

Nuclide Guide and International Chart of Nuclides-2010

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New versions of Nuclide Guide (NG) and Chart of the Nuclides (CN) were developed as a result of Russian-Chinese collaboration. Compared to the previous versions of the NG and CN-2006, 2009 new evaluated information has been included to the NG and CN-2010 from the following publications: 1) Nuclear Data Sheets, volumes 107 – 110, 2) Monographie BIPM-5, Table of Radionuclides, 2006, 3) Monographie BIPM-5, Table of Radionuclides, 2008. In addition, for the Nuclide Guide-2010 the authors re-calculated the average energies of radiations of the 500 radionuclides with half-lives about and more than 1 hour. The International Chart of Nuclides was developed taking into account information added and revised in Nuclide Guide-2010.

The nuclear data directories and wall charts of the nuclides are widely used by wide circle of experts of different level (students, graduate students, engineers, scientific researchers), who would like to have primary true information on stable and radioactive nuclides. In all such publications it is important to deal with high-quality and critical evaluated decay data for radionuclides. Therefore a periodic revision of nuclide guides and charts is highly desirable as the quality of measurements and evaluations is improved permanently [1].

The new Nuclide Guide and Chart–2009 have been developed as a revised and updated versions of the NG and CN-2006 produced in the issue of Russian-Chinese collaboration [1], [2], [3].

Charts and guides of nuclides present the evident primary information on the basic characteristics of stable nuclides and decay properties of the radioactive nucleus. The further, more detailed information on nuclide characteristics is contained in various specialized nuclear data collections and bases. Computers are used now most often to retrieve the data. However just as electronic carriers have not cancelled the traditional form of the literature as printed books, the nuclide guides and charts of nuclides which include the recommended and standard nuclear data are used not only in nuclear science and technology but also in space, medicine, agriculture, environmental protection, etc. Due to them each person can quickly orient himself in huge quantity of the nuclides (exceeding 3500), nuclear isomers, nuclear masses, half-lives and other characteristics. The authors hope that the Nuclide Guide and International Chart of Nuclides - 2010 completely meet this goal.

[1] T. Golashvili, S. Badikov, V. Chechev, Zhao Zhixiang, Huang Xiaolong, Ge Zhigang, Wu Zhendong, “Nuclide Guide and International Chart of Nuclides - 2006”, in *Proceedings of the International Conference on Nuclear Data for Science and Technology*, April 22-27, 2007, Nice, France, editors O. Bersillon, F. Gunsing, E. Bauge, R. Jacqmin, and S. Leray, EDP Sciences, 2008, pp. 85-87.

[2] *Nuclear Data Sheets*, **107 - 110** (2006 – 2009).

[3] [G. Audi](#), [O. Bersillon](#), [J. Blachot](#), [A.H. Wapstra](#), “The NUBASE evaluation of nuclear and decay properties”, *Nucl. Phys.* **A729**, 3 (2003).