

IV. FUTURE WORK

A proposal has been written requesting funds for continued research on the subject problem. A research grant would serve to aid in the investigation of the following items: (1) use of hollow wafer-containing ring system as a high-pressure generating device; (2) use of a four-term displacement function in lieu of the present maximum of three; (3) alteration of the analysis to include the effects of high surface shearing stresses; (4) exploration of wafer materials that are more common to high-pressure science (e. g., pyrophilite and silver chloride); (5) use of standard bismuth and manganin wire techniques for direct determination of pressure gradients; and (6) an evaluation of the possible effects of material compression and pressure dependent material constants.

The computer programs presented herein for the evaluation of the displacement coefficients for the compressed, hollow wafer will be tailored to meet the programming requirements for acceptance on the IBM 7090 computer. These results will be used as a guide in the optimum design of the high-pressure generating device.