Development of High-Resolution Superconducting Tunnel Junction EUV Detector for Global Imaging of Magnetosphere (I)

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We are developing Superconducting tunnel junction (STJ) EUV detectors for Global imaging of magnetosphere. STJ can be used as high-resolution and high-countrate photon detector. STJ consist of two superconducting electrodes separated by a thin insulator. STJ are based on the measurement of the excess quasipaticle tunneling current caused by the absorption of a photon in the junction electrodes. We present experimental results.