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Photon damping in a strongly magnetized plasma

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The process of propagation of an electromagnetic wave in a strongly magnetized, charge-symmetric plasma is investigated. Taking into account the change in the dispersion properties of a photon in a magnetic field and plasma, it was found that, as well as the case of a pure magnetic field, the process of photon damping in a magnetized plasma has a nonexponential character. It is shown that the effective absorption width of a photon is significantly smaller in comparison with the results known in the literature.

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