

## Addition to Dictionary 24 and LEXFOR: Heading TKE

(O. Schwerer, N. Otsuka, CP-C/426, 2014-04-09)

In memo CP-D/807 on an update of the Lexfor page on “Fission Yields”, new REACTION coding is proposed for, among other things, energy-differential fission yields, and for quantities at specific total kinetic energy. Both quantity types require compilers to give the total kinetic energy as independent variable.

In the earlier memo CP-D/705 on partly the same topic, a new heading TKE for “Total kinetic energy” had been proposed but it was, so far, not introduced. We note that compilers use the general heading E also for total kinetic energy; however we think that it is preferable to have a genuine heading for it, as was proposed earlier.

Therefore we propose:

- Addition to dictionary 24:

TKE Total kinetic energy

- Addition of the sentence

“The total kinetic energy is given under the heading TKE”

to the two relevant new sections in the revised Lexfor page on “Fission Yields” proposed in CP-D/807.

### *Two relevant new sections in the revised LEXFOR “Fission Yields” (Extraction from CP-D/807)*

#### **Energy Differential Fission Yield (new section)**

**REACTION coding:** FY/DE in SF6.

**Units:** a code from Dictionary 25 with the dimension FYDE (e.g., PC/FIS/MEV)

#### **Example:**

(98-CF-252(0,F),PRE,FY/DE,FF/LF+HF)

Differential yield of fission fragments with respect to total kinetic energy

(98-CF-252(0,F)MASS,PRE,FY/DE,LF+HF)

Differential yield of fission fragments specified with respect to total kinetic energy

#### **Quantities at Specific Total Kinetic Energy (new section)**

Total kinetic energy dependence of prompt fission neutron quantities (e.g., multiplicities, average emission energy) which is not partial for the total kinetic energy (i.e., not additive for total kinetic energy).

**REACTION Coding:** TKE in SF6.

#### **Example:**

(...(0,F),PR,NU/TKE)

Prompt fission neutron multiplicities at the total kinetic energy specified.