

Systematics of N=79 Nuclei

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A systematic experimental investigation of N=79 nuclei was undertaken at BNL by using (n,γ) reactions. The results obtained are interpreted in the framework of the cluster-vibration model (CVM). As a key to determine the critical single-hole ordering ($s_{1/2}^{-1} d_{3/2}^{-1}$) the experimental sign of $Q(3/2_1^+)$ was exploited. The fact that $Q(3/2_1^+) > 0$ is consistent only with $\epsilon(s_{1/2}^{-1}) < \epsilon(d_{3/2}^{-1})$. Fig. 1 shows the result of the calculation for an average parametrization and a tentative comparison with the systematics of N=79 nuclei performed in the present experiment.

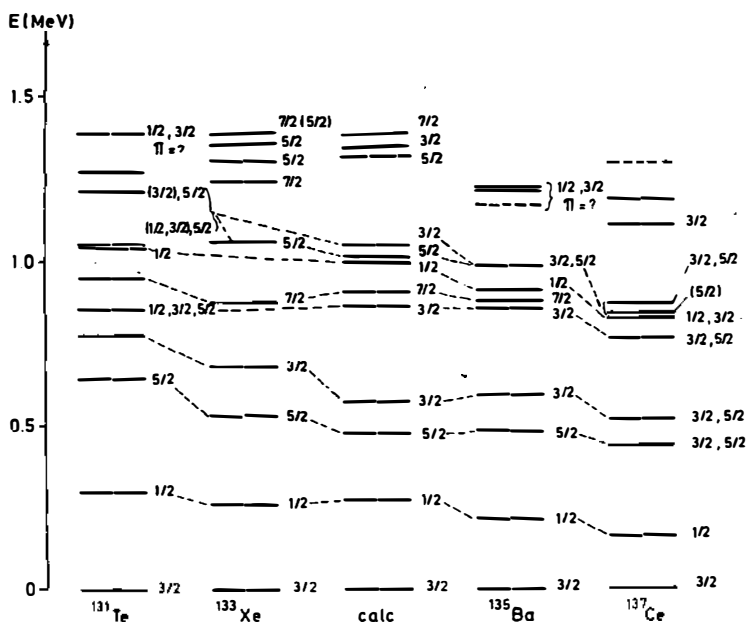


Fig. 1