in Figure 14. Both sides of the diagram are employed to effectively illustrate the large stress gradients which occur in both the radial and axial directions of a confined wafer. The radial stress gradients are of the type encountered in the unconfined wafer; however, the axial gradients are appreciably greater, and this observation will be commented on later. Figure 15 illustrates the stress gradients within the above wafer after the load has been increased until the mid-meridian wafer radius is 2.4 per cent larger than its original value. These last two figures indicate that the radial gradients tend to level out with increase in load, and that the entire stress state approaches more closely to a hydrostatic condition.

In order to evaluate the effects of wafer shape (D/H ratio) on the stress distribution in confined wafers, two additional calculations were made with all parameters, except wafer shape, being the same as those utilized in Figure 15. The new diameter-to-height ratios were 6.5 and 13, and their resulting stress distributions are shown in Figures 16 and 17, respectively. The results of these last three figures have been combined to give a descriptive account of the influence of wafer shape on the profile of the axial normal stress distribution. Using the ratio of the axial stress at the wafer center to the average axial stress as the parameter for describing the stress profile, the curve appearing in Figure 18 shows, for D/H in the range of 3 to 13, that the normal axial stress distribution across the wafer surface is