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Coulomb excitation on the 184,186,188Hg nuclei

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We report on a Coulomb excitation experiment at 'safe' energies on the even-even neutron-deficient 184,186,188Hg isotopes at the REX-ISOLDE radioactive beam facility. For the first time a Coulomb excitation experiment using post-accelerated radioactive ion beams was performed in the heavy mass region. Apart from the first 2+ to the 0+ ground state transition, also Coulex towards the second 2+ and the 4+ state was observed and gamma-rays from the different decay paths were detected in the Miniball gamma-spectrometer. From the intensity of these gamma-rays the matrix elements connecting the different states in the different bands will be deduced for these nuclei. The obtained results should lead to a better understanding of the shape coexistence in this mass region of the nuclear chart.

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