Contribution ID: **28** Type: **Oral presentation**

# Details of (α,n) experiments aiming at the investigation of the Atomki-V2 potential

*Thursday 17 October 2024 11:10 (10 minutes)*

The heavier p-isotopes can be produced through the $\gamma$-process, which involves a complicated reaction network. In this nucleosynthesis process ($\gamma$,$\alpha$) reactions play a key role. To calculate such a reaction network, many input parameters are essential. One of these is the $\alpha$-nucleus optical model potential (AOMP), which describes the interaction between the $\alpha$ particle and the nucleus. This potential can be studied with ($\alpha$,n) reactions at low energies. At the HUN-REN Atomki several ($\alpha$,n) experiments [1] were carried out in the last few years. In this short talk, the details of the recently published [2] Te($\alpha$,n) experiments will be presented. Further details of the Atomki-V2 AOMP will be given in the talk of P. Mohr.
[1] Gy. Gyurky et al., Phys. Rev. C 107, 025803 (2023)
[2] Zs. Matyus et al., Phys. Rev. C 109, 065806 (2024)

## Length of presentation requested

Oral presentation: 8 min + 2 min questions (Poster-type talk)

## Please select a keyword related to your abstract

Nuclear Theory and Experiments

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**Session Classification:** Morning session