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NEWAGE: direction-sensitive direct dark matter search

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The sensitivity of the direct dark matter search is being improved by various energy-sensitive experiments such as XENONnT, LZ, Panda-X and so on. On the other hand, in order to reveal properties of the dark matter particle after its discovery or to explore beyond the neutrino floor region, direction-sensitive dark matter search is designed and taken place recently. NEWAGE the direction-sensitive WIMP search experiment using three-dimensional tracking gaseous TPC detector placed in an underground laboratory at Kamioka Observatory. Recently the sensitivity is improved by implementing new ambient gamma-ray rejection cut and a head-tail determination analysis. Furthermore, we are commissioning the larger scale gaseous TPC in parallel with the development of low RI emission micro pattern gas detector. This presentation reports the status and the future prospects of our underground dark matter search experiment.

Submitted on behalf of a Collaboration?

Yes

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