With regards to an exact determination of the contribution of natural occurring alpha emitting radioisotopes to the yearly exposure of man at workplaces and at home, especially the inhaled Radon-222 progeny and their PAEC (potential alpha energy concentration) are of major importance.

SARAD places the Electronic Personal Radon dosimeter DOSEman PRO disposal for Radon monitoring and dosimetry. To take into account those situations whereas the knowledge of changing equilibrium factors between Radon and its airborne progeny is from extraordinary meaning, we present the

Progeny Air Sampler DOSEman PRO.

Based upon the proven technology of state-of-the-art alphaspectroscopy, the device consist of a Si-semiconductor detector head with millipore filter for excellent spectroscopic resolution of sampled aerosols. Filter can be changed easily by swivelling the detector head.

The shock resistant casing houses an internal pump and NiMH rechargeable batteries for more than 50 hours of stand-alone operation.

With dimensions of a small mobile phone and a weight of about 280 g, it is easy to wear during operational work. Infrared technology provides a comfortable administrator desk for setting measurement parameter as well as the transfer of saved spectra and time distribution data to a PC.

Numerous fields of applications are opened to a new dimension in Radon dosimetry and concentration measurements: recording of time distribution of dose and concentration enables personal dosimetry, low cost Radon monitoring, even in the soil gas or in water sample help to answer frequently asked questions in geology or radioprotection.

SARAD DOSEman is the worlds first commercially available electronic personal dosimeter sensitive to dose contributions which are caused by inhalation of radioactive Radon gas and progeny in the ambient air.
**Principals**


**Device control and data transfer**

- IR interface to PC COM port
- Administrator desk for setting of measurement parameter, WINDOWS user interface
- Upload of identification code together with personal entry record for personal dosimetry
- Download of accumulated dose contributions and time distribution of ROI count rate.

**Data transfer format**

- LC-display: 3 rows (each with 12 characters)
- Operation: one button soft key pad
- Alarm: when exceeding a selectable PAE dose
- Main information stored: ROI area for $^{218}$Po, $^{216}$Po, $^{214}$Po; count sum spectrum, time distribution of ROI area

**Electric / mechanic**

- Size / weight: 138 x 57 x 32 mm, 280 g
- Battery: NiMH, rechargeable; more than 50 h operational time
- Housing: aluminium, shock resistant
- Pump: fixed flowrate 0.14 l min$^{-1}$

**Ambient conditions**

- Temperature: -10°C - +50°C
- Humidity: 0% - 98% (not condensing)

For ordering DOSEman and technical support, use info@sarad.de. Interested parties in the P.R. China, Norway and France may also communicate with our representative in direct. Ask for contact!

SARAD®

Wiesbadener Str. 20, D-01159 Dresden

Phone: +49(0)351/65807-12
Fax: +49(0)351/65807-18
info@sarad.de, www.sarad.de