

REPORT

To IAEA Advisory Group Meeting on

NUCLEAR STRUCTURE AND DECAY DATA EVALUATORS’

NETWORK

TUNL NUCLEAR DATA EVALUATION PROJECT

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I. ENSDF

TUNL is responsible for data evaluations in the mass range $A = 3-20$. Since the last NSDD/IAEA meeting a review of $A=12$ nuclides has been completed, a review of $A=3$ nuclides, based on our 2010 Nuclear Physics article, was published in NDS. A review of $A=2$ nuclides continues.

Recent Publications from the TUNL Data Evaluation Group

Nuclear Mass	Publication/Status
A=3	Nucl. Data Sheets Dec 2015
A= 12	Submitted to Nucl. Phys. A

We anticipate addition of the $A=12$ ENSDF information into the database soon after the article publishes. Future light-nuclei reviews will be published exclusively in NDS. In addition to these A-chain reviews, we have added reviews of ^{4,6}n, ⁷H, ^{16,18}B, ^{17,18,19}C, ¹¹O, ¹⁵F and ^{17,18,19}Na to the ENSDF, and we have added ¹⁷B(β -n), ¹⁷C(β -n) and ¹⁸C(β -n) delayed particle emission datasets to ENSDF.

We contribute the compilation effort that covers the $A=2-20$ region for XUNDL; this is about 5 articles/month.

II. World Wide Web Services

TUNL continues to develop new WWW services for the nuclear science and applications communities. We have posted PDF and HTML documents for the TUNL and Fay Ajzenberg-Selove “Energy Levels of Light Nuclei” reviews and GIF, PDF and EPS/PS files of the Energy Level Diagrams. We also provide focused information on Thermal Neutron Capture data, Beta Decay data, and measured excitation functions for light-particle reactions relevant to the $A=3-20$ nuclides. Recently, we have compiled a list of evaluated lifetime values for all nuclei in the $A=3-20$ region.

III. Related Activities

In 2015-2016, Grace Sheu was involved in the effort of producing print ready and review drafts of articles in connection with the preparation of manuscripts for Nuclear Data Sheets.

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