Abstract Submitted
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Dipole Resonances of ^{76}Ge[1] R.S. ILIEVA, Yale University, University of Surrey, N. COOPER, V. WERNER, Yale University, G. RUSEV, TUNL, Los Alamos National Laboratory, N. PIETRALLA, TU Darmstadt, J.H. KELLY, W. TORNOW, TUNL, S.W. YATES, B.P. CRIDER, E. PETERS, University of Kentucky — Dipole resonances in ^{76}Ge have been studied using the method of Nuclear Resonance Fluorescence (NRF). The experiment was performed using the Free Electron Laser facility at HIγS/TUNL, which produced linearly polarised quasi-monoenergetic photons in the 4-9 MeV energy range. Photon strength, in particular dipole strength, is an important ingredient in nuclear reaction calculations, and recent interest in its study has been stimulated by observations of a pygmy dipole resonance near the neutron separation energy S_n of certain nuclei. Furthermore, ^{76}Ge is a candidate for $0\nu2\beta$-decay. The results are complimentary to a relevant experiment done at TU Darmstadt using Bremsstrahlung beams. Single-resonance parities and a preliminary estimate of the total photo-excitation cross section will be presented.

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