INDC-174

EANDC(OR)-62"L"

EANDC(OR)62"L"

Nuclear Data Requirements in Sweden, December 1966

This list replaces the Swedish part of EANDC(OR)42"L"

No.	Isotope, Element or Compound	Quantity	Energy range	Accuracy	Priority	Requestor(s)	Comments
1	N	$\sigma_{nn}(E,\theta)$	8 - 14 MeV	10%	II	Zetterström, FOA	Shielding
2	N	$\sigma_{n,M}(E,E')$	8 - 14 MeV	10%	II	Zetterström, FOA	Shielding
3	O	$\sigma_{n,n}(E,\theta)$	8 - 14 MeV	10%	II	Zetterström, FOA	Shielding
4	O	$\sigma_{n,M}(E,E')$	8 - 14 MeV	10%	II	Zetterström, FOA	Shielding
5	Na	$\sigma_{n,\gamma}(E)$	500eV-100keV	10% or better	II	T.L. Andersson, AE	Spectrum measurements in fast critical assemblies
6	V	$\sigma_{n,\alpha}(E)$, $\bar{\sigma}_{n,\alpha}$	fission spectrum	20%	III	Weitman, AE	Calculation of He-production in fuel cladding
7	Ti	$\sigma_{n,\alpha}(E)$, $\bar{\sigma}_{n,\alpha}$	fission spectrum	20%	III	Weitman, AE	Calculation of He-production in fuel cladding
8	Cr	$\sigma_{n,\alpha}(E)$, $\bar{\sigma}_{n,\alpha}$	fission spectrum	20%	II	Weitman, AE	Calculation of He-production in fuel cladding
9	Mn	$\sigma_{n,\gamma}(E)$	100eV-30keV	5%	II	T.L. Andersson, AE	Spectrum measurements in fast critical assemblies
10	Fe	$\sigma_{n,\alpha}(E)$ $\bar{\sigma}_{n,\alpha}$	fission spectrum	20%	II	Weitman, AE	Calculation of He-production in fuel cladding

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No.	Isotope, Element or Compound	Quantity	Energy range	Accuracy	Priority	Requestor(s)	Comments
11	Ni	$\sigma_{n,\gamma}(E)$	1 eV - 1 MeV	5%	II	Häggblom, AE	The requested accuracy is especially important in the range 10keV-0.5MeV. Energy resolution 10% or better. Needed for fast reactor calculations
12	Ni	$\sigma_{n,\alpha}$ $\bar{\sigma}_{n,\alpha}$	fission spectrum	20%	II	Weitman, AE	Calculation of He-production in fuel cladding
13	Cu	$\sigma_{n,\gamma}(E)$	1 eV - 1 MeV	5%	II	Häggblom, AE	The requested accuracy is especially important in the range 10keV-0.5 MeV. Energy resolution 10% or better. Needed for fast reactor calculations
14	Nb	$\sigma_{n,\alpha}(E)$ $\bar{\sigma}_{n,\alpha}$	fission spectrum	20%	III	Weitman, AE	Calculation of He-production in fuel cladding
15	Mo	$\sigma_{n,\alpha}(E)$, $\bar{\sigma}_{n,\alpha}$	fission spectrum	20%	III	Weitman, AE	Calculation of He-production in fuel cladding
16	W^{186}	Γ_{γ}	18.8 eV resonance	5%	II	T.L. Andersson, AE	Spectrum measurements in fast critical assemblies
17	U^{235}	$\sigma_{n,n'}(E)$	From threshold	<10%	II	Häggblom, AE	Fast reactor calculations
18	U^{238}	$\sigma_{n,\gamma}(E)$	10keV - 1MeV	2%	II	Häggblom, AE	Fast reactor calculations
19	U^{238}	$\sigma_{n,n'}(E)$	70-200 keV	10%	II	Häggblom, AE	Fast reactor calculations
20	Np^{237}	$\sigma_{n,f}(E)$	Threshold - 5 MeV	5%	II	T.L. Andersson, AE	Spectrum measurements in fast critical assemblies

No.	Isotope, Element or Compound	Quantity	Energy range	Accuracy	Priority	Requestor(s)	Comments
21	Pu^{239}	α or $\sigma_{n,\gamma}$	0.5-20 keV	3%	II	Häggblom, AE	Fast reactor calculations
22	For feasibility studies of thermonuclear reactors non-elastic cross sections for $E_n \leq 14$ MeV for Li, Be, C, F, Cr, Ni, Cu, Nb, Mo will be needed. Priority and accuracy cannot be stated at present. Requester: Weitman, AE.						

FOA: Research Institute of National Defence, Stockholm 80.

AE: AB Atomenergi, Studsvik, Nyköping