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Subject: Test Results Of Chamber L2C0#3

Posted by [Sascha Freuen](#) on Thu, 30 Sep 2004 13:33:11 GMT

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Dear All

As an example, the results of testing chamber l2C0#3 are shown below (leakrate, gain curve, gain uniformity)

#### 1. Leakrate

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The oxygen content within the chamber is measured in intervals of 5 minutes.

The asymptotic value is an indicator of the leakrate.

The flow rate was set at 10 l/h which leads to a time constant of ~4h

Fit :  $f(x)=a+b*\exp(-c*x)$

#### 2. Gain Curve

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The anode voltage is increased in steps of 20 V starting at 1000 V up to 1600 V.

At each step the anode current is recorded.

Fit :  $f(x)=a+b*\exp(c*x)$

#### 3. Gain Uniformity

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There are two different measurement modes:

1. 1D scans with 4mm steps .Here you can clearly see the radiator bars, which absorb very strongly

1.1 4mm steps scan in z-direction at two different phi positions

1.2 4mm steps scan in phi-direction at two different z positions

2. A full 2D scan with 4cm equidistant steps. Here one can only see the radiator bar in the middle very clearly, due to the bigger step size.

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Subject: Re: Test Results Of Chamber L2C0#3

Posted by [Harald Appelshaeuser](#) on Tue, 12 Oct 2004 08:00:51 GMT

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Dear Sascha,

very impressive pictures indeed. Just on question: in all cases the X-ray tube was used for irradiation?

Regards, Harry

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Subject: Re: Test Results Of Chamber L2C0#3

Posted by [Sascha Freuen](#) on Tue, 12 Oct 2004 17:32:26 GMT

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Dear Harry

For the gain curve measurement the Sr90 source was used.

Regards  
Sascha

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