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Abstract for an Invited Paper for the HAW14 Meeting of the American Physical Society

Overview of detector technologies in low-radioactivity-background experiments¹

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It will discuss the current status of low-radioactivity-background detectors, in terms of low background counting techniques, such as alpha/beta/gamma spectroscopy, Rn emanation assay, and mass spectrometry and also, in terms of background reduction techniques to realize the detectors to catch rare signals. These techniques will be common issues, especially for experiments on solar neutrinos, dark matter, double beta decay and long half-life phenomena. Thus, several international cooperation/collaboration to share its knowledge and to create the database is in progress.

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