
Inelastic scattering **[1981Ro09,1976Da17](#)**

<u>Type</u>	<u>Author</u>	<u>History Citation</u>	<u>Literature Cutoff Date</u>
Full Evaluation	Shaofei Zhu	NDS 182, 2 (2022).	1-Apr-2022

[1981Ro09](#): $^{236}\text{U}(\text{p},\text{p}') \text{ E}(\text{p})=35 \text{ MeV}$; measured angular distribution of 0^+ to 8^+ levels in the g.s. band; deduced deformation parameters $\beta_2=0.220 \text{ 2}$, $\beta_4=0.063 \text{ 2}$, $\beta_6=-0.003 \text{ 5}$, and moments $q_{20}=3.17 \text{ 7 eb}^2$, $q_{40}=1.00 \text{ 7 eb}^4$ and $q_{60}=0.21 \text{ 8 eb}^6$ with rotational model $B(\text{E}\lambda, 0^+ \rightarrow \lambda^+) = q_{\lambda 0}^2$ using optical potential and coupled channel calculations.

[1976Da17](#): $^{236}\text{U}(\alpha, \alpha') \text{ E}(\alpha)=50 \text{ MeV}$, measured angular distribution; deduced deformation parameters $\beta_2=0.187 \text{ 12}$ and $\beta_4=0.043 \text{ 10}$ with $r_0=1.2 \text{ fm}$ using optical potential and coupled channel calculations.

 ^{236}U Levels

<u>E(level)</u>	<u>J$^\pi$</u>
0	0^+
45	2^+
149	4^+
310	6^+
522	8^+