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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:

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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.

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