

**Nuclear Data Section
International Atomic Energy Agency
P.O.Box 100, A-1400 Vienna, Austria**

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From: N. Otsuka

Subject: Proton-induced reaction cross sections missing in EXFOR

Following two previous compilations of directly measured proton-nucleus reaction and total cross sections by W. Bauhoff [1] and R.F Carlson [2], M. Lantz (Uppsala Univ.) is preparing a new publication for compilation of proton-, light-ion and heavy-ion induced reaction cross section. Motivated by his recent report [3], I checked Refs. [1-2], and found some reaction cross sections missing in the EXFOR library.

Table: Proton-induced reaction cross section missing in EXFOR

(Remark: Reference symbols used in [2] are given. T denotes Total cross section.)

Author	Reference	Lab.	E_{\min} eV	E_{\max} eV	Remark
C.Hojvat+	J,NIM,66,13,1968	1CANUBC	1.6e+7	1.6e+7	Ho68
E.J.Burge	J,NP,13,511,1959	2UK KCL	2.5e+7	5.4e+7	Bu59
R.Goloskie+	J,NP,29,474,1962	1USAHRV	7.7e+7	1.3e+8	Go62
J.N.Palmieri+	J,NP,59,253,1964	1USAHRV	1.4e+8	1.5e+8	Pa64,T
D.G.Montague+	J,NP/A,199,457,1973	1USAUSC	1.6e+7	2.8e+7	Mo73
N.E.Davison+	J,NP/A,290,45,1977	1CANMNA	1.8e+7	4.8e+7	Da77
J.Marshall+	J,PR,91,767,1953	1USACHI	4.1e+8	4.1e+8	Ma53,T
H.G. de Carvalho	J,PR,96,398,1954	1USACHI	2.1e+8	3.2e+8	Ca54,T
I.Slaus+	J,PR/C,12,1093,1975	1USACLA	2.0e+7	4.4e+7	Sl75
B.D.Anderson+	J,PR/C,19,905,1979	1USALAS	7.0e+8	7.0e+8	An79
R.D.Albert+	J,PRL,6,13,1961	1USALRL	9.9e+6	9.9e+6	Al61
G.W.Greenlees+	J,PRS,78,1275,1961	2UK BIR	9.3e+6	9.3e+6	Gr61
J.M.Cassels+	J,PRS/A,67,125,1954	2UK HAR	1.3e+8	1.3e+8	Ca54a

Proton-induced *reaction* cross sections are useful for evaluated based on optical-potential parameters, and should be compiled. For your information, proton-induced *total* cross section publications (can be compiled with MSC in SF8 with its definition in free text) missing in EXFOR is also listed. Numerical data should be available in these articles and also seen in Refs. [1-2].

Note that more additional articles missing in EXFOR will be published by Dr. Lantz. His objective is to publish his compilation as soon as possible, and at the same time make the data available for inclusion in the EXFOR database [3].

References

- [1] W. Bauhoff, At. Data Nucl. Data Tables **35** (1986) 429
 [2] R.F. Carlson, At. Data Nucl. Data Tables **63** (1996) 93

[3] M. Lantz and L. Sihver, NEA/NSC/DOC(2011)4, p37.

Distribution:

aikawa@jcprg.org
blokhin@ippe.ru
cgc@ciae.ac.cn
chiba@earth.sgu.ac.jp
emmeric.dupont@oecd.org
fukahori.tokio@jaea.go.jp
ganesan@barc.gov.in
gezg@ciae.ac.cn
hongwei@ciae.ac.cn
jhchang@kaeri.re.kr
j.roberts@iaea.org
kaltchenko@kinr.kiev.ua
katakura.junichi@jaea.go.jp
kato@nucl.sci.hokudai.ac.jp
kiralyb@atomki.hu
l.vrapcenjak@iaea.org
kiyoshi.matsumoto@oecd.org
manuel.bossant@oecd.org
manokhin@ippe.ru
mmarina@ippe.ru
mwherman@bnl.gov
nicolas.soppera@oecd.org
nklimova@kinr.kiev.ua

n.otsuka@iaea.org
nrdc@jcprg.org
oblozinsky@bnl.gov
ogritzay@kinr.kiev.ua
otto.schwerer@aon.at
pronyaev@ippe.ru
r.forrest@iaea.org
samaev@obninsk.ru
s.babykina@polyn.kiae.su
scyang@kaeri.re.kr
s.simakov@iaea.org
stakacs@atomki.hu
stanislav.hlavac@savba.sk
sv.dunaeva@gmail.com
taova@expd.vniief.ru
tarkanyi@atomki.hu
vvvarlamov@gmail.com
vlasov@kinr.kiev.ua
v.semkova@iaea.org
v.zerkin@iaea.org
yolee@kaeri.re.kr
zhuangyx@ciae.ac.cn

cc:

kohama@ribf.riken.jp
Mattias.Lantz@physics.uu.se