APPLICATION OF ARTIFICIAL NEURAL NETWORKS FOR PULSE SHAPE ANALYSIS IN $CdWO_4$ SCINTILLATORS

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Artifical neural networks was applied to pulse shape analysis in cadmium tungstate scintillators and comparing them with optimal digital filter method was done. For the first time the distinct (≈ 100 %) discrimination of α and γ events has been achieved. An improvement of pulse shape analysis in the ^{116}Cd 2β decay experiment by applying both methods together is discussed.