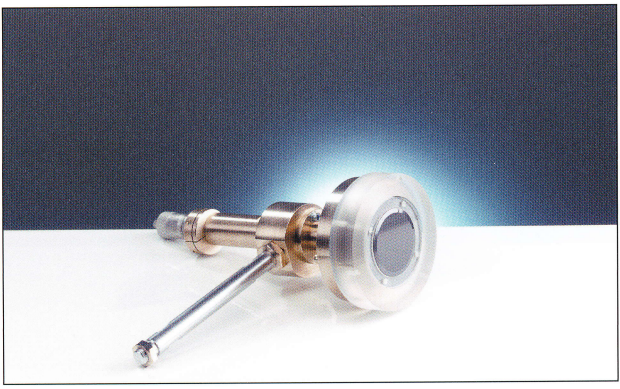
Böhm Extrapolation Chamber



Low energy extrapolation chamber with adjustable volume depth for measurement of absorbed dose in soft tissue

Features

- Measures absolute dose of beta radiation and soft X-rays in soft tissue equivalent material very precisely
- Includes a micrometer screw for the depth adjustment of the measuring volume down to zero
- Suitable for beta calibration at PSDLs and SSDLs

The Böhm extrapolation chamber is a high quality device for absorbed dose measurements of beta and low energy X radiation in certain depths below the surface of the entrance window. Primary standard dosimetry laboratories (PSDL) and secondary standard dosimetry laboratories (SSDL) use it for low energy radiation calibration. The dose is determined from the ionization density in a small air gap, the extrapolation chamber volume, embedded in tissue equivalent material (PMMA). The chamber is supplied with a very thin entrance window of 0.75 mg/cm^2 and a collecting electrode of 30 mm in diameter. By means of the built-in micrometer screw, the collecting electrode surrounded by a guard ring of 15 mm can be moved to adjust the depth of the sensitive volume between 10 mm and 0 mm. The zero point of the chamber depth setting can be obtained by measuring the chamber capaciting charge C versus the chamber depth x and extrapolating C^{-1} towards x=0.
The chamber is equipped with two BNC sockets for signal and polarizing voltage. A connection cable from both BNC sockets to an electrometer with M type connector is available. An electrometer with the input circuits on ground potential is required. The extrapolation chamber comes in a protective storage case.

Ordering Information

T23392 Böhm extrapolation chamber
T23392/U5 Connection cable with M connector for Böhm extrapolation chamber

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