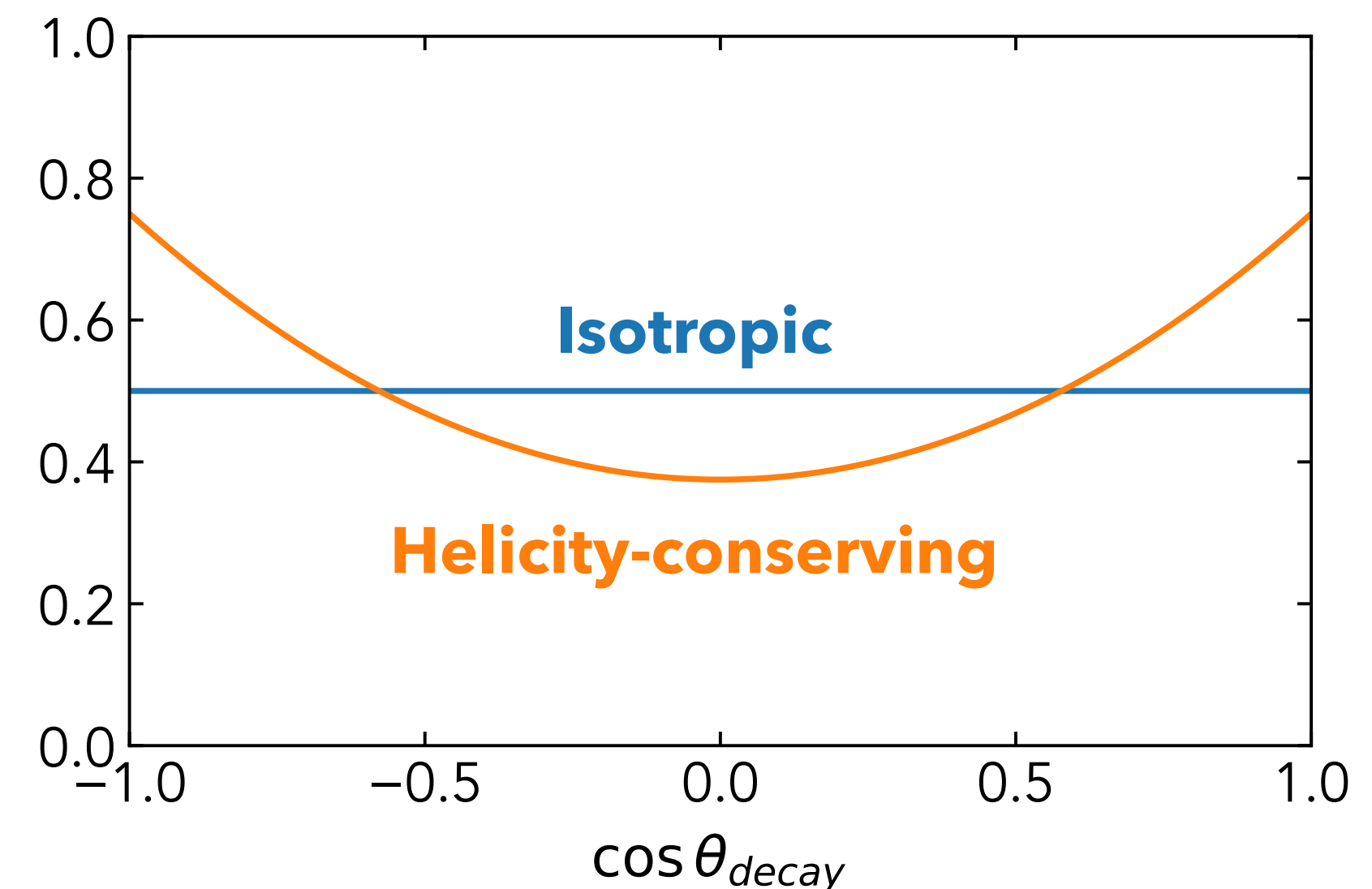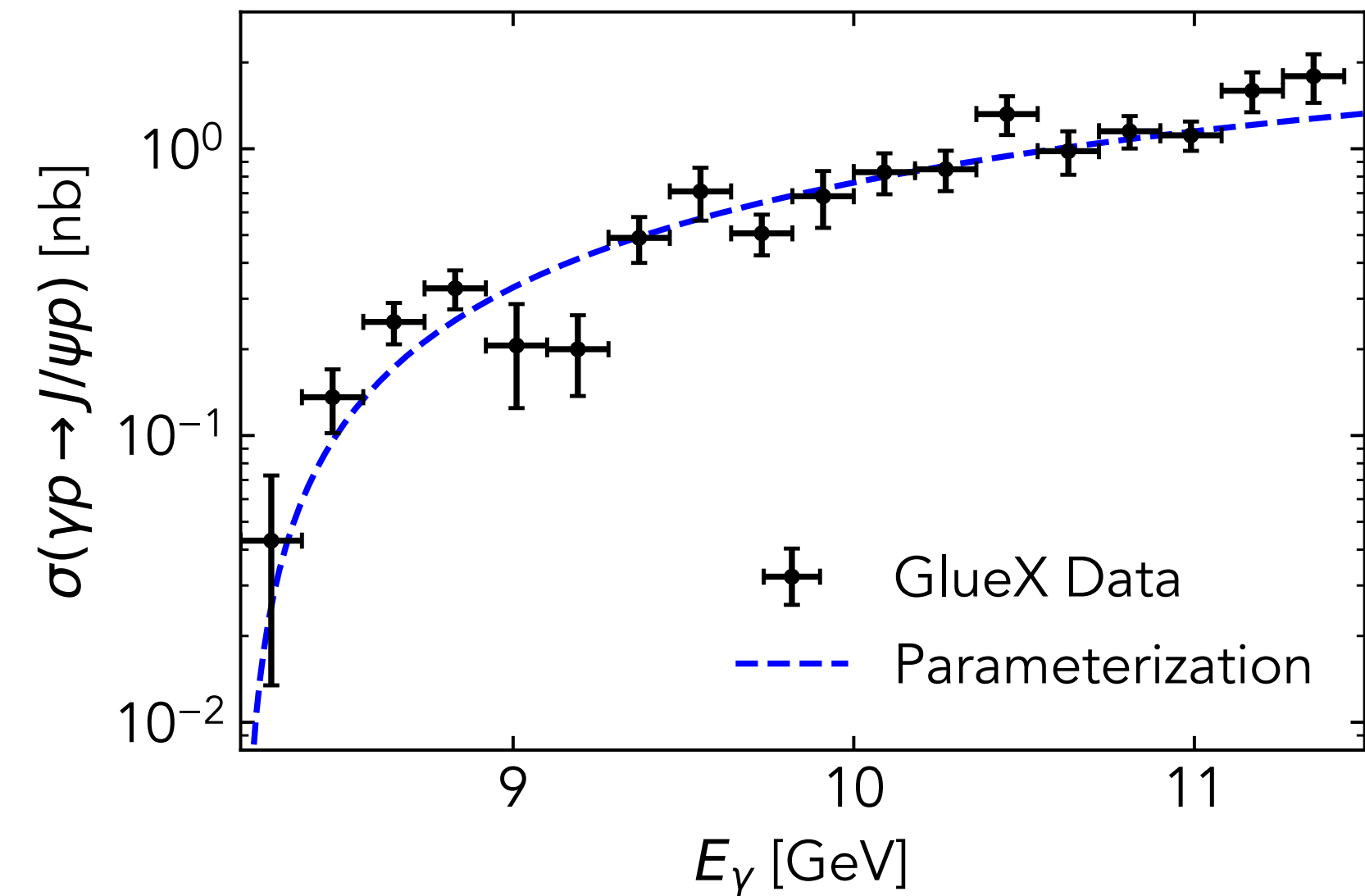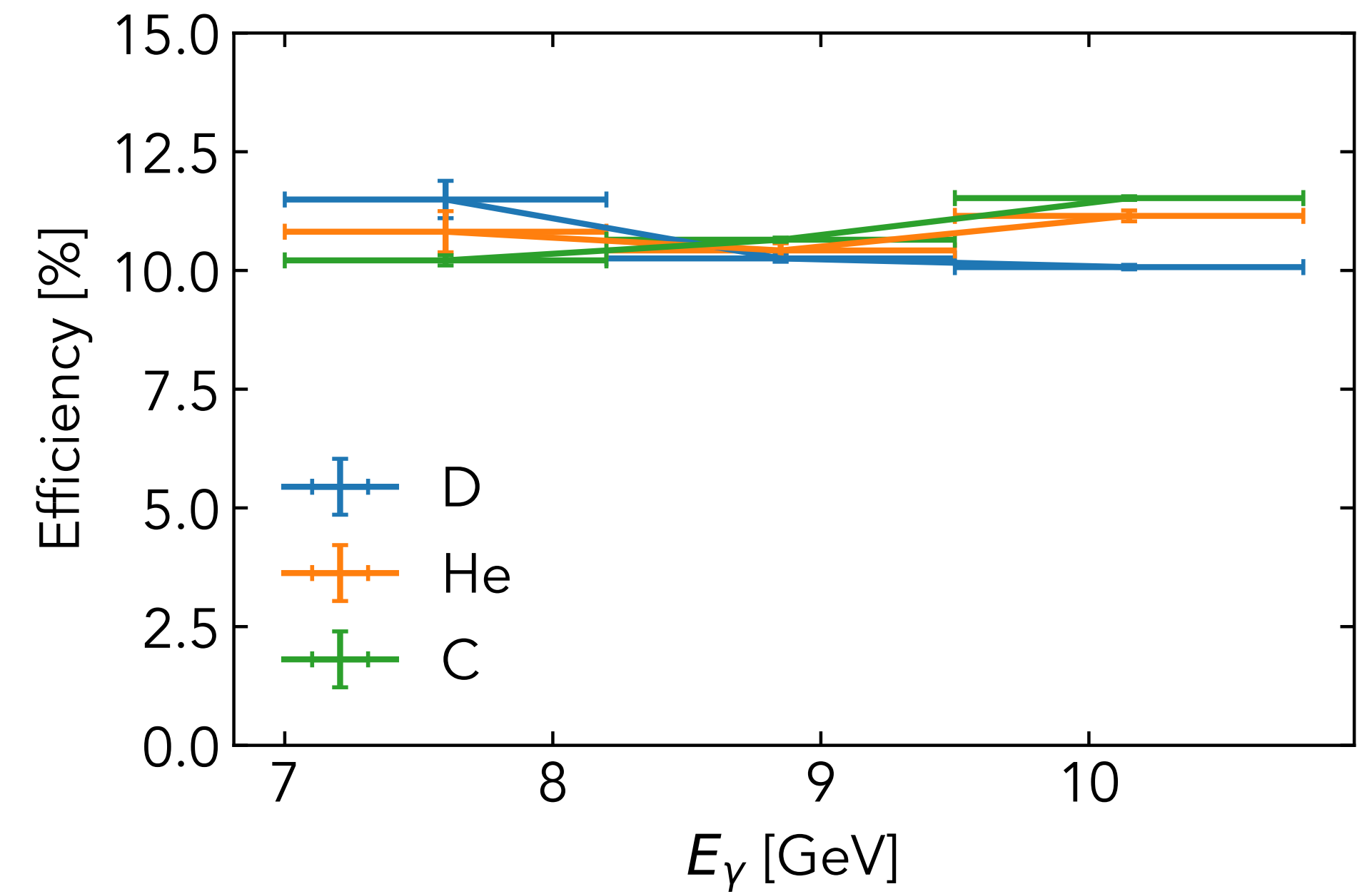