

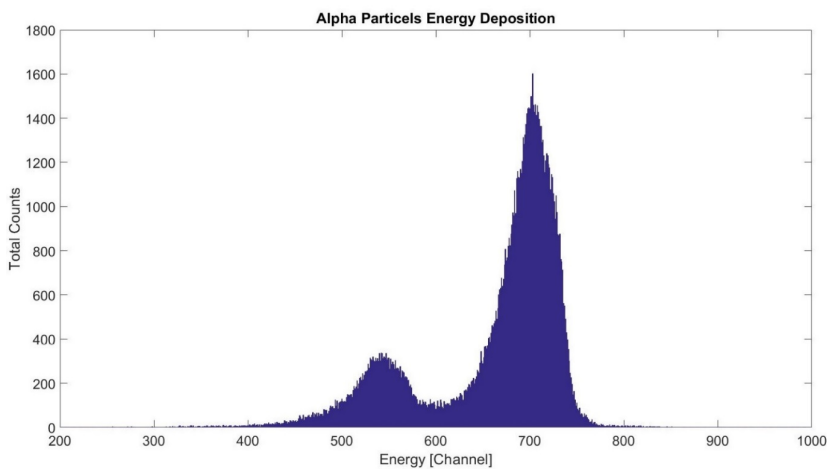
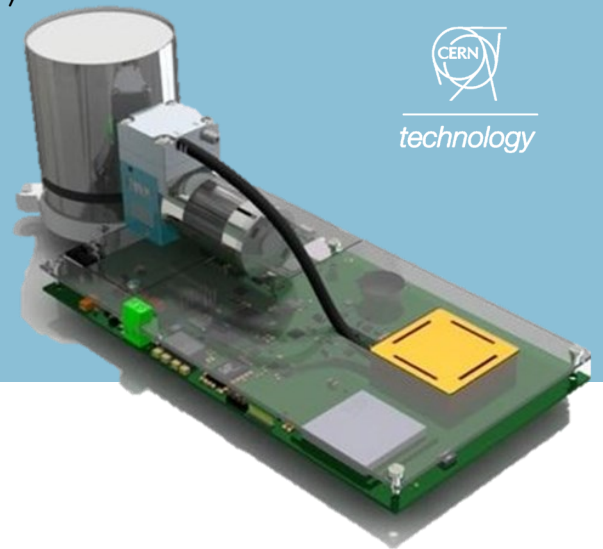
The **RADOM** (RAdon DOse Monitor) is an active dosimeter for the radon progeny. It gives a direct estimate of the radioactive damage delivered to the lung, due to deposition of the radioactive particulate on the epithelial cells of the bronchial airways. The **RADOM** has been designed at CERN by BAQ team and it is based on **CERN technology**. The sensor provides a time-resolved spectrometric analysis of the filtered particles, which makes possible to estimate the effective dose.

TECHNICAL SPECIFICATIONS

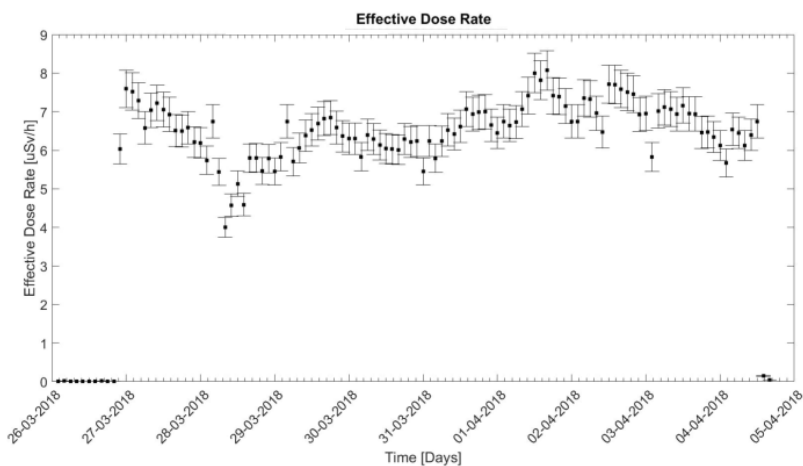
- Response time: 15 minutes
- Measurement of potential alpha energy exposure
- Estimation of the effective dose
- Alpha spectrometry
- Pump flow rate: 3 lpm
- Supply voltage: 12V

USER FRIENDLY

- Wi-Fi / Ethernet
- No software installation needed
- Cloud connection
- Embedded web server
- Powered by Linux



Alpha particles energy distribution from radioactive airborne particles. The peaks on the left and on the right are from ^{218}Po and ^{214}Po , respectively. Both polonium isotopes are radon daughters.



Effective dose rate in the technical room of a water reservoir in Switzerland. The dose estimation is possible thanks to the measurements of the **radon progeny concentration** and of the **potential alpha energy exposure**.