Guides, Standards and Conventions

Evaluations of the decay data of ⁵²Mn, ^{52m}Mn, ¹²⁴I and ¹³¹Cs from the Decay Data Evaluation Project (DDEP) – 2021

Xavier Mougeot^{1,*,ORCID}, Christophe Dulieu¹, Mark A. Kellett¹, Tibor Kibédi², Sylvain Leblond¹, Aurelian Luca³, Alan L. Nichols⁴, Brian E. Zimmerman⁵

Author affiliations

- ¹ Université Paris-Saclay, CEA, List, Laboratoire National Henri Becquerel (LNE-LNHB), 91120 Palaiseau, France
- ² Department of Nuclear Physics and Accelerator Applications, Australian National University, Canberra, Australia
- ³ Horia Hulubei National Institute for Research and Development in Physics and Nuclear Engineering (IFIN-HH), 30 Reactorului Street, Magurele, PO Box MG-6, Ilfov County, 077125, Romania
- ⁴ Department of Physics, University of Surrey, Guildford GU2 7XH, United Kingdom
- ⁵ Physical Measurement Laboratory, National Institute of Standards and Technology, Gaithersburg, MD 20899-8462, United States of America

* Corresponding author: xavier.mougeot@cea.fr

ORCID: 0000-0001-6161-8208

Main text

Since 1995, members of the Decay Data Evaluation Project (DDEP) have evaluated the decay data from different radionuclides of special interest for metrology or practical applications, e.g. nuclear medicine, monitoring and reactor shielding, etc. Since 2004, these evaluations have regularly been published under the auspices of the Bureau International des Poids et Mesures (BIPM) on behalf of the Consultative Committee for Ionizing Radiation (*Comité Consultatif des Rayonnements Ionisants*, CCRI).

DDEP evaluations finalised in 2021 are published with their Tables, which summarise the recommended data of the radionuclides and their decay schemes, and the evaluator's report describing the evaluation procedure (Comments).

Tables and Comments of the ⁵²Mn evaluation are available here: Mn-52 Report.

Tables and Comments of the ^{52m}Mn evaluation are available here: Mn-52m Report.

Tables and Comments of the ¹²⁴I evaluation are available here: I-124 Report.

Tables and Comments of the ¹³¹Cs evaluation are available here: Cs-131 Report.

All evaluations have been peer-reviewed and approved for publication by the DDEP collaboration. They can be found, along with additional files in machine-readable formats, on the DDEP section of LNHB website. The list of past and present DDEP members is available here.