

Structure and Decay Properties of K-Isomers in Nuclei with $A > 100$: Database and Publication

**Filip G. Kondev (ANL), T. Kibedi & G.D.
Dracoulis (ANU)**

K-Isomers Evaluation

the physics case reported at the 2007 St. Petersburg NSDD meeting

- ❑ aims & scope – to evaluate properties of all K-isomers in deformed nuclei – including E_x , K , J^π , $T_{1/2}$, BR, ICC, $B(XL)$ and - no such systematic study exists
- ❑ encouraged by the research community – e.g. International Workshop on “Atomic Effects in Nuclear Excitation and Decay”, 15-19 June 2009 ECT*, Trento, Italy
- ❑ ENSDF formatted K-isomers file – updated continuously, just like the Table of Superdeformed Bands evaluation (McMaster U & LBNL)
- ❑ draft of the review article - submission to ADNDT by the end of the year – the editor (D. Schultz) has been contacted and positive response has been received



K-Isomers Evaluation-cont.

The data are evaluated in ENSDF format

- ✓ have agreed on general policies – tried to follow the ENSDF policies as much as possible
- ✓ specialized codes were developed

The evaluation is essentially completed

- ✓ can easily be used to update ENSDF
- ✓ will make specific recommendations to improve ENSDF – introduction of the K-quantum number explicitly
- ✓ it will be continuously updated
- ✓ the need to include other classes of isomers – will depend on the needs of the community

