

C-band Choke Mode Accelerator Structure for the Linear Collider, K. Kubo, H. MATSUMOTO, T. SHINTAKE, N. AKASAKA, KEK, National Laboratory for High Energy Physics; K. WATANABE, Tohoku Univ.; H.S. LEE, Pohang Accelerator Laboratory; O. TAKEDA, Toshiba Co. Keihin Product Operations - Choke mode structure is one type of wake field damped structure which has very simple shape compared with other damped structure. In the case of future linear collider, an emittance growth is big problem to obtain the high luminosity at a collision point. One of main reason is misalignment of the accelerator structures. It is necessary the alignment accuracy of the a few micro-meters with the conventional type of accelerator structures. However, it is clear that an alignment tolerance of a few micro-meter is very difficult to make more than the 8000 of structures. Thus, C-band frequency of choke mode structure has been proposed to align the structure with realistic accuracy such as 30- μm of the alignment tolerance which is allowable emittance growth. This paper will discuss the possibility to use the main linac for the centre of mass energy range of 300 to 500 GeV.