

Technical Meeting on the International Network of Nuclear Reaction Data Centres, 2025

2024/25 Status Report of China Nuclear Data Center

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China Nuclear Data Center China Institute of Atomic Energy (CIAE)

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- 2. Status of CENDL and sub-libraries
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1. General Information of CNDC

China Nuclear Data Center (CNDC) was established in 1975 and joined the nuclear data activities of IAEA as the national nuclear data center of China since 1984. As a window, CNDC has been open to the world since 1978. and CNDC has established a good cooperative relationship with the IAEA, OECD/NEA, and major nuclear data centers and institutions in the world.

The main task of CNDC:

- \checkmark The management of domestic nuclear data activities.
- ✓ The nuclear data evaluations, libraries and relevant methodology studies.
- ✓ Nuclear data measurements and methodology studies
- ✓ The exchange of nuclear data activities with IAEA, foreign nuclear data centers and agencies.
- \checkmark The services for nuclear data application users.

Mainly tasks of CNDC in 2024/2025:

- ✓ New Five Years Plan (2021-2025) for nuclear data (CENDL Project).
- ✓ Data evaluation for next CENDL version and sub-libraries
- ✓ Methodological studies of nuclear data evaluation(incl. theoretical and experimental for fission process...).
- ✓ Nuclear data measurements and related methodological studies. (Mr.Ruan)
- ✓ The compilations for EXFOR





2. Status of CENDL and sub-libraries

No	Reaction	CENDL - 3.2(2020)	CENDL - 4.0 (~2025, in progress)
1	Photo - Nuclear Data (G)	0	266
2	Radioactive Decay Data (DECAY)	0	2354 (A = 66~172)
3	Activation Data	0	818
4	Incident - Neutron Data (N)	272	410 (in progress)
5	Fission Product Yields	0	40
6	Thermal Neutron Scattering Data (TSL)	0	~20
7	Incident - Proton Data (P)	0	78

The new version of CENDL will be completed by the end of 2025, where the neutron data will cover approximately 400 materials Sub-libraries will also be presented, including photonuclear, activation, decay, fission yield, TSL and proton data.,

3.1 Photonuclear Data file: (266 files)

- ✓ All of the photonuclear data are mainly evaluated based on the theoretical calculations with the Chinese photonuclear reaction codes GLUNF for the light 6 nuclei and MEND-G for the medium-heavy 264 nuclei with the standard ENDF-6 format.
- The incident photon energies for the medium-heavy nuclei are up to 200MeVand the n, p, d, t, He-3, α are considered to totally 18th particle emission reactions in the MEND-G code. Moreover, the new measurements.
- ✓ To ensure the availability and reliability of the PD file, nuclear data processing code system NJOY2016 and MCNP6 are used to verify and validate the PD library. The testing results show that the data structure of each nuclide is complete, the data content is reasonable, and can be applied to the simulation of Monte Carlo transport.



Туре	Nuclides	
Light	Be-9,B-10,11,C-12,N-14,O-16	6
Medium- heavy elements	$\begin{split} & Mg-25,26,AI-27,Si-28,29,30,P-31,S-32,33,34,36,CI-35,37,\\ & Ar-36,38,40,K-39,40,41,Ca-40,42,43,44,46,Sc-45,Ti-46~50,V-50,51,Cr-50,52~54,Mn-55,Fe-54~58,Co-59,Ni-58,60,61,62,64,Cu-63,65,Zn-64,66,67,68,70,Ga-69,71,Ge-70,72,73,74,76,As-75,Se-74,76,77,78,80,82,Br-79,81,Kr-78,80,82,83,84,86,Rb-85,87,\\ & Sr-84,86,87,88,Y-89,Zr-90,91,92,94,96,Nb-93,Mo-100,92,94~98,\\ & Ru-100,101,102,104,96,98,99,Rh-103,Pd-102,104,105,106,108,110,Ag-107,109,Cd-106,108,110~114,116,In-113,115,\\ & Sn-112,114~120,122,124,Sb-121,123,\\ & Te-120,122,123,125,126,128,130,I-127,Xe-124,126,128-132,134,136,Cs-133,Ba-130,132,134-138,La-138,139,Ce-136,138,140,142,Pr-141,\\ & Nd-142-146,148,150,Sm-144,147-50,152,154,Eu-151,153,\\ & Gd-152,154-158,160,Tb-159,Dy-156,158,160-164,Ho-165,\\ & Er-162,164,166-168,170,Tm-169,Yb-168,170-174,176,Lu-175,176,\\ & Hf-174,176-180,Ta-180,181,W-180,182-184,186,Re-185,187,\\ & Os-184,186-190,Ir-191,193,Pt-190,192,194-196,198,Au-197,\\ & Hg-196,198,199-202,204,TI-203,205,Pb-204,206-208,Bi-209 \end{split}$	258



