ACKNOWLEDGEMENTS

This Thesis is a report of a phase of research being conducted in the High Pressure Laboratory at Brigham Young University and has been made possible through a grant from the National Science Foundation.

The Author wishes to express sincerest appreciation and gratitude for the excellent direction and encouragement given by Dr. H. Tracy Hall. Appreciation is also expressed to Dr. J. Dean Barnett for several valuable discussions and suggestions. Thanks are extended to George Bone for his help in fitting Simon's equation to the experimental data, and to D. Clifton Carlson for his assistance in some of the experimental work.

Gratitude is also expressed to the author's wife, Elizabeth, for her encouragement and valuable assistance in composing this paper.

iii