The eta meson photoproduction on proton

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We have performed the tree-level calculations of the eta meson photoproduction on proton for laboratory photon energies between 714 and 1500 MeV. The resonances N(1535), N(1710), N(1650), N(1440) and N(1520) were assumed. The form factors were introduced in the hadronic vertices to involve the structure of hadrons. The influence of various form factor recipes was discussed. In order to keep gauge invariance, the appropriate contact term was introduced. The parameters of our model (coupling constants, cutoffs) were fitted to recent experimental data of the cross sections and some polarization observables.

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