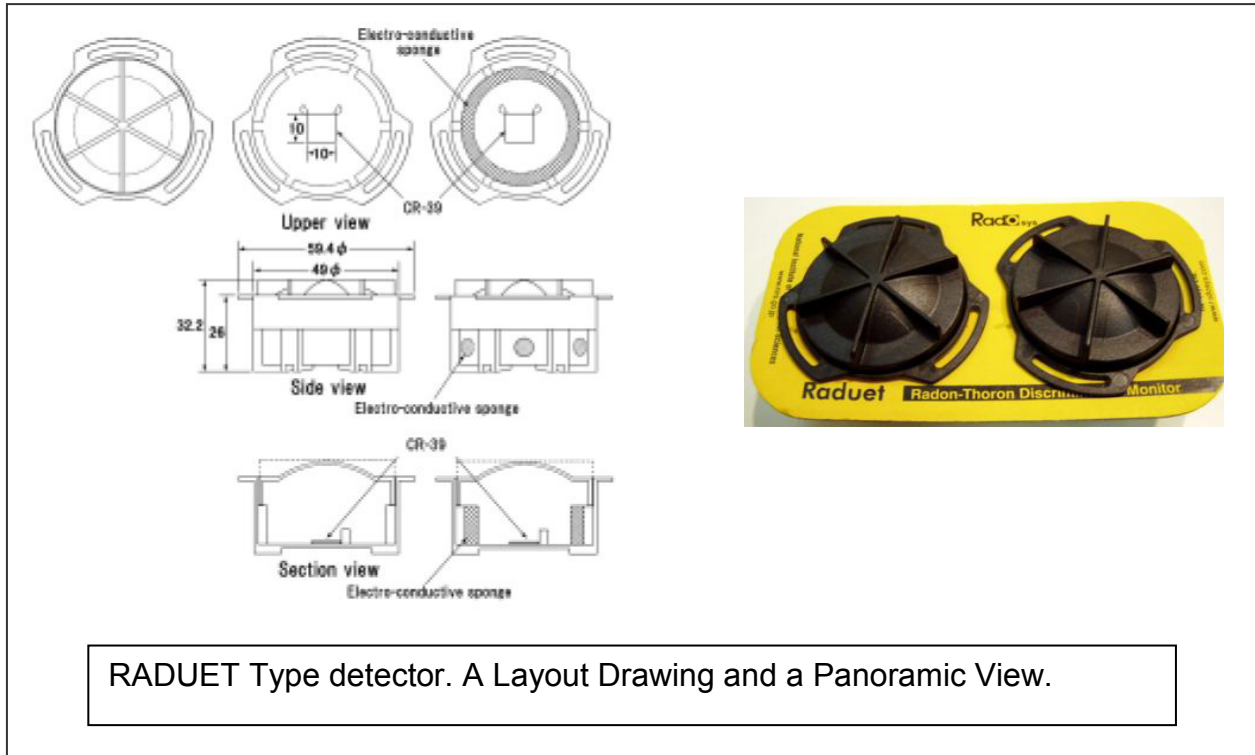


2.3 RADUET TYPE DETECTORS

This is a subtype of the standard RSFS detector.



This detector type is dedicated to combination detection of radon and thoron activity at the same time.

It consists of two detectors – a standard RSF type detector and a modified version, the latter with reduced response time. The main chamber is selective for the radon activity primarily. But the secondary chamber is sensitive for both radon and thoron. A simple linear calculation separates the radon and thoron activity data results.

The RADUET type detector is a result of collaborative work of NIRS, Japan and of Radosys Ltd.

The core reference in this respect is as follows.

“Radon-Thoron Discriminative Monitor” means: A newly designed alpha-track detector for discriminatively determining radon and thoron concentrations. A prototype of the device is based on that in the article entitled A simple passive monitor for integrating measurements of indoor thoron concentrations, published by Weihai Zhuo, Shinji Tokonami, Hidenori Yonehara and Yuji Yamada NIRS in Review of Scientific Instruments, Vol. 73(8):2877-2881; 2002. Other, more comprehensive article from the same authors:

“Up-to-date radon-thoron discriminative detector for a large scale survey” by Shinji Tokonami, Hiroyuki Takahashi, Yosuke Kobayashi, Weihai Zhuo and Erik Hulber in Review of Scientific Instruments, Vol. 76: 3505-3509, 2005.