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Quadrupole collectivity in ^{20}Mg

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The Coulomb excitation of the very proton-rich nucleus ^{20}Mg was studied using a radioactive ^{20}Mg beam at 58 A MeV impinging on a lead target.
The reduced transition probability B(E2; $0^+_{gs} \rightarrow 2^+_1$) was extracted.
The ratio of the neutron-to-proton multipole matrix elements M_n/M_p
was deduced by comparing the B(E2) with that for the mirror nucleus ^{20}O assuming the isospin symmetry.
The results confirm the large M_n/M_p in ^{20}O, leading to a large isovector component for the transition.

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