film high temperature superconductors

University of Birmingham - Survey of microwave surface impedance data of high

Microwave Power Dependence of Surface Resistance of High-Temperature Superconductor $YBa_2Cu_3O_x$ Films by Dielectric Resonator Method

H. Otura,[1] M. Marrugeau,[1] K. Develos-Bagarinao,[1] Y. Mawatari,[1] H. Yamasaki,[1] and S. Kosaka[2]

Description: -
-Microwave surface impedance of thin film high temperature superconductors
-Microwave surface impedance of thin film high temperature superconductors
Notes: Thesis (Ph.D) - University of Birmingham, School of Physics and Space Research, Faculty of Science.
This edition was published in 1996

Filesize: 62.102 MB

Tags: #High

US5693595A

These films are just of the form and size which give the highest values of superconducting properties, such as citical temperature, critical current density and microwave surface conductance. Microwave devices are fabricated from HTS thin films with dimensions of a few square centimetres. It is found that, for a thinner superconducting film, the effective surface resistance is a strong function of the frequency, and the effective surface reactance exhibits a peak and a dip in the frequency-domain.

High

The termination includes a epitaxially-formed thin-film capacitor integral with the resistor.

Microwave device applications and high

The substrate can be lanthanum aluminate, and the high-temperature superconductive film can be a yttrium-barium-copper-oxide film. Experiments are performed in a dielectrically loaded cavity operating at 7 GHz.

Microwave and Millimeter Wave Experimental Technique and Equipment for High

Ground plane 30 can be formed on reverse side 11 of substrate 40, as described above. In this paper, a numerical solution to the estimation of superconducting thin film surface impedance is presented. You have requested a machine translation of selected content from our databases.

Microwave Dynamics of Quasiparticles and Critical Fields in Superconducting Films

It is preferred that oxygen be flowing through the furnace at a rate of 1000 sccm during the entire heating and cooling time.

Microwave applications of high

Google has not performed a legal analysis and makes no representation or warranty as to the accuracy of the list. The termination can also be used with other HTS epitaxial thin-film microwave devices such as, for example, delay lines and switched filterbanks. At present, in conventional planar microwave technology, terminations can be made by mounting a ceramic resistor that matches the characteristic impedance of the line to be terminated.

Microwave Properties of a High

An explanation is proposed according to which this decrease occurs due to an additional high frequency quasiparticle current caused by the combined presence of both static and high frequency fields.

Related Books

- Memoir, geographical, political, and commercial, on the present state, productive resources, and cap
- Soeur la terre - la lumière, le son, la communication/ Henriette Major; Conception visuelle Claude L
- História da cartografia na obra do 2.′ Visconde de Santarém - exposição cartográfica
- Cantar de Mio Cid
- Fifty modern poems.