ISAC Science Forum, 2004-08-18

PRESENT: Friedhelm Ames, Gordon Ball (GCB), John Becker, John Behr, Pierre Bricault, Lothar Buchmann, Thomas Cocolios (TC), Barry Davids, Jens Dilling (JD), Marik Dombsky (MD), Greg Hackman (GH), Andy Hurst (AH), Peter Jackson (KPJ), Keerthi Jayamanna, Rob Kiefl, W. David Kulp (WDK), Jens Lassen, Johnathan Lee (JL), Andrew MacFarlane (AMcF), Colin Morton (ACM), Kei Minamisono, Jean-Michel Poutissou (JMP), Rene Roy, Johannes Schwarzenberg, Alan Shotter, Martin Smith (MBS), Mike Trinczek, John Wood, Ed Zganjar -- Notes transcribed by GH

Reports on Prior Beam times

E920, Collinear Laser Spectronscopy: Jonathan Lee

JL started by saying that he appreciated the help from TRIUMF, in overcoming laser problems and in making mass changes and yield measurements. The experiment started with A=130 but this was abandoned due to insufficient yield of ^{130}La (gh's note: not clear if this is yield of ^{130}La, or of ions in the isomeric *atomic* state.) For the remaining beam time, A=134 beams were used, but no collinear resonant signal was seen. The experimenters reported estimated yields at A=134 of 1.6×10^{7}/s Pr, 1.3×10^{6} Nd, and 1.5×10^{4} Pm. They also proposed a future plan of action to replace the Texas laser with one from McGill and to do offline tests with stable beam (from OLIS? gh). Discussion of long-lived contaminants and beam and spill monitors ensued.

OSAKA ^{11}Li: Peter Jackson

KPJ reported on behalf of Osaka that the beam rate was twice as high in this running period than in the previous (2002) runs; furthermore, the polarization was on average higher (50%) and stable, resulting in asymmetries twice as large as before. However the experimenters were in fact expecting ten times the ^{11}Li yield as before. It was noted that in general this target is not performing as well as expected with all yields down to about 10% of that observed with the best Ta targets from late 2003. KPJ inquired as to if and when a "post mortem" on this target would begin. (Note: this report was actually given as the last presentation of the Forum, and discussion of the target continued well past the end of the Forum.)

Report on Upcoming Beam Time

E973, Structure of ^{156}Dy from ^{156}Ho Decay: W. David Kulp

Transitional nuclei such as ^{156}Dy are rigorous tests of nuclear structure models, and good solid experimental data is needed to resolve outstanding and often controversial interpretations. In this experiment, ^{156}Ho will be produced and excited states and their decays will be measured with the 8π, SCEPTAR, and the new PACES array of Si(Li) detectors for electron conversion measurements. PACES was designed, fabricated, and tested by Ed Zganjar of Lousiana State University and brings a unique new capability to the 8π. Beam and tape-collector-motion cycling times spanning a few seconds to several hours will be executed to favour specific isomers of ^{156}Ho. MD recommended collection times no shorter than 0.1 s, as he had observed instabilities in the kicker at shorter times.

Scheduling meeting announcement: Jean-Michel Poutissou

JMP announced a scheduling meeting to be held Friday.

NEXT ISAC SCIENCE FORUM: Sept. 1