



ACTIVE DOSIMETER

Innovative system for direct measurement of ionising and non-ionising doses deposited by a radiation environment

Technological advantages

Reliable measurements

Precise results

Covers a wide range of radiation and energy

Use of robust and reliable detectors

Measurement of non-ionising dose, without knowledge of the radiative constraint

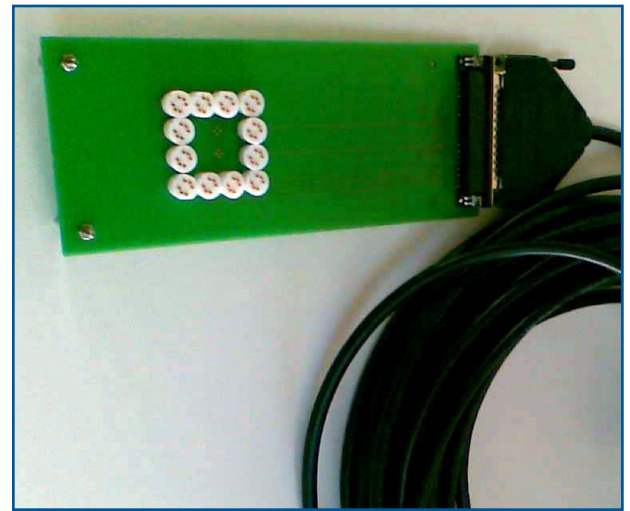
Determination of the fluence spectrum ...

... in an environment mainly irradiated by protons

Summary of the invention

Dosimeter based on the monitoring of a deterioration in performance of opto-electronic components such as optocouplers, whose characteristics are known.

The use of non-linear modelling of the deterioration of mixed detectors with different characteristics makes it possible to obtain a reliable measurement of ionising and non-ionising doses



Irradiation board and dosimeter cable

Potential applications

Dose measurement

Control of component hardening

Monitoring of dose received by onboard equipment

Surveillance of nuclear power plant tanks

Commercial advantages

An inexpensive solution

Use of off-the-shelf components

An optimised sensor

Small size, low weight, low power consumption.

Measurement processing can be done at a distance.

TRL : 3

Patented invention available under licence