

Hand-Held Gamma Detector Based on High-Pressure Xenon Gas

Kutny V.E., Rybka A.V., Pudov A.O.

*National Science Center "Kharkov Institute Physics and Technology",
Kharkiv, Ukraine*

Gamma-radiation detectors based on high-purity Xenon (HPXe) gas at high pressure have very promising potential applications, including security applications (detecting radioactive materials at ports of entry), as well as fuel cell lifecycle monitoring. HPXe detectors have wide operation temperature range, do not require cryogenic cooling, can have large sensitive volume, and yet have excellent detecting qualities. The goal of this presentation is to report on the progress of the project work aimed at developing a hand-held HPXe detector with optimized parameters.