

# Abstracts

## Analysis of HTS Filters Using Novel Nonlinear Phenomenological Two Fluid Model

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*M. Megahed, S. El-Ghazaly and A. Fathy. "Analysis of HTS Filters Using Novel Nonlinear Phenomenological Two Fluid Model." 1996 MTT-S International Microwave Symposium Digest 96.3 (1996 Vol. III [MWSYM]): 1497-1500.*

A novel nonlinear phenomenological two fluid model for High Temperature Superconductor (HTS) is proposed. The model combines the physics associated with the Ginzburg-Landau expressions and the required simplicity obtained from the linear London's equations. An empirical formula for the nonlinear surface impedance is suggested based on the developed model. Analysis of HTS filter using this novel nonlinear formulation is presented.

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