Abstract Submitted
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Photon scattering on the $0\nu2\beta$-decay daughter nucleus candidate ^{76}Se[1] N.M. COOPER, V. WERNER, L. BETTERMANN, Yale University, F. REICHELT, N. PIETRALLA, D. SAVRAN, K. SONNABEND, M. FRITZSCHE, TU-Darmstadt, Germany, S.W. YATES, University of Kentucky — The Pygmy dipole resonance (PDR) was extensively studied in spherical nuclei, especially along the N=82 shell closure. The PDR is thought to be a dipole vibration of an inert proton-neutron core against a neutron skin. The dependence of the PDR on deformation has so far not been tested in nuclei with small N/Z ratios. The dipole strength distribution up to 9 MeV may serve as a test for QRPA calculations relevant to $0\nu2\beta$-decay. Photon scattering experiments on ^{76}Se have been performed using incident photons from the S-DALINAC facility at the TU-Darmstadt. The isotopically enriched sample was irradiated at different photon endpoint energies. Preliminary results will be presented.

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