

Energy shift experiment in photonic crystal medium

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Abstract

© Published under licence by IOP Publishing Ltd. We propose experimental confirmation of the new effect of the electron mass changes in photonic crystal medium, which was recently predicted. The method consists in measuring the Lamb shift in hydrogen atoms placed in the medium of photonic crystal. We discuss the experimental scheme based on the Lamb and Retherford experiment as well as the requirements for the samples of photonic crystals.

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