

mentors have been compelled to define pressure in terms of total compressive load, divided by wafer area. This is actually a measure of the average axial normal stress, and would supposedly exist only at the mid-meridian plane by virtue of the presence of shearing stress on the deflected wafer surface. Pressure is usually defined as the average of the orthogonal stress state existing at a point, and will be referred to as such in this report. The purpose of discussing these reports is to point out the difficulty to be encountered by experimentors in attempting to isolate, and predict, the influence of changes in all of the probable parameters. Chief among the parameters needed to be studied are: diameter to thickness ratio; wafer material properties; anvil-wafer friction effect; anvil deflection; and influence of radial constraints.

The recent edition, Reference (d), of the Annotated Bibliography on High-Pressure Technology, by Alexander Zeitlin, has served as a very extensive and professional survey of the past contributions to high-pressure research. This reference, published in 1964, and containing over 275 pages, presents, in cross-reference form, a listing of P.W. Bridgman's papers, in addition to the numerous high-pressure oriented publications found in the various fields of science. A study of this reference indicated that the experimental techniques employed in References (a), (b), and (c), discussed earlier, provided the most recent and accurate data that has direct applicability to the subject problem. Reference (e) represents the