# Dynamic chirality in nuclear physics

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**Abstract**

The spontaneous breaking of the chiral symmetry by the axial angular momentum vector leads to a pair of degenerate $\Delta I = 1$ rotational bands, called chiral doublet bands. In many cases the energy degeneracy of the chiral candidate bands was almost observed but the transition probabilities are different. This fact is clearly seen in the cases of $^{134}$Pr and $^{102}$Rh. The structure of these two chiral candidate nuclei have been studied in details. The yrast and the side bands should be nearly degenerate. In the angular momentum region where chirality sets in the B(E2) values of the electromagnetic transitions deexciting analog states of the chiral twin bands should be almost equal. Correspondingly the B(M1) values should exhibit staggering. Our lifetime measurements and the theoretical analysis do not support static chirality. This means that the chirality, has mainly a dynamical character in both nuclei.

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