“X-ray Diffraction Crystallography”

Haven France

QUANTITATIVE METHODS IN ROCKS AND MINERALS

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ABSTRACT

During field study work in the Piedmont area of North Carolina Limonite Crystals were collected for study. Cubes of limonite are not actually crystalline in structure, but in fact, this mineral is a pseudomorph which takes on the crystal shape of the mineral it is replacing. X-ray diffraction is the most practical method of collecting atomic information about a solid material such as Limonite. X-ray diffraction is not just a superficial scan of a rock, but it is a process that requires meticulous work. This unique form of X-raying is useful for identifying and classifying rocks and minerals. This paper will explore way scientists differentiate crystalline structures from non-crystalline structures using X-ray diffraction.