



NRDC Technical Meeting, Vienna, May 23-24, 2010

# NNDC Report to NRDC on EXFOR Activities

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*1) Bratislava, subcontracted by the NNDC*

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# Overview of EXFOR Activities

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## Distribution of work

- Compilation by Stanislav Hlavac
- Internal checking by Otto Schwerer
- NNDC oversight by Pavel Oblozinsky/Boris Pritychenko

Corrections of old entries by Otto Schwerer and Vicki McLane

Many compilations of existing entries with NO DATA, data mainly digitized and/or scanned from large tables

New compilations mainly data/papers published in 2010/11

# Compilation flow

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## Compilation iteration

- Compilation by SH, contact with authors
- Internal checking by OS, first iteration
- In case of unusual or new data type contact to NDS (N.Otsuka) and/or submission of CP memo (OS)
- Submission of Prelim
- Reply to feedback on Prelim, corrections, submission of final TRANS: OS + SH

## Note:

Contact with author preferably through one (always same) compiler

# Retransmissions

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Old entries requiring new digitizations:

Stanislav Hlavac

Systematic corrections from NDS feedback list:

Vicki McLane: old entries from area 1

(until April 2011 also old entries from area C)

Otto Schwerer: more recent entries from area 1; area C

What corrections are made?

All corrections considered important.

In general no complete recompilation, i.e. not all possible small or cosmetic improvements are done

# Other input to NRDC

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Submitted (mostly with co-authors) memos

CP-C/390 through 395

CP-D/644 through 648, 651, 652

Compilation workshop August 2010

Input on revised Manual and LEXFOR

# Entries in TRANS files submitted to NRDC since meeting in Sapporo, April 2010

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## Neutron induced reactions

TRANS	ENTRIES		SUBENTRIES		
	Total	New	corrected	inserted	new
1362	10	4	23	5	9
1363	16		51	6	
1364	16		88		
1365	12		70	2	
1366	28	4	99	30	20
1367	28	6	64	19	32
1368	23	1	71	1	3
1369	20		107	3	
1370	26		77	51	
1371	9	6	5	1	37
<b>subtotal</b>	<b>188</b>	<b>21</b>	<b>655</b>	<b>118</b>	<b>101</b>

Entries in TRANS files inserted into EXFOR since May 1, 2010

Total number of compilations including retransmissions

New compilations are compilations of recent data as well as data from older papers, not yet included in EXFOR

All numbers provided the recent version of ZCHECK

# Entries in TRANS files submitted to NRDC since meeting in Sapporo, April 2010

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## Charged particle induced reactions

TRANS	ENTRIES		SUBENTRIES		
	Total	New	corrected	inserted	new
C098	14	12	9	1	53
C099	10		47		
C100	21	16	12	3	88
C101	16	11	23	21	44
C102	3		6		
C103	18	11	28	8	45
C104	17	8	20		32
C105	9	1	30	223	88
C106	6	6			30
<b>subtotal</b>	<b>114</b>	<b>65</b>	<b>175</b>	<b>256</b>	<b>380</b>

## Entries in TRANS files submitted to NRDC since meeting in Sapporo, April 2010

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### Photon induced reactions

	ENTRIES		SUBENTRIES		
TRANS	Total	New	corrected	inserted	new
L014	6	6			33
L015	9	6	5		19
<b>subtotal</b>	<b>15</b>	<b>12</b>	<b>5</b>		<b>52</b>

### Summary of NNDC EXFOR activities

Total no. of compilations					
	ENTRIES		SUBENTRIES		
Incident particle	Total	New	corrected	inserted	new
neutrons	188	21	655	118	101
charged particles	114	65	175	256	380
photons	15	12	5		52
<b>TOTAL</b>	<b>317</b>	<b>98</b>	<b>835</b>	<b>374</b>	<b>533</b>



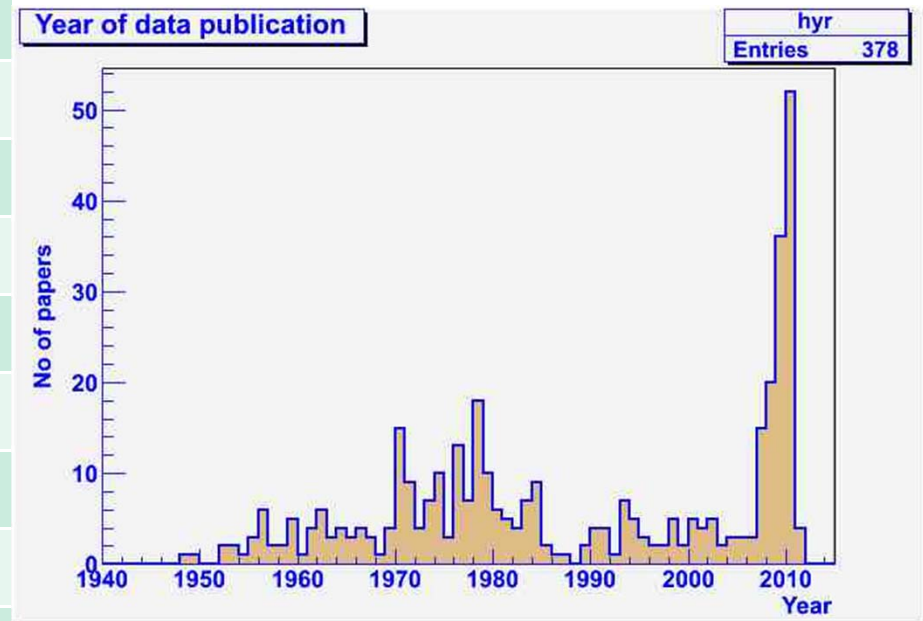
# Statistics of compiled EXFOR entries

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## Distribution of data sources