3.2 Decay Data File: CENDL/DDL

- ✓ The CENDL-DDL included 2350 nuclei between A=66 to A=172 FY region. ENSDF and ENDF format were adopted. Evaluations taken from :
 (1) CNDC(& Jilin Univ.): ~500 nuclei; (2) DDEP: ~200 nuclei; (3) ENSDF: ~1500 nuclei; (4) JEFF-3.2: ~150 nuclei (only for stable nuclei);
- ✓ The Q-values of the decay modes are updated to the Atomic Mass Evaluation (AME) released in 2021Wa16
- ✓ J π for g.s.(Jilin Univ.): by systematical comparison, physical analysis and theoretical calculation, spin for ground states is re-assigned for which lackes measurement or questionable
- ✓ All T1/2 are revised by new measurements (2021.12).
- Mean energies for β & γ : from TAGS measurements when available, otherwise from theoretical calculation. For even-even nuclides, from theoretically analysis which employed the self-consistent quasiparticle random phase approximation (QRPA) approach based on covariant density functional theory (CDFT) in Jilin University.

8

Beta-delayed n, p, α emitted are adopted: P1n, P2n from eva. of 2015Bi05, 2020Li32; P1p,P1α from eva. of 2020Ba07 when measurements available. Otherwise from systematics or theoretical calculation.

3.3 Neutron Activation File: CENDL-NAF

✓ The CENDL-NAF included 818 nuclei (¹H to ²⁵⁷Fm), the neutron energy is upto to 20 MeV.
 ✓ The ENDF/B-6 format was adopted with 11 file types.

✓ Evaluations were obtained by using APMN, Unified H-F and Exciton model (UNF series), Full and Diagonal Reduced R-matrix (FDRR) model calculations or systematic analysis based on available experimental data.

 \checkmark When there have many experimental data for a reaction channel, the evaluated experimental data were selected for curve fitting using orthogonal polynomial fit or spline function fit from threshold to 20 MeV. And the fitting results were adopted.

✓ For convenient used in applications, all resonance parameters are already converted into a linearised point-wise format, and properly connected at the boundary energy. To calculate the point-wise cross section, The ENDF/B Preprocessing codes (PREPRO) were used.

MT	File types
102	(n,γ) reaction
16	(n,2n) reaction
17	(n,3n) reaction
18	(n,f) reaction
103	(n,p) reaction
107	(n,α) reaction
105	(n,t) reaction
106	(n, ³ He) reaction
104	(n,d) reaction
28	(n,n'p) reaction
22	$(n,n'\alpha)$ reaction



3.4 Neutron Data

Some important nuclides were evaluated or updated, here listed 17 isotopes: H-2, F-19, Fe-54,56,57, Cr-50,52,53,54, U-238, Cl-36, P-32,33, S-35, Ga-69,71, Ti-48





Here are for the unstable nuclei ³⁶Cl, ³²P(Phosphorus), ³³P, and ³⁵S(萨尔佛). These isotopes are of importance in reactor physics, yet lack experimental data. The evaluated results show good agreement with data from other nuclear reaction libraries.

n+⁶⁹Ga Cross Section



¹²12

The evaluations for the n+Gallium-69 reactions, including 7 reaction chanels, (n,t), (n,el), (n,inl), (n,2n), (n,p), (n, α), and (n, γ) reactions, with angular distribution and double differential cross section (DDCS).

• Evaluation for n+⁷¹Ga



¹⁸13

3.4 Fission yield Data file: CENDL-FPY

The FPY sub-library will cover about 40 fission systems, where the 233U, 235U, 238U and 239Pu, 241Pu fission yields were newly evaluated. Others were based on the data from ENDF and JEFF libraries and adjusted with decay data of CENDL-DDL.



