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Search for the 4He - η bound state with WASA-at-COSY

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We conduct a search for the 4He - η bound state with WASA-at-COSY facility, via a measurement of the excitation functions for the $dd \rightarrow {}^3\text{He} p \pi^-$ reaction, where the outgoing p - π^- pairs originate from the conversion of the η meson on a nucleon inside the He nucleus. In June, 2008 first measurements of the excitation functions for the $dd \rightarrow {}^3\text{He} p \pi^-$ reaction were performed. In the experiment we used a slowly ramped COSY deuteron beam, scanning the range of momenta corresponding to the variation of the excess energy for the 4He - η system from - 60 MeV to 20 MeV.

The final results from the analysis will be presented.

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Classifica Sessioni: Hadron Physics II

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