

X-ray diffraction analysis

X-ray diffraction analysis is a method of determining the structure of crystalline substances. The method is based on the fact that the dimensions of the crystal lattice are comparable to the wavelength of X-ray radiation. Diffraction (bending) of radiation can thus occur on the crystal lattice. Because the crystal pattern is periodic, the diffraction pattern of the radiation after passing through the crystal correlates fairly well with the crystal structure.

The method is used to determine the structure understood as the spatial arrangement of crystalline substances. To determine the structure of organic macromolecules, crystals must first be obtained. This can sometimes be a limiting factor.

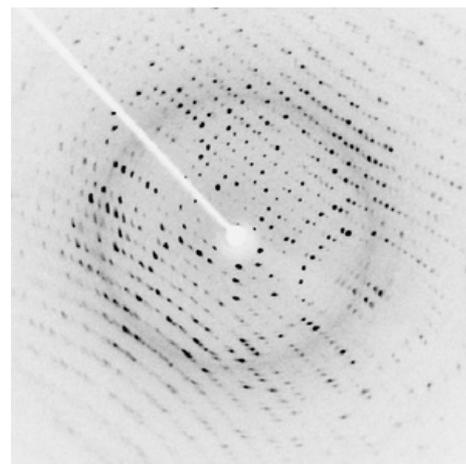
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- ŽÍDEK, Lukáš. *Strukturní biochemie* [online]. Brno : NCBR, PŘF, MU, 2013, Available from <<http://www.ncbr.muni.cz/~lzidek/C9530/skripta.pdf>>.



Diffraction pattern of lysozyme