PAGE:14/15

3.6 Evaluation for thermal scattering law

	No.	Materials	Elastic scattering	scattering
For the thermal scattering	1	Ве		Stattering
law, more than 20	2	graphite		
materials have been	3	SiC		
evaluated using NECP-	4	UO ₂		
Atlas at ViAn Jiaotong	5	α-SiO ₂		
Atlas at AIAII Jiaotolig	6	BeO	ADPs method for coherent	
Uni.	7	ZrC	elastic scattering	One-phonon
A module, named sab_calc,	8	UN		correction
was developed for	9	α -Al ₂ O ₃		method
	10	MgO		
evaluation of TSL.	11	Fe		
This table showes some of	12	Al		
the materials which has	13	δ-YH ₂	H incoherent elastic scattering;	
heen completed	14	ε-ZrH ₂	ADPs method for the coherent	
been completed.	15	δ-ZrH _{1.5}	elastic scattering of Y and Zr	
	16	H₂O		Quantum
	17	D ₂ O	No elastic scattering	Quantum
	18	Liquid FLiBe		conection
				15



The thermal scattering cross sections obtained show good agreement with the experimental results.



Total cross sections of graphite at 296 K

Total cross section of H_2O at 293.6 K

16

16

Here are 2 cases of graphite and H_2O which thermal scattering cross - sections, showing good agreement with the experimental results.



Fundamental theory study for FPY



The corresponding basis

The physical concept behind this approach : For nearly spherical configurations, the solution obtained using the harmonic oscillator basis.

As the deformation increases, gradually forms two fragments, and two-center structure basis match the density change.

We've studied on Fission Product Yields (FPY) with Covariant Density Functional Theory (CDFT) based on two-center harmonic oscillator basis (TCHO)



17







18

18

the time evolution of **total flux** that passes through the scission line: asymmetric fission valley and symmetric fission valley

The TCHO calculation presents a trend to improve the description: the asymmetric fission peak decreases of the charge dist.

We simulate the photo-induced fission of 226Th (Thorium). And The TCHO calculation presents a trend to improve of the description of the asymmetric fission peak.



Evaluation method study for γ+Nd absorption cs

The excitation energies and transition probabilities obtained using Quasiparticle Finite Amplitude Method (Tiny Smearing Approximation) are both consistent with those from QRPA.



The photon-absorption cross-section calculated by QFAM calculations with arbitrary γ values can be effectively fitted with the Tiny Smearing Approximation.



It is investigated for the photon absorption cross-sections of even-even nuclei within the Nd isotope chain. By fitting energy-dependent widths, the deviation between the original QFAM results and experimental values was reduced significantly by an order of magnitude;



Remarks

- New evaluations were performed for the photo reaction, neutron and fission yiled data.
- Mehtodologies were studied for FPY and gamma absorption crosssections of Nd istopes.
- With the upcoming release of CENDL 4.0 in 2025, we expect to provide more accurate and comprehensive nuclear data .

Next: EXFOR Activities at CNDC





CNDC X4 Team

- Compilation: Jimin Wang, Xi Tao, Lile Liu, Yangyang Liu, Yang Su, and new staffs
- Software development: Yongli Jin
- Steering Committee: Nengchuan Shu, Zhigang Ge

Responsibility

- Compilation of nuclear reaction data induced by neutron and charged particle measured in China under the guidance of IAEA/NDS.
- **Revision** of the entries with issues in EXFOR compiled at CNDC.
- Scanning of journals published in China.
- Software development for digitization and evaluation.



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Compilation

- Since the last NRDC meeting, 38 new entries were finalized, 33 neutron data entries of which are contained in 4 final TRANS tapes 3213, 3214, 3215 and 3217, 2 charged particle data entries of which are contained in final TRANS S034.
- The 3213, 3214, 3215 and 3217 have been transmitted by NDS, and S034 has been transmitted by CNDC.
- Three entries 32890, 32914 and 32916 are in waiting for the data.