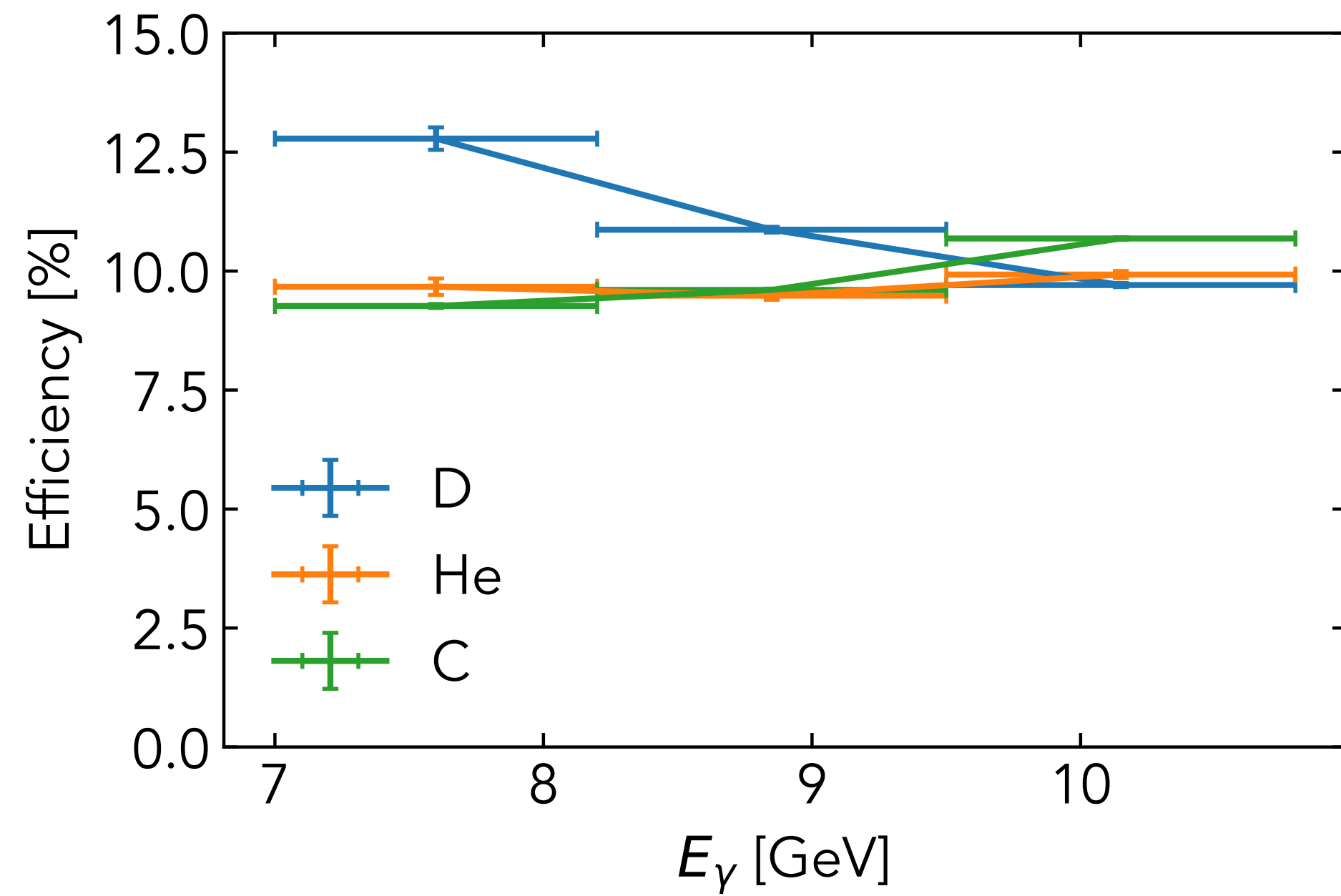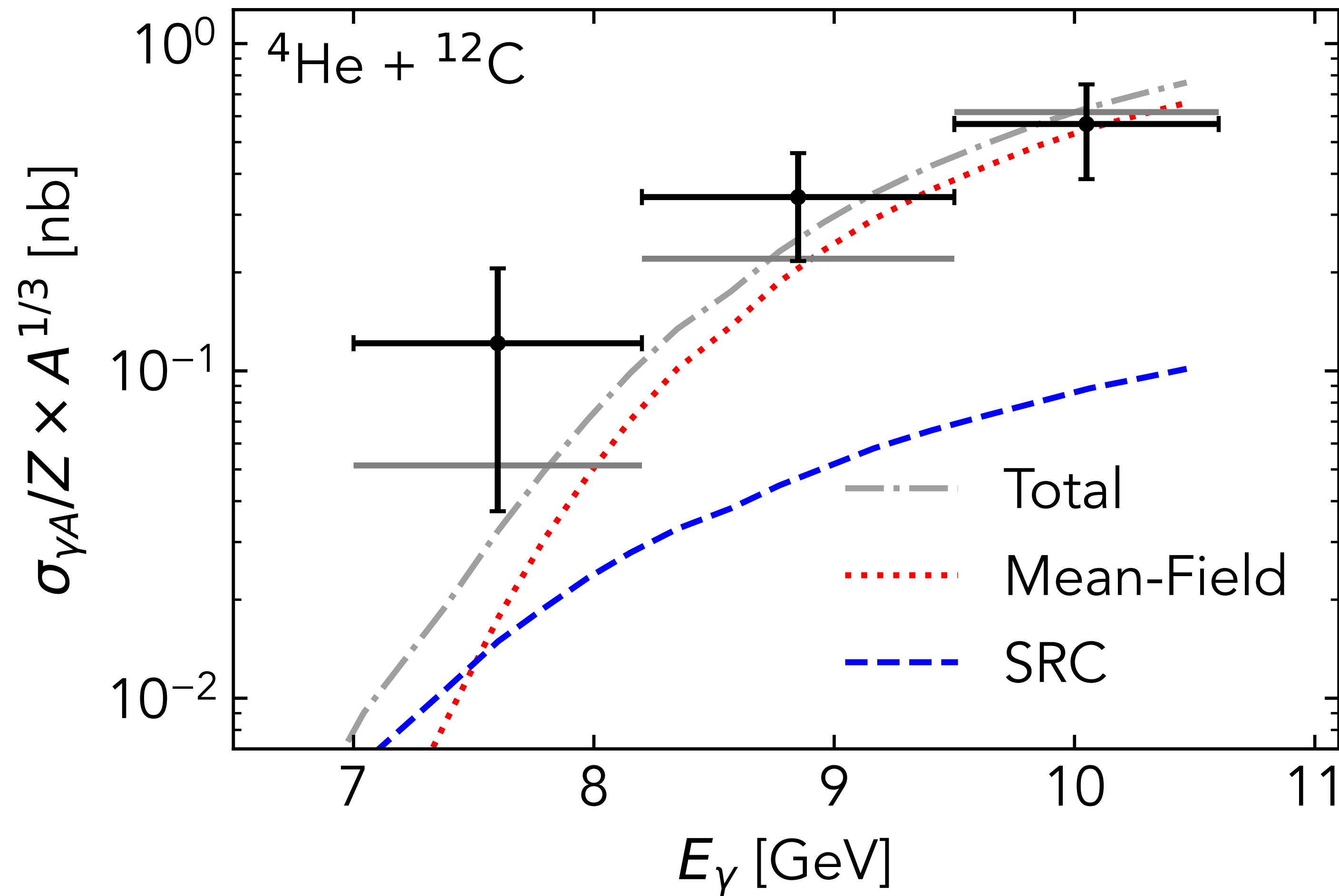# Updated Monte-Carlo for 3 effects

- New cross section parameterization