Characterisation of an ultra low-background point contact HPGe well-detector for an underground laboratory

Since a few years there are well-type HPGe-detectors with a small, point-like, anode contacts available commercially. This paper describes the characterisation of the first ultra low-background, so-called, SAGe™ well detector with regards to resolution and background performance. Inside a passive lead/copper shield in the underground laboratory HADES a background count rate of $690 \pm 6 \text{d}^{-1}$ ($268 \pm 3 \text{d}^{-1}$ per kg Ge) was recorded 19 months after taking it underground.

General information

State: Published
Organisations: Center for Nuclear Technologies, The Hevesy Laboratory, Radioecology and Tracer Studies, European Commission Joint Research Centre Institute
Contributors: Hult, M., Marissens, G., Stroh, H., Lutter, G., Tzika, F., Markovic, N.
Pages: 446-449
Publication date: 2018
Peer-reviewed: Yes

Publication information

Journal: Applied Radiation and Isotopes
Volume: 134
ISSN (Print): 0969-8043
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Scopus rating (2017): CiteScore 1.15 SJR 0.528 SNIP 0.973
Web of Science (2017): Impact factor 1.123
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 1.17 SJR 0.537 SNIP 1.027
Web of Science (2016): Impact factor 1.128
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): CiteScore 1.15 SJR 0.547 SNIP 0.999
Web of Science (2015): Impact factor 1.136
BFI (2014): BFI-level 1
Scopus rating (2014): CiteScore 1.27 SJR 0.574 SNIP 1.203
Web of Science (2014): Impact factor 1.231
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): CiteScore 1.24 SJR 0.526 SNIP 0.953
Web of Science (2013): Impact factor 1.056
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): CiteScore 1.29 SJR 0.671 SNIP 1.151
Web of Science (2012): Impact factor 1.179
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): CiteScore 1.21 SJR 0.644 SNIP 1.137
Web of Science (2011): Impact factor 1.172
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.715 SNIP 1.098
Web of Science (2010): Impact factor 0.999