

Adrian Fabich

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Subject: Two comments

1. The publication by George Greene and Chuck Finfrock on solubility of various alloys in mercury can be viewed at

http://www.hep.princeton.edu/~mcdonald/mumu/target/greene_aiche_49_1066_03.pdf

2. On the mercury jet assembly, both the INNER and OUTER containment vessels must have high strength beam windows on both the ENTRANCE and EXIT ends of the vessels.

I believe that TiAl6V4 is a good and qualified material for this purpose.

Quartz is NOT an appropriate window material for the proton beam.

A small debate remains as to whether the windows in the outer containment vessel should actually be a window pair, with a vacuum between them which is monitored as evidence of window integrity.

Recall that I posted a sketch of how this might work for the ENTRANCE of the outer containment vessel at http://www.hep.princeton.edu/~mcdonald/mumu/target/outer_containment_vessel.jpg

--Kirk