

**HOM Coupler for the Damped Cavity of High Brilliance SR Source**, Y. KAMIYA, T. KOSEKI, Institute for Solid State Physics, The University of Tokyo; M. IZAWA, Photon Factory, High Energy Accelerator Research Organization (KEK) - The damped cavity, developed in collaboration between ISSP of the University of Tokyo and KEK-PF, has SiC beam ducts for damping higher-order modes (HOM's). However, HOM's with frequencies lower than the cutoff frequency of the beam duct are trapped in the cavity and not absorbed by the SiC duct. Thus the trapped HOM's should be detuned by fixed tuners or their impedance should be decrease so as not to cause coupled-bunch instabilities. We designed the HOM damping coupler with a rod-type antenna. Some of trapped HOM's are expected to be easily damped by the coupler. The antenna is inserted in the cavity from a small opening on the fixed tuner block. In this paper, the low power study of the damping coupler will be presented.