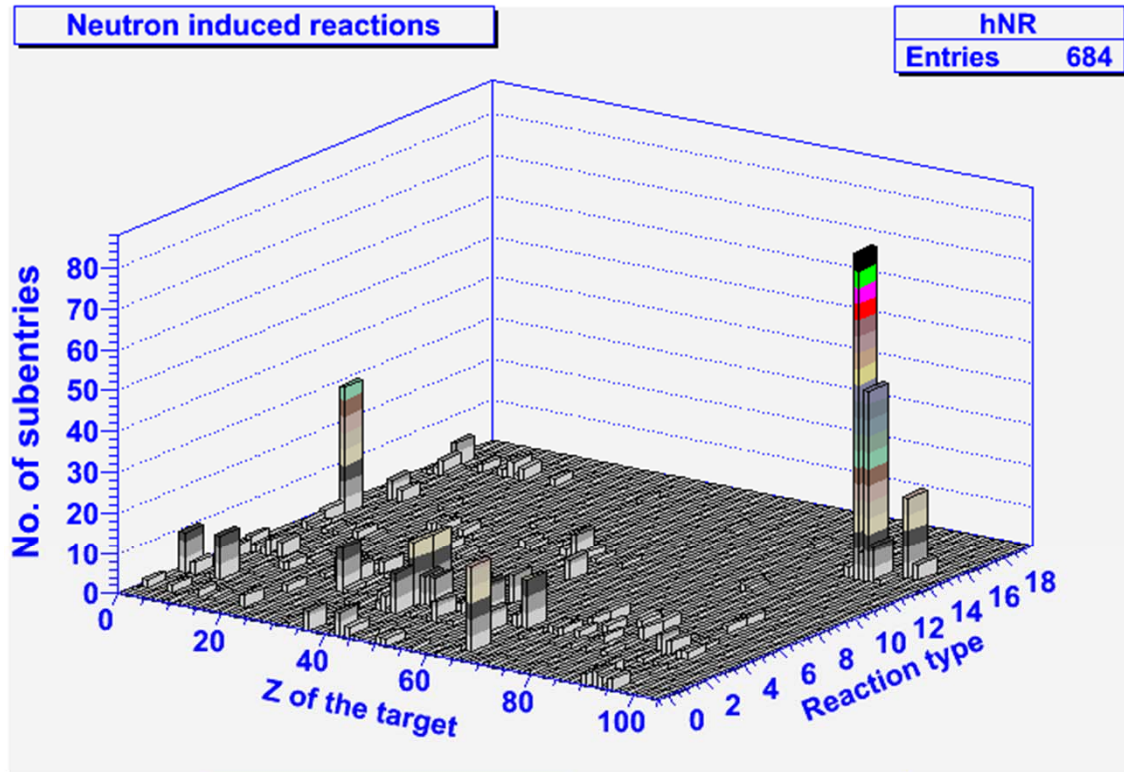
Source	No of papers
Physical Review/C	143
Nuclear Science & Eng.	38
Laboratory reports, Thesis	26
Conference Proceedings	20
Nuclear Physics /A	16
Physical Review Letters	14
Physics Letters/B	10
Nuclear Instr. Methods A/B	5
Other	23

## Publication year of compiled data



# Statistics of compiled EXFOR entries

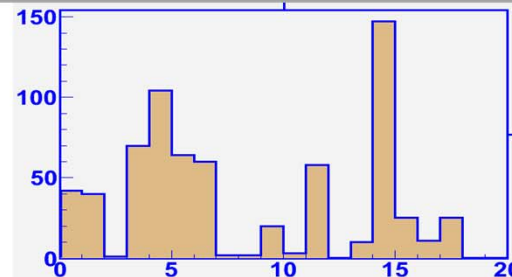
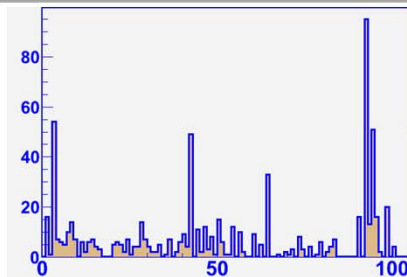
## Target distribution and reaction type in neutron reactions



