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Report of the WG "The Bq @ the Basic Level"
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The design and the technical drawings of the prototype of the ionisation chamber are ready. The raw materials are purchased, except for the sapphire insulators. There, we are negotiating with some companies on specific issues, such as metal coatings on the insulators for welding / brazing them into the structure. The aim is to have a demountable system in order to adapt/change dimensions.

The sample holder and the sample jig are still under discussion. We are looking for a sample container, which is better, reproducible as the actual SIR ampoules.

Furthermore, IRMM bought an (SI) traceable pressure balance for filling the chamber to reproducible and traceable gas pressure.

NPL is looking into the possibility of traceability for low current measurements, as the aim is to express the SIR-calibration figures of this 'Reher-Woods-Chamber' in SI-traceable units of Bq/A or in more convenient units: MBq/pA – instead of 'equivalent activity of a vulnerable ^{226}Ra source.

We hope to have the prototype ready by the end of 2001.

Important in this project are the guarantee for reproducibility of the chamber within stated tolerances/uncertainties for each part and the development of SOPs for its operation. The latter will be another big effort, when we know more about the behaviour of the chamber.

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