Argonne NATIONAL LABORATORY

Member of the US Nuclear Data Program

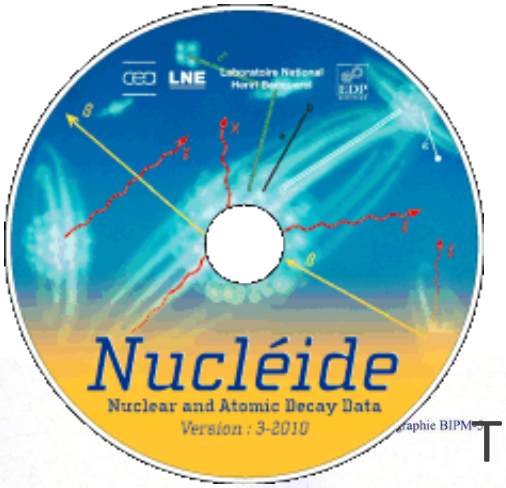
Decay Data Evaluation Project (DDEP): Status

kondev@anl.gov

2012 USNDP Meeting, BNL, November 5-6, 2012

U.S. DEPARTMENT OF ENERGY

Mission



www.nucleide.org/DDEP_WG/DDEPdata.htm

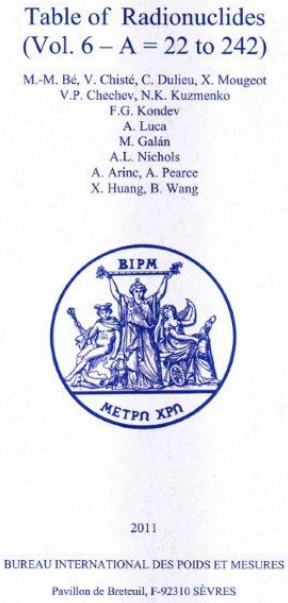


Table of Radionuclides
(Vol. 6 – A = 22 to 242)

M.-M. Bé, V. Chisté, C. Dulieu, X. Mougeot
V.P. Chechev, N.K. Kuzmenko
F.G. Kondev
A. Luca
M. Galán
A.L. Nichols
A. Arinc, A. Pearce
X. Huang, B. Wang

BIPM
МЕТРО ΧΡΟ

2011

BUREAU INTERNATIONAL DES POIDS ET MESURES

Pavillon de Breteuil, F-92310 SÈVRES

The **Decay Data Evaluation Project** (DDEP) is an international collaboration of scientists from EU, US, China, Russia and Australia. The main goal is to provide carefully evaluated decay data for radioactive nuclei that are of importance to various applications

The **Focal Point** of the collaboration is **LNHB, France**

- ✓ custodian of the DDEP database
- ✓ editorial work for various publications

DDEP - bi-annual meetings

LNE

Le progrès, une passion à partager

Paris: October 8-10, 2012

2012 USNDP Meeting, BNL, November 5-6, 2012

Introductory session
- Introduction - M.-M. Bé
- Presentation of LNE/LNHB - B. Chauvenet
- DDEP Activities 2010-2012 - F.G. Kondev

International collaboration
- ENSDF Status and future plans - J.K. Tuli
- XUNDL Status and future plans - B. Singh
- IAEA's commitment to nuclear structure and decay data - V. Demetriou
- Status of international collaboration initiatives - M.-M. Bé
- BIPM presentation - G. Ratel

Atomic data
- Measurement of X-ray data at LNHB - M.-C. Lépy
- Development of a code for calculating atomic radiations - T. Kibédi

Determination of beta spectral shape
- Calculation of beta spectral shape - X. Mougeot
- Measurement of beta spectral shape - C. Bisch

Applications and measurements
- Determination of gamma-ray transition probabilities and decay branching fractions from neutron capture data - EGAF - R.B. Firestone
- Astrophysical decay data - V.P. Chechev
- Atomic Mass Evaluation 2012 - G. Audi
- Renewed interest in delayed neutron data - B. Singh

