## Simulation of Bremsstrahlung Photon Yield at (Turkish Accelerator and Radiation Laboratory at Ankara) TARLA

Nilgun Demir Uludag University

## Abstract

When an accelerated electron pass through an electric field can loose its energy and this energy is emitted as photon. This process is known as bremsstrahlung photon and it is important to know its intensity in order to perform a photonuclear reaction. Different types and thicknesses of electrical medium so-called radiator can be used for this purpose. A bremsstrahlung photon beam facility will take place in TARLA (Turkish Accelerator and Radiation Laboratory at Ankara) which is a first Turkish radiation facility. This facility is currently under construction and IR-FEL and bremsstrahlung photon beam facility will take place. In this work the photon yield obtained through bremsstrahlung processes has been simulated using a Monte Carlo code of FLUKA. Different electron beam energies striking the different target have been tested to obtain optimum photon yield.