

Search for Hidden-Photon Dark Matter by Means of a Multi-Cathode Counter.

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The results of the search of hidden-photon dark matter by means of a multi-cathode counter are presented. The technique is based on counting of single electrons emitted from outer cathode as a result of the conversion of hidden-photons. The apparatus and the calibration of the counter by ultraviolet lamp are described and the data processing is outlined in details. It is shown that this technique attains a maximum sensitivity in the energy range of Vacuum Ultraviolet. The results obtained from measurements during 78 days by counter with an aluminum outer cathode are presented. The next steps to lower the limits obtained by this technique are discussed.

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