The simulation of time resolution and ion transmission of TOF-E system

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Accelerator Mass Spectrometry (AMS) is presently the most sensitive technique for the measurement of the actinides, particularly for the measurement of ^{236}U. A Time of Flight-Energy (TOF-E) detection system is the most appropriate technique to discriminate ^{236}U ions from ^{238}U, ^{235}U and other interferences. Before the construction of actual TOF-E system, a SRIM (The Stop and Range of Ions in Matter) simulation of time resolution and ion transmission of TOF-E system has been simulated. The simulation results have shown that adopting the configuration of 8.9 ug/cm^2 carbon foil and one Microchannel Plate (MCP) is adequate to identify ^{236}U and its interferences.