where a_5 and a_6 are the constant displacement coefficients. Combining (59) with equations (3) leads to the following expressions for the displacements.

$$u = a_5 r^2 + a_6 r \tag{60}$$

$$w = -z\,(3a_5 r + 2a_6) \tag{61}$$

The undesirable feature associated with these displacements is that the curvature at the top surface of the wafer is discontinuous at the axis. This situation could have been remedied by replacing the r^3 term in (59) with an r^4; however, the resulting equations were not deemed tractable at the time this part of the problem was worked. If the above displacements are combined with the strain definitions, (2), the results are

$$\begin{aligned} \epsilon_r &= 2a_5 r + a_6 \\ \epsilon_\theta &= a_5 r + a_6 \\ \epsilon_z &= -3a_5 r - 2a_6 \end{aligned} \tag{62}$$