

The fabrication of 1.3 GHz single-cell cavities by using niobium materials with fine and medium grain sizes

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As a part of research into the fabrication methods for SRF (superconducting radio frequency) cavities used in ILC (International Linear Collider), two 1.3 GHz single-cell cavities have been fabricated successfully by using niobium materials with different grain sizes; fine grain (ASTM 5-6) and medium grain (ASTM 0-3). Both cavities have been fabricated using identical manufacturing equipments. After fabrication, They are shipped to KEK in Japan to conduct the surface treatments and VT (vertical test). We present a comprehensive overview of the cavity fabrication process and the performance test results in cryogenic temperature.

Paper submission Plan

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Best Presentation

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