

Thermal Quench Phenomena on the 1.3 GHz High Gradient Superconducting Cavities, E. KAKO, S. NOGUCHI, M. ONO, K. SAITO and T. SHISHIDO, KEK, National Laboratory for High Energy Physics - A series of cavity tests is continuing at KEK to achieve higher accelerating gradients and to study phenomena at high gradients. The results for the cavities with an RRR (residual resistivity ratio) of more than 200 showed that the thermal quenches at 1.8 K occurred at around 30 MV/m and the quench fields were not dependent on the RRR. The quench fields were lower than the theoretical value calculated for a defect free surface. The observations of the thermal quench phenomena at high field will be reported, and calculations in a thermal model on the quench fields will be also shown in this paper.