DIFFERENT MATERIALS BONDING BY HIP TECHNOLOGY AND THE RELIABILITY

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Abstract

HIP method is one of the key technologies for different materials bonding. We applied stainless steel tube bonded to niobium tube by HIP method to the beam pipe flange and the base plate of our high gradient ICHIRO 9-cell superconducting RF cavities. By using a leak test stand in KEK, we made leak test of those HIP parts. Those parts gave leak tightness in the super fluid liquid helium. The leak rate calculated from integration measurement were below 10^{-15} Atm cm^3/sec after the thermal cycle from 750°C to 2 K. In this workshop, the results of leak test of aluminum sealing will be also reported.

NO SUBMISSION RECIEVED