

Pion production off the deuteron with real photons including polarization observables

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Abstract

Recent results are presented for quasifree pion photoproduction off the deuteron in the energy region from threshold up to the $\Delta(1232)$ - resonance with inclusion of all leading πNN effects. Final - state interaction effects are investigated and their role in polarized and unpolarized observables are found to be significant. The sensitivity of results to the elementary $N(\gamma,\pi)N$ operator is discussed and considerable dependence is found. We expect that these results may be useful to interpret the recent measurements from LEGS, A2 and GDH Collaborations.