Programme Overview

X. Mougeot, CEA-LNHB (France)

DDEP Training Workshop

21-25 October 2024, CEA Saclay

First objective

Understanding what are recommended decay data

- Which kind of data / information are we talking about?
- Which physical processes are linked to these data?
- Where can these data be found?
- How have they been established?
- Which confidence can I have in a given recommended data?
- How can I improve poor information?

  → New measurements, re-evaluation of a quantity with new publications

Second objective

Taking part in the DDEP collaboration

1. Reviewing decay data evaluations

An evaluator has to study every publication carefully and built their dataset with what they consider to be the most reliable and accurate data. No one can be expert in every fields and evaluation is a complicated process.

→ The reviewer helps the evaluator highlighting what may have been missed.

2. Becoming a decay data evaluator

Evaluating, reviewing, discussing the rules for evaluation, the methods, the tools, etc.

→ That’s the Holy Grail!

Radioactive processes

Day 1: Monday 21st October			
11:15	11:45	Main radioactive processes	S. Leblond
11:45	12:00	Discussion	
12:00	**14:00**	***Lunch Break***	
14:00	14:30	Alpha spectrometry	S. Pierre
14:30	15:00	Beta decays and Electron Capture	X. Mougeot
15:00	15:30	Gamma spectrometry	M.-C. Lépy
15:30	**16:00**	***Coffee Break***	
16:00	16:30	Atomic processes	X. Mougeot
16:30	17:00	DDEP external calculation codes	S. Leblond

Guide to evaluation

Day 2: Tuesday 22nd October			
		How-to: guide to evaluation	
09:00	09:30	Evaluation process overview	X. Mougeot
09:30	10:00	Half-life study	P. Cassette
10:00	10:30	Gathering & analysing bibliography	S. Leblond
10:30	**11:00**	***Coffee Break***	
11:00	12:00	Dataset and statistical analysis	S. Leblond
12:00	**14:00**	***Lunch Break***	
15:30	**16:00**	***Coffee Break***	
16:00	16:30	Getting started with SAISINUC	C. Dulieu, All

Day 5: Friday 25th October			
10:00	10:30	Review & edition processes	X. Mougeot

Some recent evaluations

Day 2: Tuesday 22nd October			
		Presentation of an evaluation	
14:00	15:30	Evaluation of ^{103}Pd/^{103m}Rh: an electron capture decay with parent-daughter equilibrium	A.L. Nichols

+ 1 more presentation: Atomic and nuclear decay data – a few recent observations

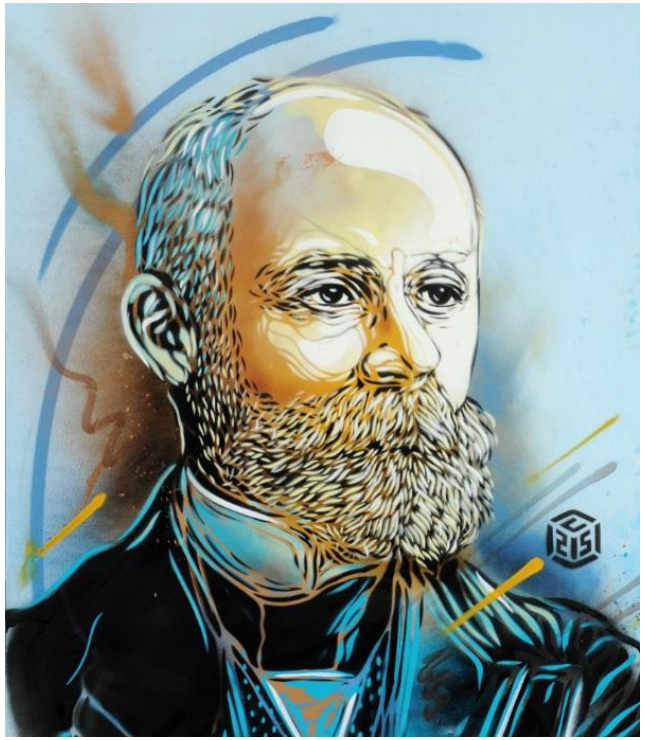
Day 3: Wednesday 23th October			
		Presentation of an evaluation	
09:00	10:00	Evaluation of ^{166}Ho: a β^- decay scheme updated with new measurements	B. Zimmerman

Day 4: Thursday 24th October			
		Presentation of an evaluation	
09:00	10:30	Evaluation of ^{229}Th: a complicated α decay scheme	X. Huang

Practical case

Day 3: Wednesday 23th October			
Study of a practical case			
10:30	12:00	Half-life evaluation of ^{55}Co decay	All

Day 4: Thursday 24th October			
11:00	12:00	Building ^{55}Co decay scheme from γ-ray intensities (Part 1)	All
12:00	**14:00**	***Lunch Break***	
14:00	15:30	Building ^{55}Co decay scheme from γ-ray intensities (Part 2)	All
15:30	**16:00**	***Coffee Break***	
16:00	17:00	^{55}Co evaluation in SAISINUC: filling in, checking	All

Day 5: Friday 25th October			
Study of a practical case			
09:00	10:00	Finalizing an evaluation	All

Thank you for attention