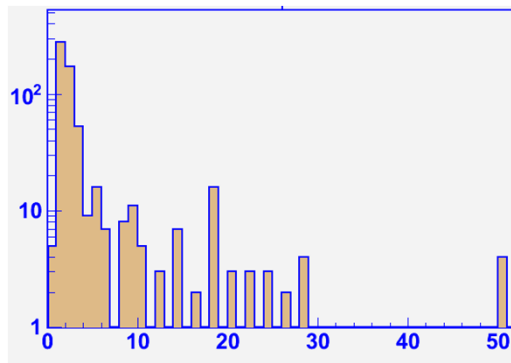
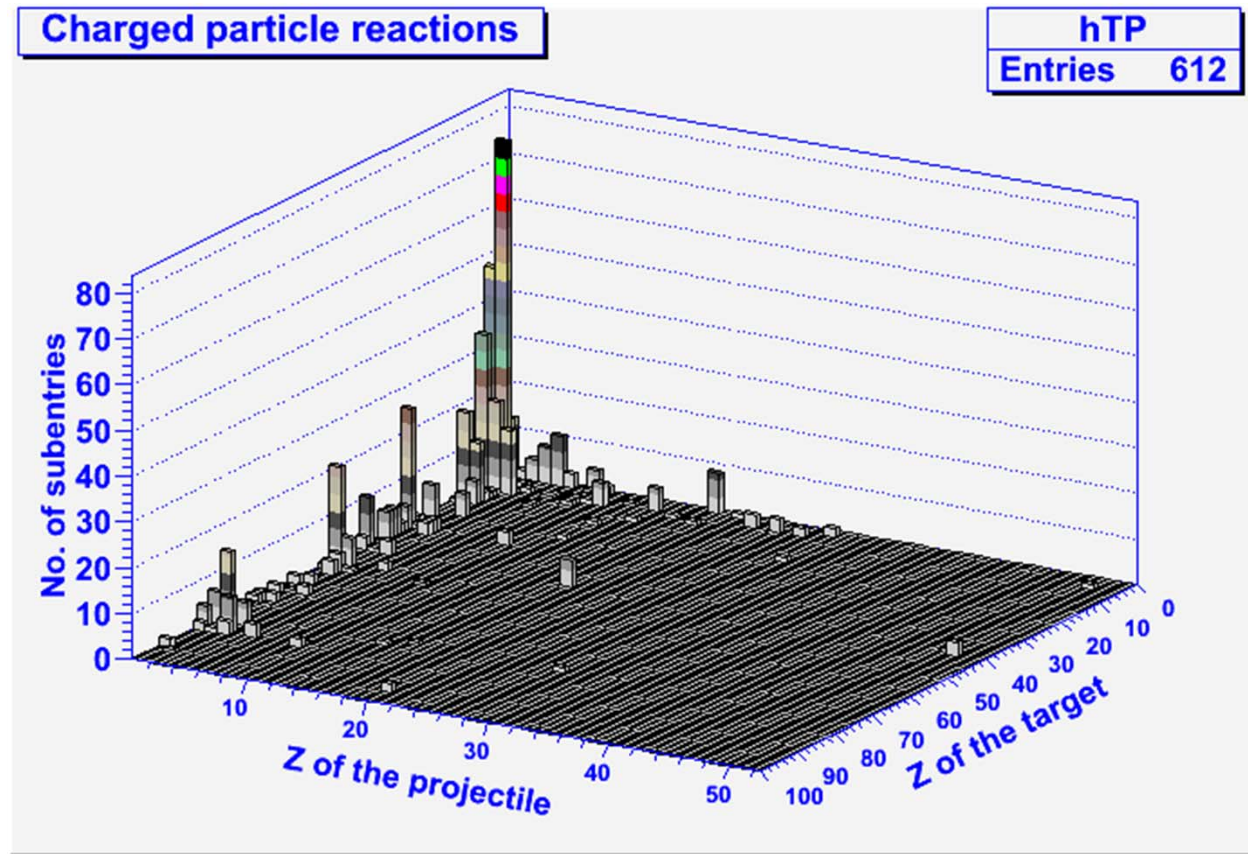
### Reaction type

- 0 Resonance parameters
- 1 Total
- 2 Absorption
- 3 Elastic
- 4 Capture
- 5 Inelastic
- 6 (n,2n)
- 7 (n,3n)
- 8 (n,4n)
- 9 (n,p)
- 10 (n,d)
- 11 (n,t)
- 12 (n,3He)
- 13 (n, $\alpha$ )
- 14 (n,f)
- 15 (0,f)
- 16 other
- 17 (n,X)

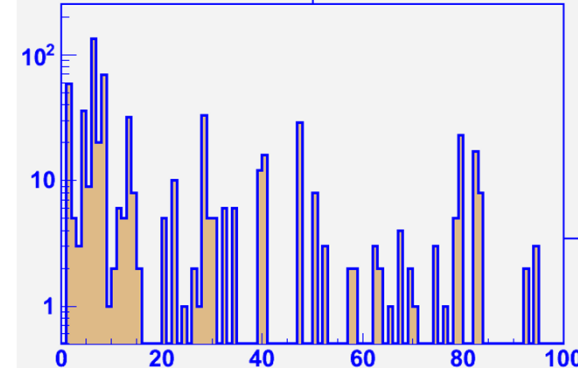
### Projections



# Distribution of targets and projectiles in CP reactions



Projections



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Thank you for your attention