No.	Entry No.	1st author	Reference	Status
1	32911	Jieming Xue	J,CPH/C,47,124001,2023	Trans.3213
2	32912	Jie-Ming Xue	J,CNST,35,18,2024	Trans.3213
3	32853	Zengqi Cui	J,CPH/C,45,064001,2021	Trans.3214
4	32894	Yijia Qiu	J,PR/C,107,024606,2023	Trans.3214
5	32899	S. Zhang	J,PR/C,107,045809,2023	Trans.3214
6	32910	Yujie Ge	J,ARI,200,110907,2023	Trans.3214
7	32913	Xin-Xiang Li	J,CPH/B,31,038204,2022	Trans.3214
8	32915	Yonghao Chen	J,EPJ/CS,284,01013,2023	Trans.3214
9	32918	Jincheng Wang	J,EPJ/A,59,224,2023	Trans.3214
10	32919	Haofan Bai	J,NIM/A,1058,168912,2024	Trans.3214
11	32920	Luo Hao-Tian	J,ASI,73,072801,2024	Trans.3214
12	32921	LIU Longxiang	J,CNPR,41,371,2024	Trans.3214
13	32922	L. Gan	J,PR/C,110,025802,2024	Trans.3214
14	32807	Xing-Yan Liu	J,CNST,30,139,2019	Trans.3215
15	32852	Xingyan Liu	J,EPJ/A,57,232,2021	Trans.3215
16	32867	B. Liu	J,ARI,184,110209,2022	Trans.3215
17	32871	Junhua Luo	J,CPH/C,46,044001,2022	Trans.3215
18	32872	Xianlin Yang	J,RPC,197,110192,2022	Trans.3215
19	32874	Yong Li	J,CPH/C,46,054003,2022	Trans.3215
20	32879	LIU Chao	J,CST,56,798,2022	Trans.3215
21	32884	B. Liu	J,ARI,191,110557,2023	Trans.3215
22	32892	JunZeng	J,NP/A,1030,122569,2023	Trans.3215
23	32893	X. Tang	J,ARI,193,110636,2023	Trans.3215
24	32895	Jun-Hua Luo	J,CNST,34,4,2023	Trans.3215
25	32896	Chun Wen	J,CPH/C,47,024002,2023	Trans.3215
26	32898	Junhua Luo	J,RPC,206,110759,2023	Trans.3215
27	32900	Long He	J,CPH/C,47,034001,2023	Trans.3215
28	32901	Jie Liu	J,PL/B,842,137985,2023	Trans.3215
29	32897	Xianlin Yang	J,CPH/C,47,024001,2023	Trans.3217
30	32903	Jie Liu	J,JP/G,50,045106,2023	Trans.3217
31	32905	Fengqun Zhou	J,RPC,211,111049,2023	Trans.3217
32	32906	Si-xi Ren	J,HFH,45,216,2023	Trans.3217
33	32907	Yu Gongshuo	J,CST,57,1066,2023	Trans.3217
34	S0312	Cheng Hao	J,CST,57,1,2023	Trans.S034
35	S0253	Wang Dongxi	J,CNPR,34,534,2017	Trans.S034

* The EXFOR-Editor software developed by CNPD is our compiling and checking tool.

中国核数据中心 China Nuclear Data Center



Compilation

• Since the first charged particle data entry S0001 was compiled at CNDC in 1985, there are more than 540 entries compiled at CNDC in the EXFOR Library.



中国核数据中心 China Nuclear Data Center

Revision

- Since the last NRDC meeting, 15 subentries were revised,
- 6 neutron data entries of which are contained in final TRANS 3217,
- 9 charged particle data entries of which are contained in final TRANS S034 and D145.

Entry No.	Comments	Reviser	Status
32660.002	REACTION : 92-U-238 -> 92-U-235	Wang Jimin	3217
32660.003	REACTION : 92-U-238 -> 92-U-235	Wang Jimin	3217
32751.001	Coded DOI: 10.1140/epja/ -> 10.1140/epja/i2016-16345-1	Wang Jimin	3217
32762.001	CORRECTION: Open paren of free text at col.12	Wang Jimin	3217
32782.001	CORRECTION: Open paren of free text at col.12	Wang Jimin	3217
32910.001	CORRECTION: Open paren of free text at col.12	Wang Jimin	3217
S0012.004	STATUS: Add "(SPSDD,S0012007) final metastable state production cross section" and "(SPSDD,S0012008) final ground state production cross section". 004 is not equal to 007+008.	Wang Jimin	S034
S0040.002	REACTION : Add DERIV in SF9. Corrected with isomeric ratio measured by P0012.	Wang Jimin	S034
S0047.001	REFERENCE : add J,CNPR,22,20,2005	Wang Jimin	S034
S0063.001	SAMPLE: Open paren of free text at col.12	Wang Jimin	S034
S0068.001	DETECTOR: "A" should not be at col.11 in free text "Angular resolution (2.06 deg)"	Wang Jimin	S034
S0102.001	COMMENT: Open paren of free text at col.12	Wang Jimin	S034
S0169.001	REFERENCE: PHE: year: 1983 -> 1995, and STATUS	Wang Jimin	S034
S0230.001	REFERENCE: add J,AJ,945,41,2023	Wang Jimin	S034
D0552.001	REFERENCE: add J,CNPR,22,248,2005	Wang Jimin	D145

