DEAR management board of TANDEM

Experiment Title : Nuclear Astrophysics Experimental Environment Site
Experiment Responsable : Bordeanu Cristina
e-mail address : bordeanu@tandem.nipne.ro
phone : 5335

Short presentation of the scientific project

NUCLEAR ASTROPHYSICS MEASUREMENTS ARE DONE IN THE GAMOW PEAK. THE LAB CROSSSECTION IS USUALLY BIGGER THAN THE ONE FROM THE STELLAR ENVIRONMENT DUE TO THE ELECTRON SCREENING. CROSSSECTION CALCULATIONS DEPEND ON THE ACCURACY OF THE STOPPING POWER. BELLOW THE BRAGG PEK, THERE ARE FEW MEASUREMENTS AND THEY DIFFER TOO MUCH FOR THE ASTROPHYSICS ACCURACY. WE WANT TO COMPARE DIFFERENT METHODS OF MEASUREMNETS AND SEE HOW RESULTS MAY BE AFFECTED BY THEM AND BY THE TARGET PREPARATION (SYSTEMATICS DONE FOR THE FIRST TIME IN THE WORLD). THESE MEASUREMENTS ARE DONE FOR THE FIRST TIME IN ROMANIA.

Beam time request(unit=8 hours) : 42
Desired Period : -

Desired beam properties

Type : p, a, 12C
Energy(MeV) : 10
Intensity(p/nA) : 100
Vacuum Requests : 10^-7

Special requirements for detectors, electronics,aquisition system
---
detection systems exist

buy new detectors

Minimal information needed for the radiological risk evaluation:
---
a)Source activity : 100000 Bq
b)Use of open sources :
c)Estimate of the residual activity as a result of iradiation : 0
d)Means of storage/transportation for iradiated targets : no
---

from : 194.102.58.6 CAPTCHA=jnqrq
at : Friday 20th of September 2013 08:53:14 AM