



THE AUSTRALIAN NATIONAL UNIVERSITY

ENSDF related activities (2023-2024)

Tibor Kibèdi (ANU)

TK retired in Nov 2020, Continue nuclear data related work at ANU (office, access to Library)

Jackson Dowie: completed PhD in 2021 expressed interest in BrIcc

Bryan Tee: completed PhD in 2022, currently at CSRIO, working on NS_RadList

No new student on ENSDF related work, but both Jackson and Bryan interested to continue

Mass chain evaluations:

172	B. Singh, T. Kibèdi	Review completed (Dec 2018) Final revision in progress (Balraj, until Jul 2023) Files received (Dec-2023) <ul style="list-style-type: none"> - Most reviewers comments implemented - Only a few smaller new dataset need to be added - Some of the decay data sets need to be revised: MR, ICC, normalisations, run BetaShape
173	T. Kibèdi	In preparation
174	E. Browne, J.K. Tuli, T. Kibèdi	Z=66-69 (EB, JKT, submitted for review) Z=70-80 (TK in progress)

No Mass chain review requested

Decay Data for Monitoring Applications:

Evaluations

- ^{137}Cs β^- completed (Aug 2022, finalised Dec 2023)
- ^{136}Cs β^- in preparation
- ^{131}I β^- in preparation

Review

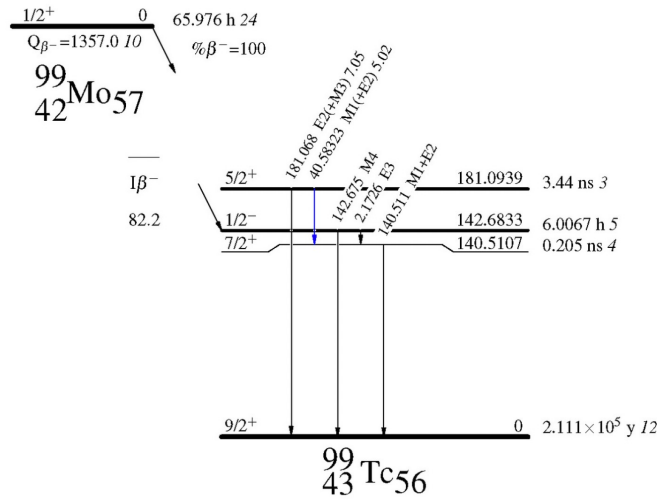
- ^{105}Sb (Singh) 15-Nov-2022,
- ^{127}Sb β^- (Nichols) completed June 2022
- ^{143}Ce β^- (Singh) completed June 2022, finalised in March 2023

Consultants Meeting at IAEA (Dec 2023, Kondev, Dimitriou, Verpelli, Kibedi)

NS Radlist & UncTools: extensively tested

Low-energy Auger and conversion electron spectroscopy of ^{99}Mo β^- -decay

B.P.E. Tee^a, M. P. Roberts^b, Paul A. Pellegrini^b, Flora Mansour^b, Leena Burgess^b, M. Vos^c, T. Kibédi^a



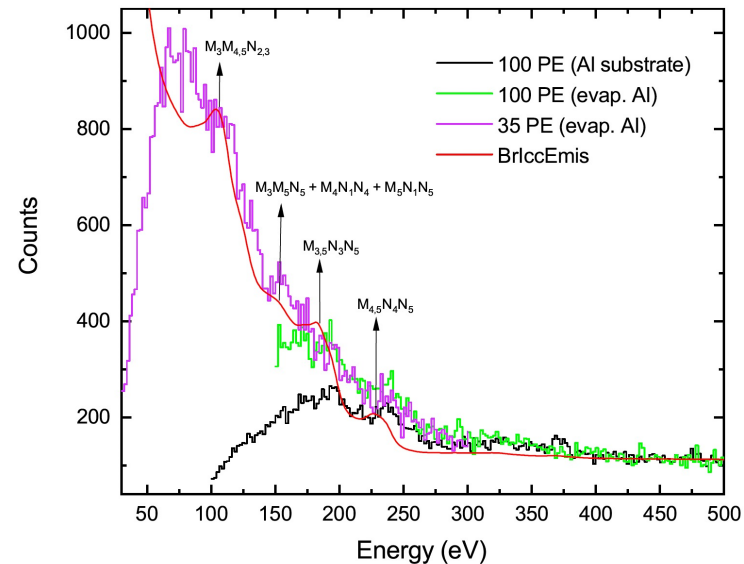
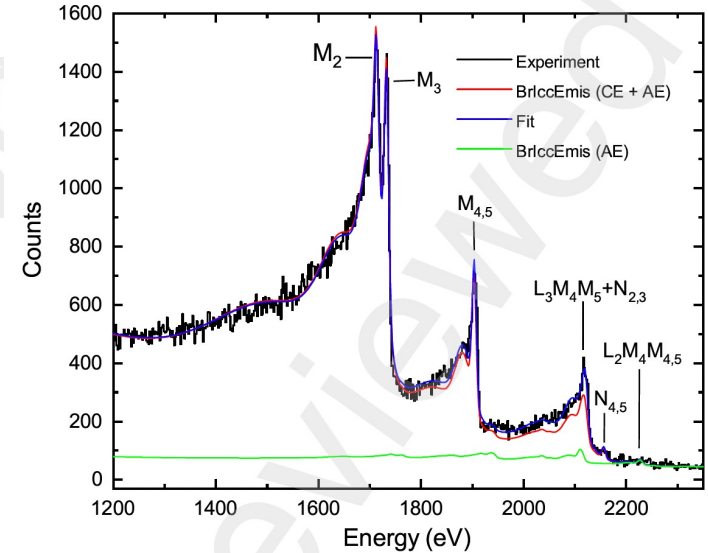
^{99}Mo β^- (66 d)

□ 0.4 Auger/decay

^{99m}Tc ($T_{1/2}=6.0$ h)

□ 82.2% population from β^- decay

□ 4.4 Auger/decay



Codes released and maintained by the ANU

- ❑ BrIcc 2.3e (17-Jun-2020); extended for 0.3 keV above BE (Z=4- 126)
- ❑ BrIccMixing 2.3e (14-Aug-2020)
- ❑ GABS (20-Jun-2021)
- ❑ AveTools (10-Dec-2014)
- ❑ UncTools: need to adopt PDF for asymmetric UNC and limits (Thursday)
 - E0 evaluation 2022Ki03
 - Decay Data Library for Monitoring Applications (2023 Dec CM)
- ❑ NS_RadList
 - EC rates from BetaShape
 - Average decay energy calculated from all decay channels
 - Decay Data Library for Monitoring Applications (2023 Dec CM)

More on Thursday morning