

axis with respect to crystal axes was random and the growing process was repeated until a crystal with its specimen axis within 15 degrees of a desired orientation was obtained for each of the three simple directions  $[100]$  ,  $[110]$  , and  $[111]$  . The orientation of the specimen axis was determined by a back reflection Laue X-ray photograph and the specimen was then cut off to the desired length and orientation using a water cooled abrasive cut off wheel.

The echo surfaces\* were prepared by alternate grinding

---

\*The specimen is cut with two surfaces perpendicular to the direction of wave propagation. The surface normals of the specimens used in this experiment are close enough to the three simple directions  $[100]$  ,  $[110]$  , and  $[111]$  that the directions of propagation are considered to be in these directions. These surfaces at which the acoustic reflections take place will be referred to as echo surfaces.

---

etching, down to 0000 grit paper backed by plate glass, while the specimens were mounted in lapping rings to ensure parallelness of the echo surfaces. The final dimensions and orientations of the specimens are given in Table II.