

INTEGRATED NIOBIUM THIN FILM AIRBRIDGES AS VARIABLE CAPACITORS FOR GHZ TUNING CIRCUITS

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Superconducting GHz electronics can be improved by variable tuning circuits. We present a low temperature ($< 200^{\circ}\text{C}$) process for the fabrication of niobium (Nb) thin film air bridges as variable capacitors, which can be integrated in Nb superconducting electronics. These elements offer the application as an on-chip adjustment of filters, resonators and tuning circuits. Measurements and calculations of the electrostatic actuation of the bridges will be compared.