

**Minutes of the ISAC Science Forum  
Held Wednesday October 26<sup>Th</sup>**

E989  $^{26g}\text{Al}(p,\gamma)$ .....C.Ruiz

The experiment has received 158h of good data collection so far. Peak  $^{26g}\text{Al}$  beam intensity seen by Dragon was  $5.8 \cdot 10^9/\text{sec}$  with a laser enhancement factor of 8-10 . The recently installed Iris ahead of the gas target helped reduce the random background between caused by  $^{26}\text{Na}$  beam spills. Pierre Bricault was able to further reduce the  $^{26}\text{Na}$  contamination level at the pre-separator magnet at a loss of 10% of the  $^{26}\text{Al}$  intensity delivered to DRAGON. More than 100 good coincident events are seen in a peak well centered in the gas target. An interesting but not yet understood timing correlation was measured between beam at Dragon and laser trigger.(must tell us something about the ionization distribution in the target extraction tube). Sometime will be given to the ISAC beam physicists to look for  $^{25}\text{Al}$  before starting a new run off resonance.

E 1027  $^{22}\text{Na}(p,\gamma)$ .....J.Caggiano

Following the recent publication of a new state in  $^{23}\text{Mg}$  that could be important for determining the production of  $^{22}\text{Na}$ , this experiment is going to measure the  $^{22}\text{Na}(p,\gamma)$  reaction at that resonance energy. Three phases are considered:  
Phase I( completed): determine the parameters for producing a uniform implanted  $^{22}\text{Na}$  target of  $\sim 300\mu\text{C}$  . This was achieved by implanting  $^{23}\text{Na}$  at the  $8\pi$  station and measuring the profile of the target  
Phase II : producing a  $^{22}\text{Na}$  target at the implantation station in the separator vault  
This is going to be attempted next week.  
Phase III measuring the  $^{22}\text{Na}(p,\gamma)$  cross-section at the University of Washington.

FEBIAD ion source latest news:

P.Bricault has reported that the endurance tests of the new FEBIAD ion source was cut short by a failure of the filament ( following a failure of a vacuum window few days earlier) .Modifications are being implemented on the support plates and on the filament to make them more rigid. That will cause a delay in implementing the design online and the December tests online is delayed till February 06. It was agreed that a reliable source has to developed and that the three weeks endurance test is necessary before committing to online operation. Also ionization efficiencies must be measured and shown to be at 10% level or higher.

Reports were given on recent conferences attended by ISAC users:

*York workshop:*

Pat Walden presented the conclusion of the York workshop on charged particle detectors at ISAC II. There is no need for a dedicated charged particle set-up at ISACII ( No TUDA II) -some experiments will use the present TUDA I equipment.

Most experiments at ISACII will use charged particle detectors in conjunction with EMMA or Tigress or both.

The need for a support group for auxillary detectors at ISAC should be considered .— This could be done through the new LADDII proposal and Pat will talk to Fabrice Retiere who is putting the CFI request together. Also an ISACII facility coordination centre should be considered (a la  $\mu$ SR MFA??).

*CERN-ISOLDE NuPEC*, Meeting to discuss the future of ISOLDE as requested by CERN management. Discussion about an upgrade to 5.3MeV/n and possible new driver ( High power Linac)

*,ISIS05 (Ganil)*

*Haw05,*