DDEP relevant software
- Software and website development at LNHB - C. Dulieu

DDEP Collaboration
- Submission and review of evaluations - M.-M. Bé

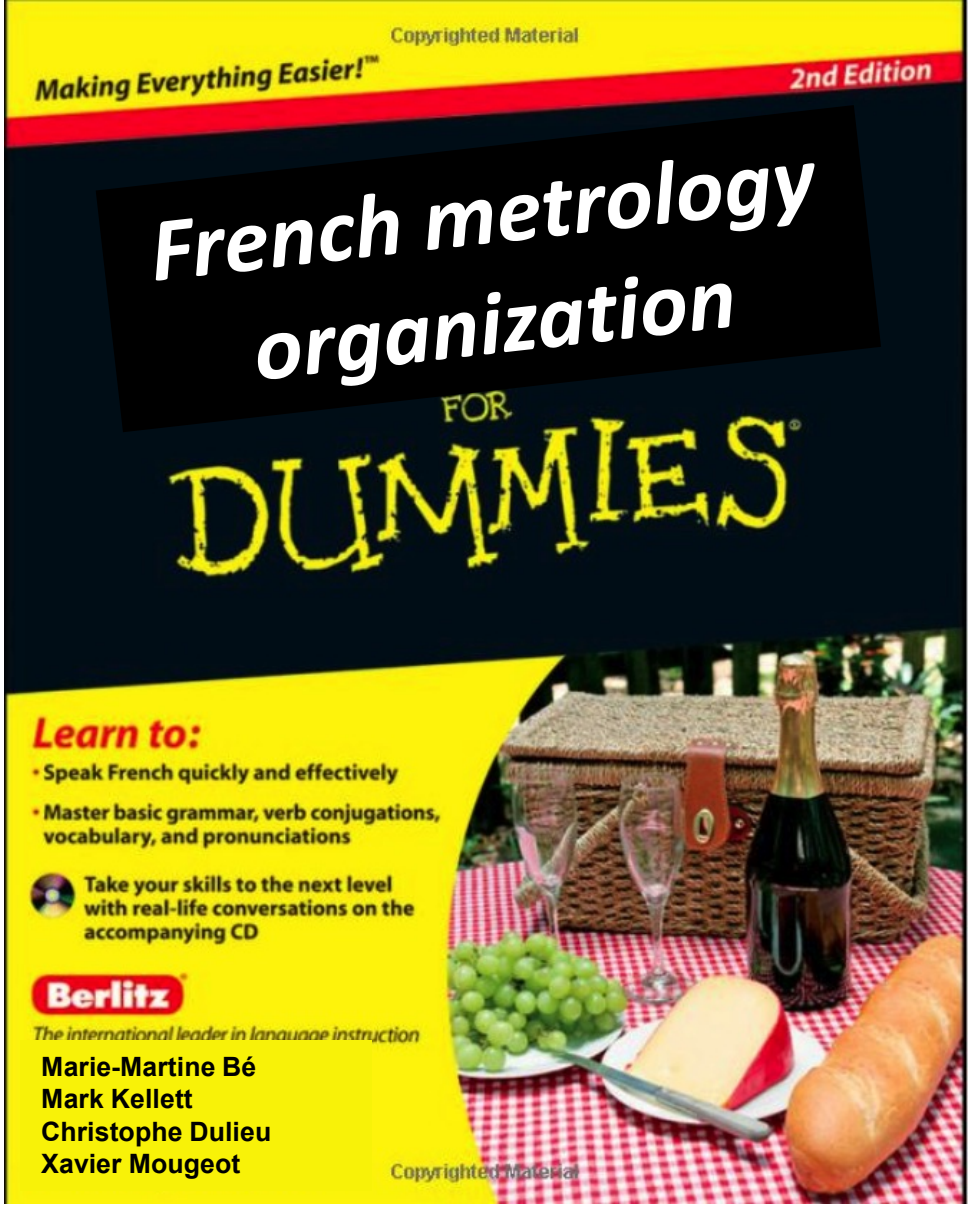
DDEP evaluation techniques
- An interactive tool for averaging numbers - B. Singh

Publication and status of evaluations
- The BIPM-5 Monographie series - M.-M. Bé
- IAEA publication of the *Updated Decay Data Library for Actinides* - M.A. Kellett

(Near) Future Plans

- **Developments (of interest to USNDP)**
  - ✓ calculations of the shape of beta-spectra with emphasis on forbidden, non-unique transitions (J. Mougeot, LNHB)
  - ✓ improvements of the atomic radiation data (Auger & X-rays) – collaboration between ANU & ANL (T. Kibedi is leading this effort)
- **Some looming issues**
  - ✓ **sustaining evaluator's effort** – some evaluator groups disappeared (PTB, Korea, Brazil, Spain, Russia,…) – key retirements unlike to be replaced.
  - ✓ **training new evaluators** – it is a long, long, long process – lack of people with the right background - a good evaluation is not just averaging numbers … good news -> new evaluator: M. Kellett

If there are questions or interest – M.M. Be (LNHB) coordinator



NUCLEAR WALLET CARDS

October 2011

Jagdish K. Tuli

National Nuclear Data Center

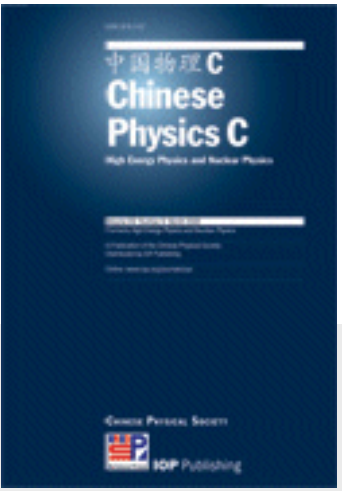
www.nndc.bnl.gov

Brookhaven National Laboratory
P.O. Box 500
Upton, New York 11973-5000
U.S.A.

a slide from B. Chauvenet presentation

AME2012 & NUBASE2012

Collaboration: **G. Audi** (CSNSM-Orsay), W. Mang (IMP-Lanzhou),
F.G. Kondev (ANL-Argonne) & M. MacCormick (IPN-Orsay)



December 2012 issue of Chinese Physics **C** (IOP Science)

http://ribll.impcas.ac.cn/ame/

Evaluations
- AME
- NUBASE

AME + Nubase 2012
- Schedule
- Ask for reprint

Registration

About the AMDC

The "Atomic Mass Data Center" (AMDC) and its electronic bulletin aim at being a meeting place where information on masses (experimental, evaluation or theory) can be exchanged. The main task of the AMDC is to give progress reports on the "Atomic Mass Evaluation" (AME) and the "Nubase Evaluation", and to put at the user's disposal the most recent tables.

The AMDC, presently located at Centre de Spectrométrie Nucléaire et de Spectrométrie de Masse (CSNSM), Orsay, France, will be transfered in 2013 to the Institute of Modern Physics, Chinese Academy of Sciences (IMP), Lanzhou, China.