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Development of a networked and modular personal dosimetry system

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We will describe the development of a personal radiation level monitoring system based on an autonomous, advanced dosimeter, which takes advantage of a scintillator-SiPM combination and integrates isotope identification capabilities.

The measurements are time and position stamped, including indoor locations. The device implements Wireless Sensor Networks access in such a way that several networked personal dosimeters can be addressed as mobile sensors providing a high sampling rate over an extended area.

The dosimetry system is modular, including three main elements: the Personal Dosimeters themselves, a Wireless Gateway deployment and a Central System, which is a web-based remote storage, monitoring and management system.

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