

## Usage of Heading THICKNESS

(N. Otsuka, M. Mikhaylyukova, CP-D/808, 2013-09-27)

As Viktor Zerkov reported in WP2013-34 (Rev.), sample thickness is currently treated not as an “independent variable” but as “additional information”. It is known that some quantities (*e.g.*, transmission) can be well-defined only when the sample thickness is given. Because of various technical reasons (*e.g.*, dictionary format), we cannot treat the sample thickness as an independent variable in the EXFOR system very soon. However the revision of the LEXFOR entry “Sample” is proposed below to make future implementation easier.

### Sample

...

#### Sample Thickness

~~In the case of sample thickness, especially if data are measured for more than one thickness~~ If the quantity depends on the sample thickness (*e.g.*, transmission, thick target yield) and it is not expressed by an alternative way (*e.g.*, incident energy at the entrance and exit of the sample), the sample thickness ~~may~~ must be entered into the COMMON or DATA section under the heading THICKNESS.

#### *Example:*

```

DATA
EN          DATA          THICKNESS
MEV          B              ATOMS/B

ENDDATA

COMMON
THICKNESS
ATOMS/B

ENDCOMMON
DATA
EN          DATA          DATA-ERR
MEV          NO-DIM        NO-DIM

ENDDATA

```

#### *Additional proposal by NO (2014-04-29):*

I also would like to propose not to use THICKNESS when the quantity does not depend on the sample thickness by its definition (*e.g.*, cross section).