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TRD based on the usage of thin scintillators.

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Detector based on the usage of thin scintillators is proposed for particle identification by TRD. Such type of TRD may be especially interesting for space experiments because of no gas. The detector is based on the thin transparent films with incorporated micro-granules of LuBO3:Ce scintillator. Scintillation signal produced by absorbed gammas is registered by vacuum PMT or by SiPM connected to WLS fibers. Results of measurements with different samples of such films are presented. The clear signals from Fe55 (5 keV) and Am241 (16 keV) gamma sources were observed. The detailed Monte Carlo simulations of such kind of TRD are also presented.

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