

Progress Report of
NUCLEAR REACTION DATA GROUP at ATOMKI
2017

(S. Takács)

NRDC Meeting, May 23 – 26, Vienna, Austria

Nuclear Data Group at ATOMKI

- **Measurements of new activation cross section data (p, d, ^3He , α ,) Collaboration, Belgium, Japan, Russia**
- **Evaluation of reported experimental data**
- **EXFOR compilation**
- **Use the cross section data in different applications**

Experimental work

- Systematic investigations of excitation functions
- Charged particle induced nuclear reactions
- Isotope production
- Optimizing production of radioisotopes for use in diagnostic and radiotherapy treatments
- Thin Layer Applications
- Other tracer experiments

Publications in 2016-2017

Number of publications: 37

EXFOR compilation in 2017

Our responsibility to compile experimental data of charged particle induced nuclear reactions reported from ATOMKI Debrecen and VUB Brussels,

Number of new entries:	13
Number of corrected entries	2
Number of subentries with new data:	143
Number of data lines:	2540

Review of REACTION codes for thick target (TTY) radioisotope yields

All EXFOR entries compiling charged particle experimental thick target radioisotope yields TTY were revised and corrections were proposed.

The checked number of entries and REACTION codes sorted by area code and responsible centres

REACTION lines checked 2204 in 342 articles.
Changes were made in 1213 lines.

Area	Responsible centre	# of entries for revisions	# of REACTION codes checked
A	CNPD	67	932
B	NDS	23	83
C	NNDC	29	119
D0	NDS	65	313
D4	ATOMKI	41	164
D6	NDPCI	6	20
D7	KNDC	3	35
E	JCPRG	22	179
F	CNPD	11	59
M	CDFE	4	9
O	NEA DB	54	231
R	JCPRG	12	52
S	CNDC	2	4
T	NNDC	3	4
Sum		342	2204

Participations in CRPs

- Nuclear Data for Charged-particle Monitor Reactions and Medical Isotope Production (2012–2016)
- Therapeutic Radiopharmaceuticals Labeled with New Emerging Radionuclides (^{67}Cu , ^{186}Re , ^{47}Sc), (2016-2019)

Thank you