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中国原子能科学研究院第24届“五四”青年学术报告会议论文选

A~110核区手征双重带寻找

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摘要 用重离子熔合蒸发反应布居A~110核区缺中子奇奇核^{106,108}Ag的高自旋态，分别在这两个核中找到了类似^{104}Rh中基于$\pi g_{9/2}\,\nu h_{11/2}$组态的手征双带结构。它们的能级能量、旋称及$B$(M1)/$B$(E2)随角动量的变化关系符合手征带的特征。然而，进一步分析发现，^{106}Ag、^{108}Ag双带之间的转动惯量及准粒子角动量顺排存在较大差别，说明两者的晕带和伴带所基于的核芯形变与角动量耦合模式并不一致。

关键词 能级纲图 手征性 转动惯量 旋称

分类号

Quest for Chiral Doublet Bands in *A*~110 Mass Region

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Abstract High spin states of ^{106,108}Ag were studied by using fusion evaporation reaction on Beijing HI-13 Tandem Accelerator. The negative-parity bands were updated for both nuclei. Doublet bands similar to chiral bands in ^{104}Rh were indentified in ^{106,108}Ag respectively. But there is much difference of the moment of inertia and alignment between the yrast and yrare bands in both of them. It may result from the different deformations of the core and angular momentum coupling mode between valence particles and the inner-core for the yrast and yrare bands.

Key words level scheme chirality moment of inertia signature

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