

**О. М. Поворозник\*, О. К. Горпинич**

*Институт ядерных исследований НАН Украины, Київ, Україна*

\*Відповідальний автор: orestpov@kinr.kiev.ua

### **ВЗАЄМОДІЯ $\alpha + (^2\text{H}, ^3\text{H}, ^3\text{He})$ ТА НЕЗВ'ЯЗАНІ СТАНИ ЯДЕР З $A = 5$**

Наведено результати експериментального вивчення низькоенергетичних незв'язаних першого збудженого та основного рівнів ядер  $^5\text{He}$  та  $^5\text{Li}$ , що базуються на аналізі інклюзивних та двовимірних збігових спектрів, отриманих унаслідок  $\alpha + (^2\text{H}, ^3\text{H}, ^3\text{He})$  взаємодії.

*Ключові слова:* незв'язаний стан,  $^5\text{He}$ ,  $^5\text{Li}$ , інклюзивний спектр, кінематично повний кореляційний експеримент, спектр збігів.

**О. М. Поворозник\*, О. К. Горпинич**

*Институт ядерных исследований НАН Украины, Киев, Украина*

\*Ответственный автор: orestpov@kinr.kiev.ua

### **ВЗАИМОДЕЙСТВИЕ $\alpha + (^2\text{H}, ^3\text{H}, ^3\text{He})$ И НЕСВЯЗАННЫЕ СОСТОЯНИЯ ЯДЕР С $A = 5$**

Приведены результаты экспериментального изучения низкоэнергетических несвязанных первого возбужденного и основного уровней ядер  $^5\text{He}$  и  $^5\text{Li}$ , основанные на анализе инклюзивных и двумерных спектров совпадений, полученных в результате  $\alpha + (^2\text{H}, ^3\text{H}, ^3\text{He})$  взаимодействия.

*Ключевые слова:* несвязанное состояние,  $^5\text{He}$ ,  $^5\text{Li}$ , инклюзивный спектр, кинематически полный корреляционный эксперимент, спектр совпадений.

**О. М. Povoroznyk\*, О. К. Gorpynych**

*Institute for Nuclear Research, National Academy of Sciences of Ukraine, Kyiv, Ukraine*

\*Corresponding author: orestpov@kinr.kiev.ua

### **$\alpha + (^2\text{H}, ^3\text{H}, ^3\text{He})$ INTERACTION AND UNBOUND STATES OF NUCLEI WITH $A = 5$**

Results of the experimental study of low-energy unbound first excited and ground states of  $^5\text{He}$  and  $^5\text{Li}$  nuclei, based on the analysis of inclusive and two dimensional coincidences spectra obtained as a result of the interaction of  $\alpha + (^2\text{H}, ^3\text{H}, ^3\text{He})$ , are presented.

*Keywords:* unbound state,  $^5\text{He}$ ,  $^5\text{Li}$ , inclusive spectrum, kinematically complete correlation experiment, spectrum of coincidences.

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