

Abstract Submitted
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Ionization of atoms by axion and search for dark matter
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MAXIM POSPELOV, University of Victoria — Cross section of the ionization
of Ar, Ge and Xe by a weakly interacting pseudoscalar particle such as axion is calculated in the relativistic Hartree-Fock approximation for the particle mass range from 10 to 50 keV where it can be considered as a candidate for dark matter. An analytical formula is presented which fits numerical calculations with about 10% accuracy and can be used for any atom. The results are to be used in laboratory search for dark matter.

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