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The Double Compton process in a Strongly Magnetized Plasma,

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The process of double Compton scattering, $e\gamma \rightarrow e\gamma\gamma$, in a strongly magnetized charge-asymmetric cold electron plasma is considered. The amplitude of the process is obtained for case when the electrons are at an arbitrary Landau level. The expressions for the amplitude of the process in the magnetar case have been obtained. The double Compton scattering in such a plasma is shown to be an efficient process for the production of polarized photons.

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