Representation of spectral line profiles
by means of the Lorentz-function of n-th degree

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Abstract

It will be shown how to fit the Lorentz-function of n-th degree to profiles of the spectral lines. Some examples are given for analyzing profiles by a new method, called the "cutting-method". Values of the Voigt-function are compared with those of the general Lorentz-function (of n-th degree). It seems to be impossible to differentiate these two functions by means of experimental methods. The results of the analysis of profiles yielding $n < 1$ may be due to those profiles being composed of two or more components.

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