

[54] **DETERMINING THE EXISTENCE OF MISORIENTATION IN A CRYSTAL**

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[57] **ABSTRACT**

A method and apparatus for determining the existence of misorientation in a crystal, comprising irradiating the crystal with X-rays pre-orientating any crystallographic plane of the crystal with respect to the axis of the X-rays, imaging X-rays received from the crystal so as to cause a plurality of effectively angularly-separated images to be formed, the energy of the X-rays being such that while carrying out the method at least some of the X-rays forming the images have intersected the whole depth of the portion of the crystal being examined, and determining the existence of any misorientation from the images.

18 Claims, 10 Drawing Sheets

