

REVIEW OF THE "PURE" E2 α_k MEASURED CONVERSION COEFFICIENTS FOR THE
 $2^+ \rightarrow 0^+$ TRANSITIONS

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The $\alpha_k(E2, 2^+ \rightarrow 0^+)$ are used as "well known" for normalisations in a number of nuclear spectroscopy experiments. This work is an attempt to analyze how good is this value really "well known".

About 200 measured $\alpha_k(E2; 2^+ \rightarrow 0^+)$ were collected. They have been analysed against their mutual agreement, and compared with the Hager - Saltzer's theoretical values. That was done for all bunch of data, and also for some specific nuclei, if the number of measurements was great enough.

Agreement with the theoretical values is within the limits of errors.

Conclusion is that the $\alpha_k(E2; 2^+ \rightarrow 0^+)$ are poorly measured.

Complete analysis, with the tables, graphs and references is prepared for print in Atomic and Nuclear Data Tables.