INSTITUTE OF NUCLEAR PHYSICS

Compilation of experimental nuclear reaction data measured in Central Asia region

T. Zholdybayev, M. Nassurlla, N. Otuka

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Information about our group

Compilation activity started in 2013

MEMBERS:
T. Zholdybayev
M. Nassurlla:

USING SOSTWARES (thanks to JCPRG):
HENDEL
GSYS

Cumulative number of EXFOR entries created from the experiments performed in Kazakhstan and Uzbekistan

Year of compilation	2013	2014	2015	2016	2017	2018	2019	2020 2021
Kazakhstan	4	4	5	6	5	4	6	8
Uzbekistan	2	4	0	0	1	0	0	1
Total	6	8	5	6	6	4	6	9

Experimental data on nuclear reaction are obtained on the following basic facilities

- Isochronous cyclotron U-150 M (INP, Kazakhstan)
- Heavy Ion Cyclotron DC-60 (INP, Kazakhstan)
- Electrostatic accelerator UKP-2-1 (INP, Kazakhstan)
- Neutron d-t generator (INP, Uzbekistan)

COMPILED ARTICLES

Entry	First author	Article	Accelerator
D8030	T.Zholdybayev	J,EPJ/CS,239,01033,2020	U-150M
D8007	Gazeeva	J,BAS,84,420,2020	DC-60
D8006	Nauruzbayev	J,PAN,83,520,2020	DC-60
D8020	Y.Mukhamejanov	J,APP/B,51,783,2020	U-150M
D8009	A.K.Nurmukhanbetova	J,PR/C,100,062802,2019	DC-60
D8005	T.Zholdybayev	J,BAS,83,(9),1293,2019	U-150M
D8003	N.Burtebayev	J,IMP/E,27,1850025,2018	U-150M
D8002	A.Amar	J,IMP/E,20,980,2011	UKP-2-1, DC-60
31807	S.Artemov	J,BAS,84,894,2020	D-t generator (UZB)

Action A35 "Compilation of differential cross sections in preprints"

Three preprints with tabulating cross sections for light charged particles were published by INP in 1970, 1990 and 1991. We made all numbers computer readable and compiled in EXFOR entries.

When there is an EXFOR entry compiling the same data set (typically by digitization) with an appropriate citation, we revised the EXFOR entry.

When we could not find any publication suitable for citation, the data set were compiled in D8016, D8017 or D8013 for the preprints published in 1970, 1990 and 1991, respectively

We prepared numerical data listed below.

Numerical data on elastic and inelastic scattering on light and medium nuclei printed in Gonchar's preprint were made computer readable and compiled in EXFOR D8014, D8015, D8016 and F1168;

Numerical data on elastic and inelastic scattering of a-particles and 3He ions with energy from 30 to 60 MeV on nuclei with Z=28-50 printed in Kuterbekov's preprint were made computer readable and compiled in EXFOR D8013, F0560 and F0561;

A part of the numerical data on elastic and inelastic scattering on nuclides with Z=6-50 (Pavlova's preprint) made computer readable in the last action A33 but still missing in EXFOR were compiled in EXFOR D8017, F0497, F0668, F0865 and F1160

We continue to find the numerical data in laboratory logbooks. For entries below we prepared numerical data and the relevant EXFOR entries:

Numerical data on double-differentials cross-section from interaction of ^{3}He ions on ^{27}Al, ^{58}Ni, ^{60}Ni, ^{59}Co and ^{90}Zr kept in a laboratory logbook were made computer readable and compiled in EXFOR D8012;

Numerical data on double-differentials cross-section from interaction of ^{3}He ions on ^{61}Ni and ^{57}Fe kept in a laboratory logbook were made computer readable and compiled in EXFOR D8011

THANKS FOR YOUR ATTENTION