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## Long-lived free induction decay signal in CsMnF3 single crystal

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### Abstract

Elementary excitations in antiferromagnets are magnons, and these quasiparticles with integer spin are governed by Bose statistics. In certain conditions their density can be controlled by applied radiofrequency pulse leading to the formation of Bose-Einstein condensation (BEC). We report the investigations of free induction decay signal duration in CsMnF3 under different conditions and discuss it in the framework of the magnon BEC. The observed results in CsMnF3 and previous investigations in superfluid  $^3\text{He-A}$  are compared. © Kazan Federal University (KFU).

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### Keywords

Antiferromagnets, Bose-Einstein condensation, Magnons, Nuclear magnetic resonance