$(\rho v^2)_{55}$ refer to the two transverse wave. The term $(\rho v^2)_{66}$ refers to particle motion perpendicular to the "c" axis and the term $(\rho v^2)_{55}$ refers to particle motion in a plane containing X' and the "c" axis. The pertinent relations between the primed and conventional elastic constants are

$$C'_{11} = \sin^4\theta\, C_{11} + \cos^4\theta\, C_{33} + 2 \cos^2\theta \sin^2\theta\, (C_{13} + 2\, C_{44})$$

$$C'_{66} = \sin^2\theta \left(\frac{C_{11} - C_{12}}{2}\right) + \cos^2\theta\, C_{44} \qquad (2)$$

$$C'_{55} = \sin^2\theta \cos^2\theta\, (C_{11} - 2\, C_{13} + C_{33}) + (\sin^2\theta - \cos^2\theta)^2\, C_{44}$$

$$C'_{15} = \sin^3\theta \cos(-C_{11} + C_{13} + 2\, C_{44}) + \cos^3\theta \sin\theta(-C_{13} + C_{33} - 2\, C_{44})$$

$$C'_{16} = 0$$

$$C'_{56} = 0$$

The choice of specimen orientations listed in Table 1 simplify the above equations and solution of equations(1) and (2) yields the conventional elastic constants obtained in this work.

Table 2 displays the values of the elastic constants at 27°C which were obtained in this work. The density, ρ, of 8.648 g cm^{-3} that was used in reducing the data was computed