

Structural Study of a $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Superconductor by Anomalous X-ray Scattering

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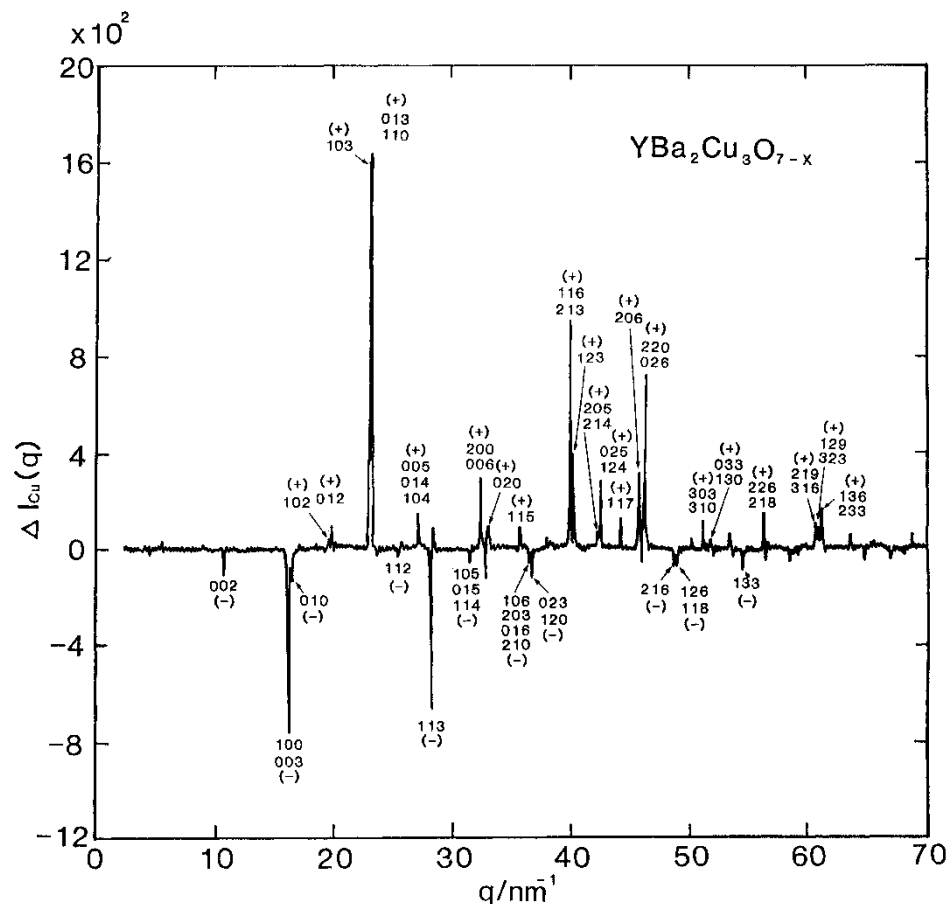


Fig.1 The energy dependence of the intensity $\Delta I_{\text{Cu}}(q)$ for a $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ superconductor as a function of the wave vector q .

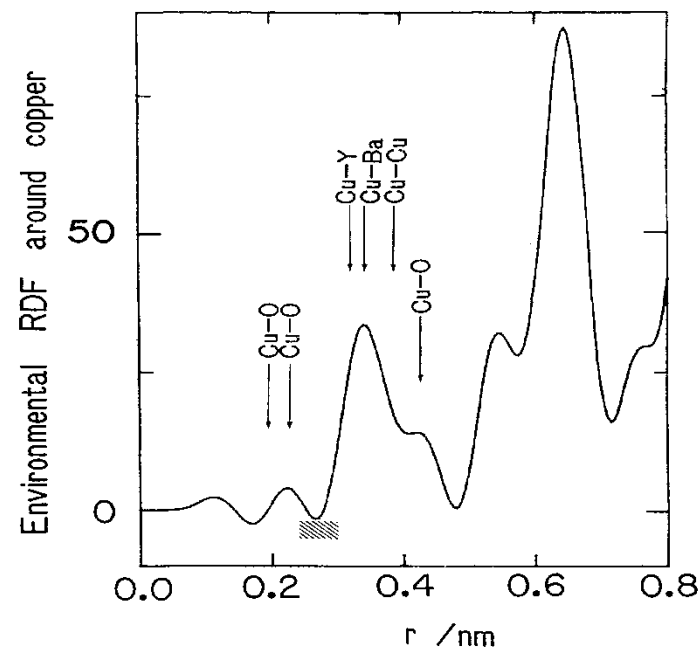


Fig.2 The environmental RDF around Cu in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ superconductor obtained from the differential intensity profile shown in Fig.1.

☆ The measured energy dependence arising from the anomalous dispersion effect of copper was quite consistent with the changes expected from the crystal structure factor based on a model of the orthorhombic structure.

☆ This result has also been confirmed by the local environmental structure around copper calculated from the present AXS measurement.

K. Sugiyama and Y. Waseda (1989)