

Present

ESS: Yongjoong Lee

FRIB: Aida Amroussia, Mikhail Avilov

CERN: Elvis Fornasiere, Claudio Torregrosa, David Horvath

BNL: Leonard Mausner, Nick Simos, Albert Hanson

KEK: Taku Ishida

RAL: Chris Densham

FNAL: Patrick Hurh, Sujit Bidhar, Kavin Ammigan

OXFORD: Slava Kuksenko

LANL: Stuart Maloy

Notes

- CERN confirmed that their heavy capsule will contain 1 layer of Flexible Panasonic Graphite (0.1 mm). In their Si capsule, they will have 1 layer of Sigraflex graphite (2 mm). Proton energy budget will be updated accordingly.
- RAL/KEK considering adding 0.1-0.3 mm of Ti foils to the Ti capsule for miniature fatigue test specimens.
- Energy mask in vacuum degrader will be required to account for non-uniform energy from Be and Heavy capsule (both capsules using graphite as outer filler material). Since specimen areas are different in the two capsules, individual energy masks will likely be applied to both windows of the vacuum degrader. BNL does not see a problem with this, and will design vacuum degrader accordingly based on FLUKA simulations.
- BNL expects to have an updated capsule holder design for our experiment. Leonard/Nick will provide latest design to help determine whether straight edges (for capsule rotational fix) of capsules are compatible with new capsule holder.
- PNNL tensile specimens do not need to have holes in them. Alternate tensile testing with shoulder grips is possible.
- Recent LINAC tests at BNL have demonstrated a peak current of 173 μA , which is higher than previously achieved. Expect lower current for prolonged irradiation during our experiment. Experiment is still on schedule to run in February 2017.
- Heavy/Si capsule update (CERN):
 - Only one heavy capsule will be irradiated (2 weeks). The capsule will then be replaced with another capsule and vacuum degrader with similar dimensions/geometry. Will think about adding other material specimens in heavy capsule slot over the next few days.
 - Capsule will now be Ar filled and laser welded.
 - Still finalizing type and number of specimens in the capsule. Specimen area may be smaller than previously proposed.

- Al capsule update (ESS):
 - Size of thin disc specimen is a concern during disassembly, in terms of handling with telemanipulators and sorting/identifying the discs.
 - Capsule design and analysis progressing well
- Ti capsule update (FRIB)
 - Updated thermal CFX analysis was presented, and still looking into the effect of gas temperature on the overall temperature distribution of the specimens in the capsule.
- Be/C capsule update (FNAL)
 - Capsule content has been finalized
 - Drawings are currently being finalized and specimen drawings sent out for quotes
 - Planning to fabricate spare capsules to test TIG welding procedure over the next few weeks.
- BNL does not have large enough cask to ship entire capsule. So, shipping individual specimens will be more straightforward and likely to cost less.
- Nick encouraged everyone about attending the upcoming BLAIRR (Brookhaven Linear Accelerator Irradiation Facility) workshop at BNL (Sept. 29-30, 2016).
- Chris Densham gave a quick overview of plans to insert thin Ti foils for miniature fatigue testing.
- Nick will need the detailed capsule info (specimen geometry/layering) before he begins the full FLUKA analysis. Please forward all capsule drawings and STEP files to C. Cullen and N. Simos for review as soon as possible.
- Each institution will need to write up their statement of work with BNL and/or PNNL to include
 - PIE work
 - Handling and shipping of specimens
 - Capsule/fillers disposal activities