

TABLE OF CONTENTS

	PAGE
PREFACE	iii
LIST OF TABLES	vi
LIST OF FIGURES	vii
CHAPTER	
I. INTRODUCTION	1
A. Purpose	1
B. Previous Investigations	1
II. THEORY OF SHOCK WAVES	4
A. Introduction	4
B. Conservation Relations for a Shock Wave	5
C. Stability of Shock Waves	9
D. Interaction of a Shock Wave with an Interface ...	13
E. Impedance Matching	16
F. Thermodynamics of the Shocked State	19
III. EXPERIMENTAL TECHNIQUES	30
A. Explosives	30
B. Electrical Pin Techniques	33
C. Shot Construction for the Organic Liquids	35
D. Flying Plate Technique	42
E. Liquid Nitrogen Shot Design	45
IV. EXPERIMENTAL RESULTS AND INTERPRETATION .	49
A. Introduction	49