28 Feb 2002

To: **Distribution**
From: **F.E. Chukreev**
Subject: **Addition to Dictionary 24**

Add to dictionary 24

Some publications contains energy in C.-M. System as independent variable. The energy is sum of kinetic energy of incident projectile and target nucleus in C.-M. System.
The connection of the energies:
$$E(cm)=(M/(M+m))E(lab),$$
Where **M** – mass of target nucleus,
    m – mass of projectile,
    E(lab) – projectile energy in Lab-system.
A little index the publication, where E(cm) were used:

                J,PL/B,462,237,99
                J,NP/A,614,238,97
                J,NP/A,645,13,99
                J,NP/A,596,299,96
                J,NP/A,635,305,98

The independent variable is suitable for astrophysical data.
We have in Dictionary 24 now only:

        EN-CM   Incident Projectile Energy in C.M. System.

Therefore we would like to include special code for E(cm).
**EN-CM-TOT   Sum kinetic energies of projectile and target
                Nucleus in C.-M. System.**
We can discuss the independent variable during to nearest meeting.

Distribution:
OBLOZINSKY@BNL.GOV
VML@BNL.GOV
NORDBORG@NEA.FR
KELLETT@NEA.FR
MANOKHIN@IPPE.RSSI.RU
MAEV@IPPE.RSSI.RU
FELIKS@POLYN.KIAE.SU
CHUKREEV@POLYN.KIAE.SU
DUNAEVA@EXPD.VNIIEF.RU
VARLAMOV@depni.NPI.MSU.SU
CHIBA@EARTH.SGU.AC.JP
KATO@NUCL.SCI.HOKUDAI.AC.JP
TENDOW@POSTMAN.RIKEN.GO.JP
YXZHUANG@IRIS.CIAE.AC.CN
TARKANYI@ATOMKI.HU
TAKACS-S@ATOMKI.HU

```
HASEGAWA@CRACKER.TOKAI.JAERI.GO.JP
VLASOV@KINR.KIEV.UA
KALTCHENKO@KINR.KIEV.UA
OGRITZAY@KINR.KIEV.UA
```