Scanning of journals

- Currently, CNDC is responsible for scanning of 8 journals of China, namely ASI, CNPR, CNST, CPH/C, CPL, CST, HFH and NTC. The ASI is semimonthly, the HFH is bimonthly, the CNPR is quarterly and others are monthly.
- The scanning results are sent to NDS every month. 27 articles published in 2024 were registered in X4CoCoS by N.Otsuka.



Journal	Vol.	Issue	Published	Page	1st author
LACI	72	7	2024/4/5	072801	Luo Hao-Tian
J,ASI	/3	14	2024/7/20	142501	Liu Chao
LCNDD	41	1	2024/3/20	371	LIU Longxiang
J,CNPK	41	4	2024/12/20	936	ZHANG Yuqiang
		2	2024/2/1	18	Jie-Ming Xue
J,CNST	25	6	2024/6/1	94	Xian-Lin Yang
	33	8	2024/8/1	143	Yin-Ji Chen
		11	2024/11/1	208	Wei-Ke Nan
		1	2024/1/15	014001	B. A. Urazbekov
				024001	Akash Hingu
		2	2024/2/15	024002	F.A. Rasulova
				024104	J. H. Khushvaktov
		2	2024/2/15	034001	Guo Yang
		3	2024/3/15	034003	D. N. Grozdanov
		5	2024/5/15	054104	Yueli Song
		6	2024/6/15	064002	R.S. Mukhin
J,CPH/C	48	7	2024/7/15	074001	G. L. Zhang
		8	2024/8/15	084001	Jiangbo Bai
		0	2024/0/15	094001	Xuedou Su
		9	2024/9/15	094104	Mahesh Choudhary
		10	2024/10/15	104001	Haofan Bai
		10	2024/10/15	104002	Baoqian Li
		11	2024/11/15	114002	F.A.Rasulova
			2024/11/13	114101	A.K.Azhibekov
		12	2024/12/15	124001	Junhua Luo
LCGT	50	11	2024/11/20	2255	HUANG Zhijie
J,CST	28		2024/11/20	2262	WANG Xiaoyu



Software development

 NDPlot: a program designed to facilitate the visualization and manipulation of nuclear data, developed by Dr. Yongli Jin (CNDC). The latest version 0.9.8.9 was released in May 2025.
 Some new features were introduced, such as data filtering based on method, source, detector, etc., built-in photonuclear reaction data, and so on.

