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Revi[illegible]f EANDC Requests for (n,γ)-Cross Sections (considering EANDC 55 "U")

No.	Nuclei	Energy Range	Accuracy	Remarks
45	^{7}Li	1 keV - 400 keV	20 %	No comment
54	Be	1 keV - 10 MeV	50 %	No comment
117 118 119	Na	1 keV - 100 keV	10 % or better	R.C. Block (1) measured in the energy range 100 eV-200 keV with 10-20% accuracy. I. Bergquist (2) measured in the range 15-100 keV with 20 % accuracy.
140 141	Al	1 keV - 10 keV	20 %	R.C. Block (1) measured between 100 eV and 200 keV with 10-20 % accuracy. I. Bergquist (2) measured between 15-100 keV with 20 % accuracy. Requests partly fulfiled.
187 188	K	1 keV - 2 MeV	20, 25 %	No comment
194	^{41}K	1 keV - 1 MeV	20 %	D.C. Stupegia et al. (3) measured between 150 keV and 2.5 MeV

No.	Nuclei	Energy Range	Accuracy	Remarks
204	Ti	1 keV - 200 keV	20 % 3 mb	Cross section above 60 keV is smaller than 6 mb and known by measurements of R.L. Macklin et al.(4) and B.C. Diven et al. (5).
216	V	1 keV - 150 keV	10 %	R.L. Macklin and J.H. Gibbons (6) measured in the energy range 100-200 keV with ≤ 10 % accuracy. Strong disagreements between different measurements in this energy range (see J.R. Stehn et al. (7)).
217 218	V	40 keV - 5 MeV	2,5 %	In this energy range σ is smaller than 10 mb. The required accuracy cannot be implemented with present methods.
224 225	Cr	1 keV - 200 keV	20 % 5 mb	No comment
226		30 keV - 150 keV	25 % 10 mb	Cross section is smaller than 10 mb in the whole energy region.
227		40 keV - 2 MeV	25 %	Cross section known up to 1 MeV (see (7)).
241 242	Mn	1 keV - 40 keV	20 % 5 mb	No comment
243 244 252 253		1 keV - 5 MeV	2,5 %	Cross section is smaller than 10 mb above 200 keV. Request seems to be no fulfil-able.

No.	Nuclei	Energy Range	Accuracy	Remarks
257 258 259	Fe	1 keV - 200 keV	10 %	Strong disagreements in the 10-100 keV energy range. R.C. Block (1) measured new data in the 0.1-200 keV range with 20 % accuracy. R.L. Macklin and J.H. Gibbons (6) measured between 125 and 182 keV with 25 % accuracy. M.C. Moxon (8) measured in the 1-100 keV range. The accuracy should be improved.
284	^{58}Fe	1 keV - 10 keV	20 %	No comment
289 290	Co	10 keV - 1 MeV	20 %	M.C. Moxon (8) measured between 1 keV - 50 keV
294 297 296	Ni	1 keV - 40 keV	20 % 5 mb	Fulfiled by S.V. Kapchigashev and Yu.P. Popov (9).
298 299		1 keV - 200 keV 40 keV - 1 MeV	10 % 16 % 2 mb	R.L. Macklin and J.H. Gibbons (6) measured at 125, 150 and 182 keV. R.C. Block (1) measured between 0.1 and 200 keV with 10-20 % accuracy. Between 200 keV and 1 MeV all values are in agreement within ± 2 mb (see (7)). Requests seems to be fulfiled.
324	Cu	above 1 MeV	20 %	No measurements

No.	Nuclei	Energy Range	Accuracy	Remarks
343	Y	1 keV - 1 MeV	15 %	H.A. Grench et al. (10) measured above 140 keV with 7 % accuracy. R.L. Macklin and J.H. Gibbons (6) measured between 70 keV and 220 keV D.C. Stupegia et al. (3) measured above 180 keV. W.P. Koroljowa et al (11) measured above 180 keV. There is good agreement between these data. Request fulfiled above 100 keV.
346	Zr	1 keV - 30 keV	20 % 5 mb	S.P. Kapchigashev (12) measured in this range with Slowing Down Spectrometer.
350 351 352 353 354	^{90}Zr ^{91}Zr ^{92}Zr ^{94}Zr ^{96}Zr	1 keV - 10 keV	10 % for Parameter	R.C. Block (1) will measure between 100 eV and 100 keV with 10-20 % accuracy.
355 356	Nb	1 keV - 2 MeV	25 % 10 mb	W.M. Lopez et al. (13) measured Nb-resonance parameters. D. Kompe (14) measured between 15 and 170 keV with an accuracy better than 20 %. R.L. Macklin and J.H. Gibbons (6) measured between 70-182 keV. Request partly fulfiled. (No values above 1 MeV).

