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Isotopes Project

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The Isotopes Project compiles, evaluates, and disseminates nuclear structure and radioactive decay data for basic and applied research. The group coordinates its activities with both the national and international data networks and plays a major leadership role in the U.S. Nuclear Data Network (USNDN). The traditional strong data evaluation effort of the group continues. The Isotopes Project has also become a lead data center for the development of new electronic dissemination and publication methods for nuclear data. This annual report period has been particularly productive with the completion of several major projects, many of them in collaboration with researchers from other institutions.

- Released 1998 CD-ROM update to 8th edition of the *Table of Isotopes*
- Released version 2.0 of Isotope Explorer software on the World Wide Web
- Established user-friendly Internet web sites for high-spin and superdeformed data, nuclear astrophysics, neutron capture data, spontaneous fission data, Nuclear Science References
- Demonstrated developments and new access capabilities to data for the research community at professional meetings
- Published evaluations for $A = 90, 93, 186$ in Nuclear Data Sheets

New research priorities present special opportunities and challenges for the nuclear data program. Three particular areas of opportunity are: the high-spin research community, where large detector arrays are producing data at tremendous rates; nuclear astrophysics, where there is a stated need for the collection and dissemination of laboratory and theoretical nuclear astrophysics data; and the needs of both the basic and applied research communities for critically evaluated decay data. The Isotopes Project has continued evaluation and dissemination efforts in these new areas while also continuing its traditional mass-chain evaluations. The Isotopes Project also continues to make significant progress in exploiting the capabilities of the Internet.

The Isotopes Project will continue its leading role in data evaluation and dissemination. Continued development of Internet data dissemination will be a major activity. The goal is to distribute data to the research community using convenient and effective formats, so that the information can be utilized for the advancement of science and technology.

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