LOW ACTIVITY RADIATION DETECTOR

CUTTING EDGE TECHNOLOGY

New large area detector of low-activity radiation expands the application possibilities, especially in the case of lower quality of the semiconductor substrate. At the same time, the construction allows a more accurate measurement result, while also reducing the amount of control electronics. Significant are financial savings during the manufacture and also during the use.

COMPETITIVE ADVANTAGE

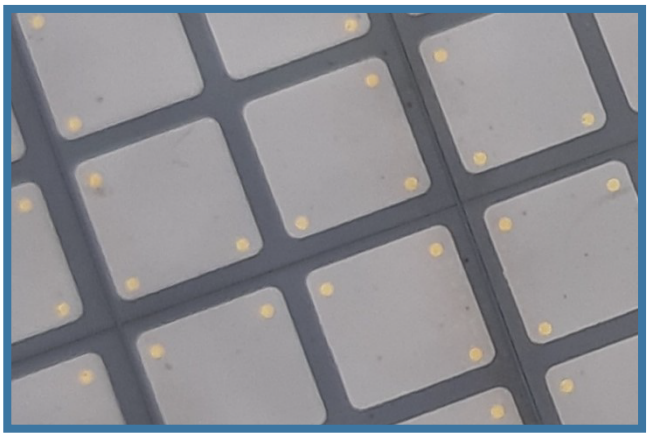
- possibility to use lower quality semiconductor materials (CdTe, GaAs, CdZnTe, SiC, InP, etc.),
- more precise measurement result (unaffected by defective areas),
- simpler construction,
- higher production yield,
- the result is obtained directly, without the need to correct the measured values,
- significant financial savings during operation,
- reduction of demands on the amount of control electronics for reading the detector,
- possibility to connect to only one reading unit (instead of a large number),
- each produced large area detector is functional, only the total detection area is reduced (approx. by 10 – 30%).

INDUSTRIAL APPLICABILITY

The large area radiation detector can be used in nuclear energetics (spectrometry, dosimetry) or wherever there are sources of ionizing radiation of natural or artificial nature. The large area detector can also be used in space applications.

STAGE OF DEVELOPMENT & PROTECTION

- **prototype** ready for demonstration,
- **TRL 5** - technology validated in relevant envi-ronment,
- **priority patent application** (WO 2022/211744).



TOP TEAM OF INVENTORS

The inventors are internationally recognized experts in the field of sensor structures research and development of semiconductor detectors in demanding conditions (radiation resistant, for high energy physics, etc.) and in the field of advanced X-ray technologies: Dr. Bohumír Zaťko and Dr. František Dubecký.

WE ARE LOOKING FOR AN INDUSTRIAL PARTNER FOR LICENSING/SELLING THE TECHNOLOGY.

For more information please contact:

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