

# Near threshold $\eta$ -meson production in $dp$ collisions

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Results of recent measurements studying the near threshold  $\eta$  meson production via the two  $dp \rightarrow dp\eta$  and  $dp \rightarrow {}^3\text{He}\eta$  reactions will be presented [1,2]. The experiments have been performed at the COSY-11 facility. Data were taken for four values of deuteron beam momenta within the range from 3.165 GeV/c to 3.204 GeV/c corresponding to an excess energy window from 5.7 MeV to 15.1 MeV, in the  ${}^3\text{He}\eta$  system. The extracted total production cross sections will be compared to predictions of the two step model involving an intermediate pion [3]. The data confirm a strong effect of interaction between the  $\eta$  meson and the three nucleons in the final state.

[1] J. Smyrski et al., COSY Proposal-100 (2002).

[2] C. Piskor-Ignatowicz, Ph.D. thesis, Jagiellonian University, Cracow, in preparation.

[3] C. Wilkin, U. Tengblad, G. Fäldt, Acta Phys. Slovaca (2006), in print.

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