	Choice	Author	Subentry	Method	Source	Detector	Monitor	* 1 Um	itled		and the second se							0 0 0
1	0	Ergashev(2021)31847004,	31847004	TRN		SI			PROTON PARACE	SON CRIMES	SWC100412							
2	0	Atchison(2009)23102002,	23102002	TRN, TOF	SPALL								Photos Acaction CTo	ss sections				
3	0	Rohr(1994)22331004,	22331004	TOF	BRST	SCIN			Z or Elen	nent:	20 3	£.	50 0.30(0-0	round M'N-Excited)	G v			
4	0	Finlay(1993)13569008,	13569008	TOF	SPALL	SCIN			MT				(Comma or semicolon	separation for multi MTs)				
5	0	Abfalterer(1993)14184002,	14184002	TRN	SPALL				-		Test to an a second		MTr for ME-1 in Fara	Libe	1000	0.000		
6	0	Morales(1991)30764004,	30764004	TRN;TOF	D-T	SCIN			Eva. Lib	HC	bnow MIs from	evalab	ALL IN ALL - JE LVA.		Produ	ets in MF3 2	MIS:	
7	0	Koester(1990)22217010,	22217010	FNB	REAC	BF3			choi	ice	Evaluation Lib	id	TEN01-2023	:HT-3(g,abs)		Choi	CI PZA	Reaction
8	0	Franz(1988)22117005,	22117005	TOF	P-BE	MAGSP;SCIN;MWPC;TELI	E 1-H-1(N,EL)1-H-1,,DA						TENDL-2023 ENDF/BUILL.1	:HT=5(g,anything) :HT=5(g,anything)		1 0	0 0	Fe-56(a.xa)
9	0	Ohkubo(1987)21926003,	21926003	TOF,TRN	PHOTO	GLASD			1 0	CENT	DL-PD-Beta		CENDL-PD-Beta	:HT-5(g,anything)		2 0	1 0	Fe-56(g.xn)
10	0	Ohkubo(1987)21926004,	21926004	TOF, TRN	PHOTO	GLASD		_	2 0	ENDF	BVIII.1		CENDL-PD-Beta CENDL-PD-Beta	:HT=201(g,xn) :HT=203(g,xp)		3	1001 0	Fe-56(g,xp)
1	lo l	Larson(1980)12882005,	12882005	TOF	PHOTO	SCIN		tion	10	JEND	1.5		CENDL-PD-Beta	:HT-284(g,xd)	1.1	4 🖸	1002 0	Fe-56(g,xd)
2	0	Koester(1979)21660015,	21660015	CHRFL	REAC			1 Dec			4 3633		CENOL-PD-Beta	:HT-205(g,xt) :HT-206(g,xhe-3)	- 78	s 0	1003 0	Fe-56(g.xt)
13	0	Royer(1977)12661004,	12661004		REAC	PROPC		1 3	4 0	TENL	12-2023		CENDL-PD-Beta	:HT=207(g,xhe-4)		• •	2003 0	Fe-50(g,xHe3)
4	Ō	Waymire(1976)20671002.	20671002		D-D	SOLST		2	5 🔾	IAEA	-PD2019		JENOL-5	:HT=5(g,anything) :HT=5(g,anything)		. 0	14026.0	Fe-50(g,xa) Fe-56(e,x)14-51-26-(Vx=18n-
15	0	Singh(1975)10515004,	10515004	TOF	EVAP	SCIN:NAICR		V								. 0	14027 0	Fe-56(gx)14-SI-27-0(x=17n+
16	I.	Ortega(1975)30378006,	30378006	TRN	D-T	HORBU:LONGC									1	0 0	14028 0	Fe-56(g,x)14-SI-28-0(x=16n+
17	0	Schwartz(1974)10004002,	10004002	TOF	EVAP	SCIN									1	11	14029 0	Fe-56(g,x)14-51-29-0(x=15n+1
															23	12 🛛	14030 0	Fe-56(g,x)14-SI-30-0(x=14n+1
elect all															+ 1	u ()	14031 0	Fe-56(g,x)14-51-31-0(x=13n+1
such a	activitof)	D-T TOF		Add											F			
																dd PENDF	File	Inverse
				Pamara					1.20002.001	t and the balance				Source In The State	The second			

EXFOR data filtering

Photonuclear reaction data



¹²C(n, n+3α) and energy region lie Liu⁴, Zenggi Cui^{4,8},

e Ren^{il} Honetan (

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Date:	14 March 2025
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Subject:	Dictionary 3 (Institute codes) – 3CPRCNI

Regarding the expansion of 3CPRCNI, the China Nuclear Information Centre, Beijing, was absorbed into the China Institute of Nuclear Information & Economics in 2002. Then the China Institute of Nuclear Information & Economics was absorbed into the China Institute of Nuclear Industry Strategy, Beijing, in 2019. The current one appeared in new publications [1-2], so we propose the following change of the expansion for the Chinese institute code:

Dictionary 3 (Institute codes)

3CPRCNI China Institute of Nuclear Industry Strategy, Beijing

Jie Liu et al., Physics Letters B 842(2023)137985. (EXFOR 32901)
 Jie Liu et al., J. Phys. G: Nucl. Part. Phys. 50 (2023) 045106. (EXFOR 32903)

