

## Searching for new light charged particles in photoproduction

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Motivated by recent V.A. Nikitin's reports on observation of  $9\text{-MeV}/c^2$  charged particles with a 2 meter JINR propane bubble chamber we perform an experiment at the LPI electron synchrotron "Pakhra" with the aim to detect such particles in the Bethe-Heitler process. Theoretical limits for masses of new light charged particles of spin 0, 1/2 and 1 arising from precise data on the muon anomalous magnetic moment are recalculated and updated. A geometry of the photoproduction experiment is proposed that optimizes sigma-to-noise ratio. Preliminary results of the experiment are exposed.

**Primary author(s)** : L'VOV, Anatoly (P.N. Lebedev Physical Institute)

**Presenter(s)** : L'VOV, Anatoly (P.N. Lebedev Physical Institute)

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