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**Memo CP-D/664**

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**To:** Distribution

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**Subject: Some high energy cross sections missing in EXFOR (-1964)**

Recently I have been informed by Dr. A. Konobeev (KIT Karlsruhe) that tritium and other gas production cross sections for proton beam (50 MeV – 2.2 GeV) [1,2] are missing in EXFOR. Because tritium production cross sections are important for application, I have compiled these two reports (EXFOR D0627 and D0628).

In this occasion, I checked completeness of EXFOR for the reference lists of these two CERN reports. Fortunately a large part of the experimental data is available in the EXFOR library (mainly compiled by NNDC and NEA Data Bank), while 6 articles are identified as missing in EXFOR:

#	Reference	Proj.	E <sub>min</sub> (GeV)	E <sub>max</sub> (GeV)	Lab.	Centre
1	W.J.Knox,J,PR,75,537,1949	n	0.09	0.09	1USABRK	NNDC
2	E.L.Fireman+,J,PR,97,780,1955	p	2.2	2.2	1USABNL	
3	P.A.Benioff,J,PR,119,316,1960	p	5.7	5.7	1USABRK	
4	G.A.Chackett+, J,PPS/A,69,43,1956	p	0.20	0.98	2UK BIR	NEADB
5	M. Lefort+, J,NP,19,173,1960	a	0.15	0.15	2FR PAR ?	
6	V.V.Kuznetsov+,J,ZET,35,587,1958	p	0.12	0.66	4ZZZDUB	CAJaD

I propose to assign compilation of data from US, European countries and former USSR to NNDC, NEA Data Bank and CAJaD, respectively. Note that some data are for incident energy higher than 1 GeV, and I will compile such data if it is preferable for the assigned centre.

**References**

[1] K. Goebel, Report CERN 58-2, 1958 (to be registered as D0627).

[2] K. Goebel *et al.*, Report CERN 64-12, 1964 (to be registered as D0628).

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