

## RIKEN Nuclear Data Group

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on Network of Nuclear Reaction Data Centers  
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First of all, to our regret, we have to inform you all the member of NRDC network that our RIKEN Nuclear Data Group cannot be helped to discontinue its main activities as a group from this fiscal year (from April) on. Our group belongs to the Radiation Laboratory in RIKEN. Since last year the Radiation Laboratory had been receiving a review on its activities and organization on the occasion of the retirement of the laboratory head. As a conclusion, our Nuclear Data Group could not keep up adequate budget and manpower. We think we cannot be helped to withdraw from the membership of NRDC network. It is a great pleasure for us we could do a little contribution to the enrichment of the EXFOR database for this long term. We would like to express our great thanks to many people in IAEA NDS and all of the NRDC members for their constant support and encouragement.

RIKEN Nuclear Data Group has joined the NRDC network in 1983 in charge of collecting and compiling the charged particle nuclear reaction cross section data. In the first place, we limited our objectives to the production cross sections for twenty typical radioisotopes of medical use:  $^{11}\text{C}$ ,  $^{13}\text{N}$ ,  $^{15}\text{O}$ ,  $^{18}\text{F}$ ,  $^{28}\text{Mg}$ ,  $^{52}\text{Fe}$ ,  $^{67}\text{Ga}$ ,  $^{68}\text{Ge}$ ,  $^{74}\text{As}$ ,  $^{77}\text{Br}$ ,  $^{82}\text{Br}$ ,  $^{77}\text{Kr}$ ,  $^{81}\text{Rb}$ ,  $^{82\text{m}}\text{Rb}$ ,  $^{111}\text{In}$ ,  $^{123}\text{Xe}$ ,  $^{127}\text{Xe}$ ,  $^{123}\text{I}$ ,  $^{124}\text{I}$ , and  $^{125}\text{I}$ . Afterwards, we have a little widened the scope of collection to other important nuclides left off the EXFOR master file. Since our first TRANS had been transmitted in 1984, we have continued to compile EXFOR entries R001 through R053 containing a total of 479 subentries as shown in Table 1.

We also have continued the mass-chain evaluation and compilation of ENSDF for a long term. A part of this work (A = 129 evaluation) will be continued personally from this time on.

NSR compilation of Japanese secondary sources will also be continued only for this fiscal year.

Compilation of 1999 secondary sources published in Japan has been carried out last year. A total of 97 works from seven Annual Reports has been compiled into NSR files and will be sent to the NNDC.

RIKEN Accelerator Progress Report 1998	32 (reports)
JAERI-TANDEM, & V.D.C. Annual Report 1998	18
JAERI-TIARA Annual Report 1998	2
RCNP Annual Report (Osaka Univ.) 1998	18
OULNS Annual Report (Osaka Univ.) 1998	16
UTTAC Annual Report (Univ. Tsukuba) 1998	5
CYRIC Annual Report (Tohoku Univ.) 1998	6

Table 1

Entry Number	Subentries	Comment
R001	16	Mass dependence of production $\sigma$ for Xe isotopes
R002	2	Excitation func.for I-123
R003	2	Yield for Xe-123
R004	5	Excitation func.for ( $\alpha$ , n), ( $\alpha$ , 2n) reactions
R005	5	Production $\sigma$ for Xe isotopes
R006	2	Yield for I-123
R007	5	Yield curves for I-121,123,125 production
R008	2	Yield for I-123
R009	4	Yield curves for Cs-123, Xe-123, I-123
R010	2	Excitation func.for C-11
R011	10	$\sigma(\theta)$ for C-12(He-3, $\alpha$ )C-11
R012	24	$\sigma(\theta)$ for C-12(p, d)C-11
R013	20	$\sigma(\theta)$ for N-14 levels
R014	24	$\sigma(\theta)$ for C-11,12, Mg-23,24, Si-27,28, Ca-39,40, Cr-49,50 levels
R015	47	$\sigma(\theta)$ for (He-3, $\alpha$ ) reactions
R016	15	$\sigma(\theta)$ for (He-3, $\alpha$ ) reactions
R017	4	Relative yields for Be-7, B-10 production
R018	3	Excitation func.for C-11, Be-7
R019	37	$\sigma(\theta)$ for B-11, C-11,13, N-13,15, O-15,16,17, F-17 levels
R020	17	$\sigma(\theta)$ for (p,d) reaction residuals C-11, N-13, O-15, Ca-39, Zr-89 levels
R021	14	Excitation func.for C-11, O-15, Si-27, Ni-57
R022	10	$\sigma(\theta)$ for (He-3, d), (He-3, $\alpha$ ) reactions
R023	4	Excitation func.for F-18 production
R024	3	Excitation func.and yields for I-123
R025	11	Excitation func.for C-11, Be-7, Li-6
R026	3	Excitation func.for C11
R027	2	Yields for N-13
R028	22	$\sigma(\theta)$ for O-15 levels through ( $\alpha$ , n) reaction
R029	5	Excitation func.for Rb-81, Kr-81m
R030	3	Yields for Br-76,77
R031	2	Yields for Rb-81g, m production
R032	4	Yields for Br-75,77 production
R033	9	Yields for Br-75,77 production
R034	5	Yields for Ge-68,69, Zn-65, Co-57 production
R035	void	Deleted
R036	10	Excitation func.for As-71,72,73,74, Ge-68,69, Ga-66,67, Zn-65
R037	9	Excitation func.for Ge-66,67,68, Ga-66,67
R038	9	Excitation func.and yields for Cl-38, Cu-61,64,67, Ga-66
R039	13	Excitation func.for Ga-65,66,67,68, In-109,110,111, Cd-109
R040	3	Relative yields for Ga-66,67 production
R041	14	Excitation func.for Zn-64(He-3, X) reactions
R042	9	Excitation func.for (d, p), (d, 2n) reactions
R043	2	Excitation func.and absolute $\sigma$ for O-16(p, $\alpha$ )N-13 reaction
R044	4	Excitation func.for B-10, O-16, F-19(He-3, X) reactions
R045	7	Excitation func.for Ca-40,42,43,48(d, X) reactions
R046	2	Excitation func.for As-75(d, X) reactions
R047	2	Excitation func.for Zn-68(p, 2p) reaction
R048	5	Excitation func.for Mo-92,100( $\alpha$ , p), ( $\alpha$ , n) reactions
R049	5	Excitation func.for Cd-116( $\alpha$ , X), (He-3, X) reactions
R050	4	Excitation func.for Au-197(d, xnyp) reactions
R051	void	Deleted
R052	10	Excitation func.for Ho-165, Er-164,167( $\alpha$ , X) reactions
R053	28	Excitation func.for (he-3, X), ( $\alpha$ , X) reactions
Total	479	