Contribution ID : **106** Type : **not specified**

Status report on the R&D of a 5 T/m normal conducting quadrupole magnet for the 10 MeV electron Linac of the Mexican Particle Accelerator Community

Abstract

The Mexican Particle Accelerator Community (CMAP) has endeavored the development of a 10 MeV electron Linac. The Linac, at present under design, will make use of "x" normal conducting quadrupole magnets. The quadrupoles follow a standard type geometry and they will operate using Cu conductor at room temperature. This works reports the progress on the overall quadrupole design, i.e. analytic, magnetic, thermal and mechanical studies. In addition, the election the election of different materials for the yoke and how it affects the multipole content and gradient uniformity is explored. A winding strategy is discussed as well as the CMAP plan for the development of the first prototype.

Primary author(s) : Dr. CHAVEZ, Daniel (Universidad de Guanajuato / Texas A&M University)

Co-author(s) : Dr. MAURY CUNA, Humberto (Universidad de Guanajuato); Mr. VALERIO LIZARRAGA, Cristhian Alfonso (student); Mr. BASILIO, Jose Carlos (Programa DNyN Cinvestav-IPN); Prof. NAPSUCIALE, Mauro (Guanajuato University)

Presenter(s) : Dr. MAURY CUNA, Humberto (Universidad de Guanajuato)