Subject: Chamber testing manual
Posted by Rainer Schicker on Sun, 10 Oct 2004 13:46:21 GMT
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A first draft of TRD chamber testing manual is available
at www.physi.uni-heidelberg.de/~schicker/trdtest/chamb_v1.pdf

Subject: Re: Chamber testing manual
Posted by Harald Appelshaeuser on Mon, 29 Nov 2004 18:47:08 GMT
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Dear Rainer,

the manual looks very good! I have a few questions and comments:

1.1 is the 90Sr source really needed for anything?

2. Chamber leakrate: the maximum allowed leak rate should be specified.

3. Chamber conditioning:
- I think the conditions need to be specified: flow rate, required O2 and H2O purity. Is the full drift voltage applied?
- O2 and H2O content should enter the database.
- can you specify when the conditioning was successful? what is the maximum allowed dark current, at what voltages?

4. Gain uniformity:
- which radiation source should be used (and why)? If X-ray tube: which settings are recommended?
- Conditions: flow rate, O2 and H2O? With or without drift voltage? Important: which anode voltage (sag!)?
- Which level of non-uniformity can be tolerated (standard deviation, maximum deviation)?

5. Gain curve:
- at which flow rate, O2, H2O? Which source? Which drift voltage?
- what is the recommended DeltaV and Vmax?
- should an absolute gain measurement be performed for every chamber (how much effort is this?)? Very important, but also in general: do we insist on a specific gas mixture?

Regards, Harry