CJD Progress Report for NRDC2018 Technical Meeting (1-4 May, 2018, Bahadurgarh, India)

1. Staff

At present moment the number of CJD staff is 2: 1 leader scientist (20%) and 1 leading research engineer (20%).

2. EXFOR activity.

Trans	Status	Date	Entries	Entries	Entries	Subents	Subents	Subents
			total	new	revised	total	New	Revised
							in old+	Cor.+nosub
							in new	
4175	Final	30.06.2017	62	1	61	475	46+3=49	422+4=426
4176	Final	19.01.2018	84	1	83	377	19+11=30	345+2=347
1170	1 mai	17.01.2010	01	1	05	511	17+11-50	51512-517
4177	Final	19.03.2018	72	39	33	434	48+183=231	183+16=203
	<u>Final</u>		<u>218</u>	<u>41</u>	<u>177</u>	<u>1286</u>	<u>310</u>	<u>976</u>
4178	Prelim.	12.04.2018	133	0	133	1031	36	955+40=995
4179	Prelim.	19.04.2018	10	2	8	43	3+4=7	35+1=36
	<u>Prelim.</u>		<u>143</u>	<u>2</u>	<u>141</u>	<u>1074</u>	<u>45</u>	<u>1031</u>

EXFOR compilation statistics

3. NRDC2017 Actions.

CJD is responsible for NRDC2017 Actions:

A1 - Almost all articles registered (15.05.2017) in CoCoS were compiled (excluding articles of Conf.Proc.with figures, and 1 article without EN). At allocation site – 16 articles.

A2 – Corrections will be continued: very urgent 4(-2 in prelim.4179), urgent 8(-5 in prelim.4179), normal 143 - 20.04.2018 at the web-site.

A4 - No reply was sent (big article for EXFOR citation).

A16,25,27,30 - finished.

A39 - No reply was not sent (typos in Mughabghab's Atlas).

A43,44,45,46,47– finished (English translations for AE,YF,YK,JET,BAS)

A48 – finished (SPSDD)

- A55 finished (THICKNESS)
- A56 finished (HLs)
- A60 UNOBT (area4)

<u>1H(0),</u>

<u>160(0),</u>

<u>56Fe(0)</u>

<u>235U (</u>3Entries:

40995.006(smoothed curve, no error-bars, low size plot),

41525.002(prelim. smoothed curve, no error-bars, low size plot, Conf.).

In 40200.004 - add SPSDD,40200003), In 40930,41162 -delete UNOBT) <u>238U(0)</u> <u>239Pu</u>(1Entry :41525.003(prelim. smoothed curve, no error bars, low size curve, Conf.)

All suitable were digitized. Finished?

- A64 for All, but CJD is not responsible for CP data (CP-D/933).
- A70 memo 4c-4/216 was sent (year in vol.field)
- A71 finished (CP-D/789 -> 798rev, ETA)
- A86 No aliases were sent.
- A90,A93,A94 No feedback on GSYS, Editor, InpGraph, booklet was sent.

4. Journal YK.

The journal "Yadernye Konstanty" (YK) is continued to be published in IPPE as the online journal "Yadernye and Reaktornye Konstanty" ("Problems of Atomic Science and Technology. Series: Nuclear and Reactor Constants").

1997 – 2018 issues are available (in Russian, Abstracts in English) at web-site https://vant.ippe.ru/en/

Four regular issues were published during 2017 year and one issue has been published in 2018 year.

The article about the CJD history from 1963 to 2014 was published at <u>https://vant.ippe.ru/images/pdf/2017/2-11.pdf</u>

5. Nuclear data evaluation activity.

- The BROND-3.1 was transferred to NDS and OECD and is available

- at IPPE web-site https://vant.ippe.ru/en/brond-3-1.html ,

- at NEA DB web-site with the same reference;

- at NDS web-site https://www-nds.iaea.org/exfor/endf.html

The BROND-3.1 is described in the article:

Blokhin A.I.et all, "New version of neutron evaluated data library BROND-3.1"

J,YK,,(2),62,2016, see https://vant.ippe.ru/en/year2016/2/neutron-constants/1150-5.html

- Dosimetry reactions evaluated by K.Zolotarev at 2017:

	Reaction	Energy range, M ₃ B	Comment
1	$^{19}F(n,2n)^{18}F$	11.90 - 17.30	New evaluation
2	23 Na(n, γ) ²⁴ Na	0.0525 - 4.30	New evaluation
3	23 Na(n,2n) 22 Na	13.70 - 18.80	New evaluation
4	$^{24}Mg(n,p)^{24}Na$	6.50 - 11.60	
5	$^{27}Al(n,p)^{27}Mg$	3.50 - 9.40	
6	27 Al(n, α) ²⁴ Na	6.50 - 11.90	
7	$^{31}P(n,p)^{31}Si$	2.10 - 7.00	
8	$^{32}S(n,p)^{32}P$	2.30 - 7.40	

9	46^{46} Ti(n,2n) 45^{45} Ti	14.20 - 18.70
10	$^{46}\text{Ti}(n,p)^{46}\text{Sc}$	3.80 - 9.50
11	51 V(n, α) 48 Sc	7.40 - 13.80
12	54 Fe(n,2n) 53 Fe	11.90 - 17.30
13	54 Fe(n, α) 51 Cr	5.00 - 11.10
14	54 Fe(n,p) 54 Mn	2.40 - 7.70
15	56 Fe(n,p) 56 Mn	5.50 - 11.20
16	63 Cu(n, α) 60 Co	4.60 - 11.00
17	113 In(n,n') 113m In	1.20 - 5.90
18	115 In(n,n') 115m In	1.20 - 5.90
19	115 In(n, γ) 116m In	0.105 - 2.80
20	199 Hg(n,n') 199m Hg	1.30 - 6.50

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