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Production of N* resonances with hidden strangeness in various reactions

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The three narrow P_c states decaying to J/ψp observed by the LHCb experiment are consistent with earlier predictions for one $\bar{D}\Sigma_c$ and two $\bar{D}^*\Sigma_c$ bound states. Their strange partners are expected to exist. Here we present evidence for the production of these N^* resonances with hidden strangeness in various reactions, such as γp → ϕp, γp → KΛ, $\gamma p \to K\Sigma$, γp → KΣ*, γp → KΣ, pp → pKΛ, $J/\psi \to K_S\bar{n}\Lambda$+c.c., $\chi_{c0} \to \bar{p}K^{*+}\Lambda$+c.c. , etc., which give clear supports of the existence of the strange molecular partners of P_c states. More production processes of these N^* resonances with hidden strangeness are proposed to further test the hadronic molecular picture.

Parallel Session

Hadron Spectroscopy

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