

## Search for the eta-mesic helium in proton-deuteron and deuteron-deuteron reactions

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The existence of eta-mesic nuclei in which the eta meson is bound in a nucleus by means of the strong interaction was postulated already in 1986 but it has not been yet confirmed experimentally. The discovery of this new kind of an exotic nuclear matter would be very important as it might allow for a better understanding of the h meson structure and its interaction with nucleons. The search for eta-mesic helium is carried out with high statistics and high acceptance with the WASA detector, installed at the COSY accelerator in the Research Center Juelich. The search is conducted via the measurement of the excitation function for selected decay channels of the  $4\text{He-h}$  and  $3\text{He-h}$  systems. The talk will include description of the experimental method used at WASA and the status of the data analysis.

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