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Subject: Addition to Dictionary 21 (Method)

We propose the following addition of a code for the transmission method. In this method, cross section σ is obtained by the following ratio.

$$\sigma_{\text{tot}} = -\frac{1}{n} \log \frac{(N/N_0)_{\text{full}}}{(N/N_0)_{\text{empty}}}$$

, where

N : number of particle detected by the transmission counter

N_0 : number of incident particle

n : number of scatters per unit volume of target

“full” and “empty” denote the measurement in the target-full run ($n \neq 0$) and target-empty run ($n=0$). Also reaction cross section is obtained if we measure the number of non-reacted particle for N . Ratio N_0/M is so called “transmission”.

Dictionary 21 (Method)

TRN

Transmission method

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