fit to 2023 GlueX data

  - Includes more accurate t-dependence, which was incorrect in calculations

- Added in random-trigger event-mixing to account for pileup impact on signal events

- Accounted for non-isotropic decay of J/ψ

  - Previous GlueX studies found $\rho^0_{00} \approx 0$, meaning helicity largely conserved
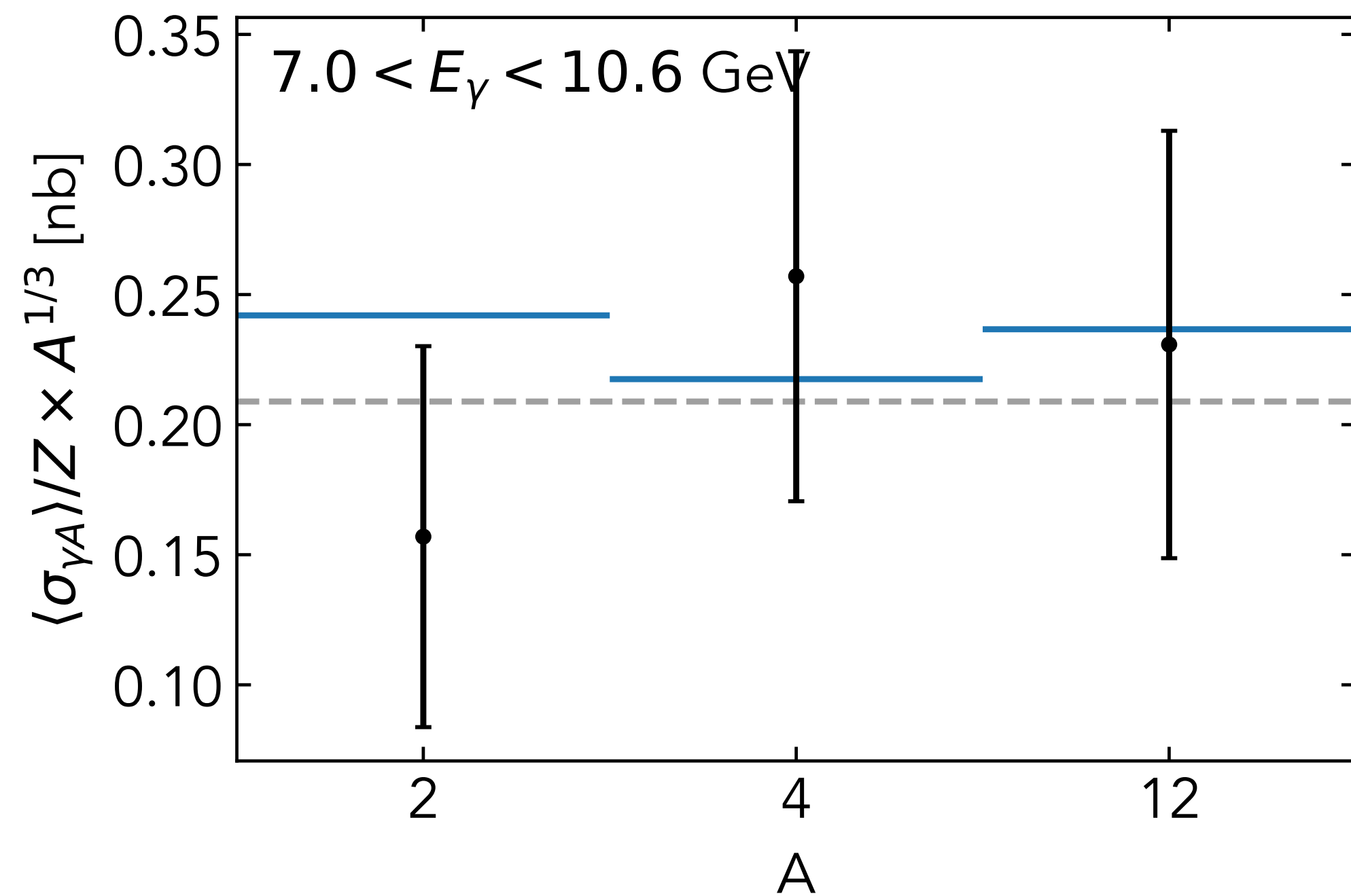
Impact of changes on efficiency is small

Can examine helium/carbon averaged cross section as a function of energy

Can also look at energy-averaged cross sections across nuclei