

MEASUREMENT OF THE γ -QUANTA EMISSION CROSS SECTIONS IN REACTIONS $(n, X\gamma)$ FOR ^{28}Si AND ^{16}O USING THE METHOD OF TAGGED NEUTRONS WITH $E_n = 14.1 \text{ MeV}$

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In the framework of the TANGRA project, an experimental setup was created for the measurement of cross sections of γ -quanta emissions in $(n, X\gamma)$ -type reactions during interactions of neutrons with an energy of 14.1 MeV with nuclei. The tagged neutron method was implemented for the effective separation of background events and monitoring of the neutron flux. The results for the SiO_2 sample (natural mixture) are presented.

В рамках проекта TANGRA создана экспериментальная установка для измерения сечений испускания γ -квантов в реакциях типа $(n, X\gamma)$ при взаимодействии нейтронов с энергией 14,1 МэВ с ядрами. Реализован метод меченых нейтронов для эффективного разделения фоновых событий и мониторинга потока нейтронов. Представлены результаты для образца SiO_2 (природная смесь).

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