

Multi-Harmonic Cavities with Suppression of Surface Pulsed Heating and Field Emission

Tuesday 5 November 2013 12:00 (30 minutes)

Multi-harmonic cavities that are designed for RF breakdown experiments are described. The fundamental TM₀₁₀ and its higher harmonic, either TM₀₂₀, or TM₀₁₁, or TM₀₁₂ modes of the cavities are to be excited coherently by an external RF source in the expectation of lowering surface field emission and/or surface pulsed heating, so as to reduce breakdown probability and possibly achieve an increase in acceleration gradient.

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Session Classification: Experimental 1 - rf systems