Contribution ID : **55** Type : **not specified**

ELECTROMAGNETIC DESIGN OF A RADIO FREQUENCY CAVITY

Abstract

Electromagnetic and mechanical studies has been performed with the aim of build a RF cavity in the S-Band (2998 MHz), the design takes into consideration the relativistic change in the electron velocity through the acceleration cavity. Four cavity cases were considered at different input energies, 50 KeV, 100 KeV, 150 KeV and 200 Kev, with output energies from 350 KeV to 5 MeV, the designs show good acceleration efficiency and beam coherence comparable to the one created in the cathode.

Primary author(s) : Mr. MONTOYA SOTO, Gaspar Ricardo (Universidad Autónoma de Sinaloa)

Co-author(s) : Mr. VALERIO LIZARRAGA, Cristhian Alfonso (student); Dr. PODESTA LERMA, Pedro Luis Manuel (FCFM-UAS); Dr. DUARTE GALVÁN, Carlos (Universidad Autónoma de Sinaloa); Dr. LEON MONZON, Ildefonso (Universidad Autonoma de Sinaloa)

Presenter(s) : Mr. MONTOYA SOTO, Gaspar Ricardo (Universidad Autónoma de Sinaloa)