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S-wave quarkonia production by $\gamma^*\gamma$ in e-A collisions

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We investigate the exclusive production of the pseudoscalar meson η_c in electron-ion collisions through $\gamma^*\gamma$ interactions. At high energies, this process is dominated by photon-photon fusion, enhanced by the strong nuclear photon flux. We present cross-section predictions for future facilities (EIC, EicC, LHeC), focusing on rapidity, transverse momentum, and photon virtuality distributions. The analysis explores different models for the η_c wave function, showing how such measurements can constrain the meson's transition form factor and offer new insights into its internal structure.

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