

## PXI-COMPATIBLE PREAMPLIFIER AND AMPLIFIER FOR PROPORTIONAL GAS COUNTERS

*Monday 30 October 2023 21:45 (15 minutes)*

PXI-compatible card combining amplifier and preamplifier for proportional gas counters is presented. This PXI-compatible amplifier/preamplifier is developed for purpose of usage with proportional gas counter sensitive to 14.4 keV and PXI-based Mössbauer spectrometers developed on Palacký University in Olomouc. The card is based on Amptek A225 and Amptek A206 integrated circuits. It allows miniaturization of the spectrometric system, as the amplifier and preamplifier together are in form of one PXI card and thus built in the compact PXI-chassis. There is also no need for the additional power supply, as the developed card is powered by PXI connector from the backpane of PXI chassis. This study will deal with comparison of PXI-compatible amplifier/preamplifier board, amplifier/preamplifier board using same components but in form of stand-alone box and powered by lab power supply and other commercially available amplifiers and preamplifiers in the focus on the signal-to-noise ratio, MCA spectrum and quality and effect of Mössbauer spectrum.

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**Session Classification:** In-person poster session & welcome drinks

**Track Classification:** Experimental Nuclear Physics