

SPECTROMETER FOR SLOW SCINTILLATION DETECTORS WITH PULSE SHAPE DIGITIZING

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PS⁴TD data acquisition system for nuclear physical low background detectors on slow scintillators is described. The system is based on the ADC125AS3 14-bit 100 MHz digitizer board operating on the PCI bus of IBM compatible personal computer. The software of the system is realized under Windows XP and allows to process scintillation signals online, to build and to analyze energy spectra. The data acquisition system improves energy resolution of scintillation spectra as compared to conventional spectrometers and is significantly less expensive.

Keywords: tungstates, molybdates, low-counting nuclear spectrometry, digital signal processing.