MEMO 4C - 2/122

DAT/324-0

NDB/0959/cel
16th April 1984

To: Distribution

From: A.P. Thompson

Subject: CINDA Manual Update

Following decisions taken at the 1983 NRDC Meeting, four pages of the CINDA Manual require updating (CP-D/122 and 4C-2/120). These pages are attached.

Distribution: Dr. V. Manokhin
Dr. J.J. Schmidt
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INFORMATION

84/04/25

ACKNOWLEDGEMENT

ORIGINAL TO:

ENCLOSURES

NO: 2 2

DESCRIPTION: 4th

cc. Cullen
Gandasias Cruz
Lammer
Lemmel
Okamoto
Oshomuvwe
Pronyaev
Schmidt
Schwesr
Seitz

J15035

Indirectly deduced values

If a value has been obtained simply by subtraction or addition of the quantity measured with a value taken from other work or a compilation such as BNL 325, enter only the measured quantity.

Inverse reactions

Charged-particle reactions from which useful information can be deduced about an inverse neutron-induced reaction should be entered under the target and cross-section of the neutron-induced reaction. However, only a small proportion of measurements do give enough information to apply the principle of detailed balance. If such an entry is made, the energy range for the reaction must be converted, at least approximately.

(d,p) and (d,pf) reactions

Useful information can be deduced about the equivalent (n,γ) and (n,f) reactions; entries should be made under NG or NF with an appropriate note in the comments.

Cross section ratios

If a ratio is relative to a quantity included in the EXFOR list of standards, no CINDA entry is made for the standard. If both (or neither) of the reactions in the ratio are standards, CINDA entries are made for both reactions.

DEFINITION OF QUANTITY CODES IN CINDA

Reaction (Goldstein) notation)	Code	Expansion in CINDA book	
$\sigma_{n,n}(E)$	SEL	Elastic	Neutron nuclear scattering Definition: The total elastic scattering cross-section, integrated over all angles. Scattering amplitude measurements are entered under Elastic, with a note in the comment. Associated quantities: DEL, POL, POT.
$\sigma_{n,n}(E,\theta)$	DEL	Diff. Elastic	Definition: Angular distribution (not normalized) or differential scattering cross-section (normalised) for elastically scattered neutrons. Where the author has integrated a distribution already normalised at one angle to give the total elastic scattering cross-section enter also under Elastic. Associated quantities: SEL, POL, POT.
	POL	Polarisation	Definition: All polarisation measurements on outgoing particles, following scattering or any other reaction. Associated quantities: DEL. In entries for work published before 1970, polarisation measurements are likely to be entered only as DEL. Where readers notice such cases, they should make a POL entry for that target.

Reaction (Goldstein notation)	Code	Expansion in CINDA book	
$\sigma_{n,\gamma}(E)$	NG	(n,γ)	Definition: The (n,γ) total cross-section and the (n,γ) partial cross-sections leading to a metastable state. All other quantities referring to (n,γ) reactions are coded under SNG.
	SNG	Spect.(n,γ)	Definition: All quantities referring to the (n,γ) reaction which are not included under NG. Note 1: The term 'gamma decay' includes the competing processes of internal conversion and pair production, so that conversion electron spectra from neutron capture would be entered under 'Spect NGamma' with an appropriate comment. Note 2: Do not make entries for the gamma spectrum observed following the beta decay of the product nucleus. SNG is limited to the prompt gammas following neutron capture. Note 3: Measurements of Gamma polarisation following capture of polarised neutrons are entered under SNG, with an appropriate comment. Enter the target nucleus. Associated quantities: RIG, NG, NEG.
$\int_{E_{min}}^{E_{max}} \frac{\sigma_{n,\gamma}(E)}{E} dE$	RIG	Res Int Capt	Definition: Resonance integral for radiative capture for fissionable elements only. Use: Measurements by capture and activation; calculations from NG resonance parameters. With or without the 1/v part. The lower energy limit should be entered. Associated quantities: NG, SNG.

'Data' tags

Entries stored on the NEADB CINDA file used to contain a data tag. This indicated that numerical data corresponding to the reference was on file in one of the regional data centres. The bulk of these tags were added to the file in a semi-automatic comparison of CINDA with the CCDN NEUDADA file in 1969. Since 1970 experimental data has been exchanged between centres in EXFOR format, and the function of the tags is now filled by 'data index entries'. Data tags are no longer maintained on the CINDA file.

In pre-1984 CINDA books, a '+' sign was printed in the right-hand margin against the first reference of all blocks which contained one or more data tags. From 1984 onwards, this plus sign appears for blocks containing one or more data index lines.