

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

Memo CP-D/582

Date: 2 September 2009
To: Distribution
From: N. Otsuka, O. Schwerer

Subject: Data type (SF9) for data measured by indirect reaction

Data measured from indirect reaction methods (e.g. reaction data derived from a measurement of a different reaction) have been accumulated in EXFOR entries. Below are some examples of such data:

- 1) Surrogate reaction (Analysis code SURGT):
 $^{237}\text{Np}(n,f)$ data derived from $^{238}\text{U}(^3\text{He},t+f)$ measurement
- 2) Trojan horse method (Analysis code TROJA)
 $^9\text{Be}(p,\alpha)^6\text{Li}$ data derived from $^2\text{H}(^9\text{Be},\alpha+^6\text{Li})n$ measurement
- 3) Coulomb breakup (No analysis code)
 $^{14}\text{C}(n,\gamma)^{15}\text{C}$ data derived from $^{\text{nat}}\text{Pb}(^{15}\text{C},n+\gamma)^{\text{nat}}\text{Pb}$ measurement

In these data, some theoretical assumptions are used in derivation. In order to distinguish data measured by direct reaction methods by indirect reaction methods, use of a data type code DERIV (derived data) in SF9 field of REACTION codes is proposed for data measured by indirect reaction methods.

In LEXFOR “Data Type”,

“Data calculated using measurements for an inverse reaction”
 is given as an example of derived data. I would propose to change this to
 “Data calculated using measurements for an indirect reaction (e.g. inverse reaction, surrogate reaction)”

Distribution:

blokhin@ippe.ru
 chiba@earth.sgu.ac.jp
 claes.nordborg@oecd.org
 emmeric.dupont@oecd.org
 ganesan@barc.gov.in
 gezg@ciae.ac.cn
 hasegawa@nea.fr
 henriksson@near.fr
 hongwei@ciae.ac.cn

jhchang@kaeri.re.kr
 kaltchenko@kinr.kiev.ua
 katakura.junichi@jaea.go.jp
 kato@nucl.sci.hokudai.ac.jp
 kirarlyb@atomki.hu
 l.vrapcjenjak@iaea.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
r.forrest@iaea.org
samaev@obninsk.ru
s.babykina@polyn.kiae.su
scyang@kaeri.re.kr

s.dunaeva@iaea.org
stakacs@atomki.hu
stanislav.hlavac@savba.sk
taova@expd.vniief.ru
tarkanyi@atomki.hu
varlamov@depni.sinp.msu.ru
vlasov@kinr.kiev.ua
vmclane@optonline.net
v.pronyaev@iaea.org
v.zerkin@iaea.org
yolee@kaeri.re.kr