

Table 2. Data and formulae for the off-orientation tantalum crystal at 25°C. Direction cosines are: $\ell = .7752$; $m = .6279$; $n = .0697$. Orientation functions are: $\Gamma = \ell^2 m^2 + m^2 n^2 + n^2 \ell^2$; $\alpha = 2n^2(\ell^4 + \ell^2 m^2 + m^4)/(\ell^2 + m^2)$; $\beta = 2\ell^2 m^2/(\ell^2 + m^2)$. Notation used is $C = C_{44}$ and $C' = (C_{11} - C_{12})/2$.

	Formula	Working Expression	Value (10^3 kbar)	Transit Time, T Observed (μ s)
C'_{11}	$C_{11} - 4\Gamma(C' - C)$	$C_{11} - (.9668)(C' - C)$	2.900	9.081
C'_{55}	$C + 2\alpha(C' - C)$	$(.9853)C + (.0147)C'$	.814	17.208
C'_{66}	$C + 2\beta(C' - C)$	$(.0478)C + (.9522)C'$	.532	20.846