

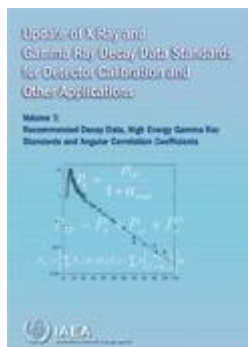
Publicações Recentes

*Versão em papel
disponível para
consulta na Biblioteca*

Update of X Ray and Gamma Ray Decay Data Standards for Detector Calibration and Other Applications (Volumes 1 and 2)

Various groups around the world are engaged in the compilation and evaluation of decay data for all known and specific radionuclides. Many evaluators operate independently and recommend slightly different values for the same parameter. Even small deviations in the recommended data can have a significant impact on definition of the decay characteristics of radionuclides used as standards in detector efficiency calibrations and subsequent applications. High quality decay data are essential for the efficiency calibration of X and gamma ray detectors that are used to quantify the radionuclidic content of a sample by determining the intensities of any resulting X and gamma rays. A major objective of the IAEA nuclear data programme is to promote improvements in the quality of nuclear data used in science and technology. This report presents the results of a coordinated research project on X ray and gamma ray decay data standards for detector calibration and other applications. Recommended half-lives and X and gamma ray emission probabilities are listed in the first part of this report for a carefully selected set of radionuclides and nuclear reactions that are suitable for detector efficiency calibration and other applications. The evaluation procedures used to obtain the recommended values and their uncertainties are detailed in the second part, along with comments on the remaining discrepancies. An appropriate set of suitable X and gamma ray standards have been derived with the expectation that the recommended values will be recognized as international reference standards.

STI/PUB/1287, 210 pp.; 6 figures; 2007, ISBN 92-0-113606-4, English. Date of Issue: 27 November 2007. Subject Classification: 0301 - Physics; 0306 - Nuclear data.

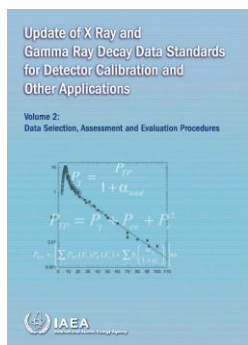


UPDATE OF X RAY AND GAMMA RAY DECAY DATA STANDARDS FOR DETECTOR CALIBRATION AND OTHER APPLICATIONS

Volume 1

Recommended Decay Data, High Energy Gamma Ray Standards and Angular Correlation Coefficients

http://www-pub.iaea.org/MTCD/publications/PDF/Pub1287_Vol1_web.pdf



UPDATE OF X RAY AND GAMMA RAY DECAY DATA STANDARDS FOR DETECTOR CALIBRATION AND OTHER APPLICATIONS

Volume 2

Data Selection, Assessment and Evaluation Procedures

http://www-pub.iaea.org/MTCD/publications/PDF/Pub1287_Vol2_web.pdf

AVISO!

Todas as publicações aqui referenciadas encontram-se disponíveis em PAPEL para consulta na Biblioteca, assim como os ficheiros em PDF ([\\bib-voltaire\users\public\documents](http://bib-voltaire.users.public.documents))