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		Science from 11			
		J. Phys. G. Nuzi. Part. Phys. 50 ((2025)-046106 (16pp)	Journal of Physics G: Nuclear at https://doi.org/10.1068/1	nd Particle Physics 1361-6471/actiR0
		⁶³ Cu(<i>n</i> , α) ⁶⁰	Co cross sec	tions in the	MeV
		region			
		Jie Liu ¹ , Xichao F Yu M Gi L Krupa F	, Zengqi Cul ^{1,2} , Yiwei Ruan ³ , Cong Xia ¹ , Jinu edenov ⁴ , E Sansarba ^{6,7} , I Chuprakov ^{4,6}	i Hu ¹ , Haofan Bai ¹ , Y xiang Chen ¹ , Guohui yar ⁴⁵ , G Khuukhenk ⁹ , Hanxiong Huang Vigeorium Yang	/i Yang ³ , Zhang ^{1,4} huu ⁵ , ³ , Jie Ren ³ ,
Physica Lanama B. 662 (2022) 147560		* State Key	Laboratory of Nuclear Physic	cs and Technology, Institute	of Heavy Ion.
Contents lists available at ScienceDirect	Terrane .	Physics, Sci China	hool of Physics, Peking Unive	ensity, Beijing 100871, Peop	le's Republic of
Physics Letters B		Republic of Key Labo	China ratory of Nuclear Data, China	Institute of Atomic Energy,	Beijing 102413
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³ , Haofan Bai ³ , Zhenpeng Chen ⁴ , Con Juohui Zhang ^{3,4} , Xichao Ruan ⁴ , Hanxi	g Xia ³ , long Huang ⁴ ,	Prague, Hor [#] L. N. Gur [#] The Instit Almaty 050	rska 3a/22, Prague 2 12800, 0 milyov Earasian National Uni ute of Nuclear Physics, Minist 002, Kamkhsta	Crech Republic versity, Nur-sultan 010000, try of Energy of the Republic	Kazakhstan : of Kazakhstan
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Charles Streamber	Commission of the second se	" Author to whom any correspondence	ordence should be addressed.		
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tions exist among the	e results of different measurements with large				

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Feedback from users

Feedback list (Last updated: 2025-06-04)

Entry #	From	Keyword	Comment	Reference	Registered
<u>14556.001</u>	J.M.Wang	INSTITUTE	3CPRSHN -> 3CPRCPR (Xi'an Jiaotong University, Xi'an, Shaanxi)	N/A	2025-03-11
<u>14461.022</u>	J.M.Wang	STATUS	Fig.9 -> Fig.10	N/A	2025-03-11
<u>14461.009</u>	J.M.Wang	STATUS	Fig.5 -> Fig.6	N/A	2025-03-11
<u>14461.008</u>	J.M.Wang	STATUS	Fig.5 -> Fig.6	N/A	2025-03-11
22892.023	X.Tao	Data	ERR-T, MONIT and MONIT-ERR values are wrong (c.f. p.187 of INDC(GER)-0053).	N/A	2024-12-11
22892.022	X.Tao	Data	ERR-T, MONIT and MONIT-ERR values are wrong (c.f. p.186 of INDC(GER)-0053).	N/A	2024-12-11
33030.001	H.Lu	DECAY-DATA	132Te: Use (52-TE-132,78.2HR,DG,228.26,0.882) (c.f. Table 1)	N/A	2024-10-16
21554.001	H.Lu	MONITOR	SF5: IND -> CUM	N/A	2024-10-16
<u>10828.001</u>	H.Lu	ERR-ANALYS	Definitions of DATA-ERR1 and DATA-ERR2 must be swapped.	N/A	2024-10-16
20463.002	J.M.Wang	Data	DATA-ERR: E-01 -> E-02 at the second point at 7.E-04 MeV.	N/A	2024-06-13
<u>31858.005</u>	J.M.Wang	REACTION	SF4: Add -M.	N/A	2024-06-07

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Visits and Cooperation

- Nengchuan SHU and Jimin WANG visited IAEA from 14 to 17 May 2024 to attend the NRDC 2024 meeting.
- Yongli JIN, Xi TAO and Jimin WANG visited IAEA from 2 to 13 December 2024 to attend the Workshop 2024 meeting and Consultancy meeting.



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Visits and Cooperation

• Naohiko OTSUKA visited China from 9 to 22 October 2024 to discuss finalization of EXFOR entries compiling data measured in China and introduce EXFOR and its application.

Thank you for your attention ! Comments and suggestion welcome ! E P