

Studies of mesons production and decays in $pd \rightarrow 3HeX$ with WASA-at-COSY*

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The data available for η production in $pd \rightarrow 3He\eta$ are rich mostly for low excess energies (i.e. up to about 20 MeV), the higher energy data are of major interest [1]. Nearly no informations are available for the corresponding η' [2] and ω [3] cases.

The $pd \rightarrow 3HeX$ reaction gives a possibility of clean measurement of a number of important decays of the mesons due to the WASA-at-COSY capability of detecting multiparticle coincidences of charged and neutral particles in the final state.

The current status of studies of the meson production and decays in $pd \rightarrow 3HeX$ reaction will be presented.

[1] T. Rausmann *et al.*, Phys. Rev. C **80**, 017001 (2009).

[2] L. A. Kondratyuk and Y. N. Uzikov, Phys. At. Nucl. **60**, **N3**, 468-477 (1997),
[arXiv: nucl-th/9510010].

[3] K. Schoenning *et al.*, Phys. Rev. C **79**, 044002 (2009).

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