No.	Nuclei	Energy Range	Accuracy	Remarks
370 371 372 373	Mo	1 keV - 10 MeV	10 % 2 mb	H. Weigmann (15) will measure between 300 eV - 20 keV with 10 % accuracy. D. Kompe (14) measured between 14 keV and 170 keV. The agreement with renormalized values in this region (W. Pönitz (18)) is very good. No values available at high energies (> 1 MeV).
387	Ru	1 keV - 150 keV	10 %	No comment
392	Rh	1 keV - 150 keV	10 %	M.C. Moxon (16) measured in the energy range 5 eV - 100 keV. S.A. Cox (17) measured between 140 keV and 1.7 MeV. R.L. Macklin and J.H. Gibbons (6) measured in the range 70 keV-182 keV. There is no agreement between the values of Cox and of Macklin.
420	Ba	10 keV - 100 keV	20 %	No values available
464 465 466	Hf	1 keV - 1 MeV	10 %	D. Kompe (14) measured in the energy range 14 - 170 keV with an accuracy < 20 %.
473 474 475	W	1 keV - 150 keV	20 %	R.C. Block (1) measured between 5 eV-10 keV. D. Kompe (14) measured between 15-170 keV. R.L. Macklin and J.H. Gibbons (6) measured between 125 and 220 keV.

No.	Nuclei	Energy Range	Accuracy	Remarks
				The values of Kompe and Macklin are in agreement with renormalized values of previously measured cross sections (W. Pönitz (18)) within 20 - 30 %. These requests seems to be fulfiled.
476	W	1 MeV - 2 MeV	25 %	No comment
484	Re	1 keV - 100 keV	20 %	D. Kompe (14) measured in the energy region 15 - 170 keV. D.C. Stupegia measured in the same range. The agreement is better than 20 %. The request seems to be fulfiled.
488 489 491	Au	1 keV - 3 MeV	5,2 %	W. Pönitz et al. (19) measured in the range 30 - 300 keV. The accuracy in the region 1 keV-3 MeV is about 5-10 % (W. Pönitz (20)).
492	Hg	1 keV - 1 MeV	20 %	No action known
496 497 498	Pb	1 keV - 100 keV	20 %	R.L. Macklin and J.H. Gibbons (6) measured between 30-157 keV.
506	Bi	1 keV - 30 keV	25 % 5 mb	No comment
518 519 520 521 522 523 524 525	Th	1 keV - 10 MeV	2, 5, 10 %	H.O. Menlove and W. Pönitz (20) prepare measurements at 30 keV and in the range 30 keV-300 keV (accuracy anticipated: 5 %)

No.	Nuclei	Energy Range	Accuracy	Remarks
693 694 695 696 697 698 699 700 701	^{238}U	1 keV - 10 MeV	1, 3, 5 %	H.O. Menlove and W. Pönitz (20) measured at 30 keV and prepare measurements in the range 30 keV-300 keV (accuracy anticipated: 5 %). M.C. Moxon (16) will measure in the energy range 1-100 keV with 5 % accuracy.

The following requests

532, 533, 534; 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559; 600, 601, 602, 603, 604; 622, 624, 625, 626, 627, 628, 629; 670, 671, 672, 673; 686, 687; 742, 743, 744, 745, 746, 747, 748; 800, 801, 802, 803, 804, 805, 806; 827; 840, 842, 843, 844, 845, 846, 847; 869, 870

concern n,γ-cross sections or α-measurements on radioactive fissile nuclei. The experimental effort in this region is very small and restricted in the energy range.

(1) R.C. Block et al., CN 23/126 (Paris Conf. 1966) and R.C. Block, privat com.

(2) I. Bergqvist, privat com.

(3) D.C. Stupegia et al., CN 23/51 (Paris Conf. 1966)

(4) R.L. Macklin et al., Phys. Rev. 129, 2695 (1963)

(5) B.C. Diven et al., Phys. Rev. 120, 556 (1960)

(6) R.L. Macklin and J.H. Gibbons, privat com.

(7) J.R. Stehn et al., BNL 325 + Supplements

(8) M.C. Moxon, P 88 (Antwerp Conf. 1965)

(9) S.V. Kapchigashev and Yu.P. Popov, Sov. J. Atomic Energy 15, 808, 1964

(10) H.A. Grench et al., Nucl. Phys. A 94, 157 (1967)

(11) W.P. Koroljowa et al., CN 23/103 (Paris Conf. 1966)

(12) S.P. Kapchigashev, Atomnaya Energiya 19, 294 (1965)

(13) W.M. Lopez et al., GA-7364 (1966)

(14) D. Kompe, CN 23/10 (Paris Conf. 1966)

(15) H. Weigmann, privat com.

(16) M.C. Moxon, privat com.

(17) S.A. Cox, privat com.

(18) W. Pönitz, CN 23/6 (Paris Conf. 1966)

(19) W. Pönitz et al., unpublished

(20) H.O. Menlove and W. Pönitz, unpublished