
CHIRAL SYMMETRY STUDIES IN ^{194}Tl

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When a left-handed and a right-handed nuclear system form in angular momentum space, a pair of nearly degenerate rotational bands is observed. To identify chiral symmetry most important is to establish near-degeneracy both in the excitation energies of the partner bands, and in their intra-band and inter-band B(M1) and B(E2) transition probabilities. We have observed a pair of negative-parity bands in ^{194}Tl , which show excellent near-degeneracy [1]. Furthermore a third negative-parity was associated with the same nucleon configuration and which suggest that a second chiral system may exist in ^{194}Tl [2]. To study these bands further dedicated DSAM lifetime measurements were performed for ^{194}Tl [3]. The results obtained for the chiral bands will be presented and discussed.

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