

# Abstracts

## Analysis of the Power Loss in the Coupling Mechanism of a Cavity Resonator (Short Papers)

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*M. Danielsen. "Analysis of the Power Loss in the Coupling Mechanism of a Cavity Resonator (Short Papers)." 1972 Transactions on Microwave Theory and Techniques 20.11 (Nov. 1972 [T-MTT]): 758-760.*

An analysis of a lossy coupling mechanism is presented. It is found that the reciprocal internal Q factor is augmented by a contribution  $(1/2)\zeta(1/Q_{\text{sub ex}})$ , where  $\zeta$  depends on the Parameters of the coupling mechanism and  $Q_{\text{sub ex}}$  is the external Q factor. The theory is applied to analyze the coupling to a superconducting high-Q cavity.

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