

C O N T E N T S

<u>CHAPTER</u>		<u>PAGE</u>
I	INTRODUCTION	1
II	HHOB APPROXIMATION FOR LITHIUM ATOM	
	2.1 Introduction	34
	2.2 Theory	38
	2.3 Calculations	39
	2.4 Results and Discussion ..	49
III	MODIFIED DAS METHOD	
	3.1 Introduction	61
	3.2 Theory	65
	3.3 Calculations	69
	3.4 Results and Discussion ..	
	3.4.1 Hydrogen Atom ..	81
	3.4.2 Helium Atom	84
	3.4.3 Lithium Atom	85
IV	WALLACE CORRECTED HHOB APPROXIMATION	
	4.1 Introduction	104
	4.2 Theory	107
	4.3 Calculations	125
	4.4 Results and Discussion ..	133

<u>CHAPTER</u>		<u>PAGE</u>
V	HHOB OPTICAL MODEL THEORY	
	5.1 Introduction	155
	5.2 Theory	157
	5.3 Calculations	172
	5.4 Results and Discussion ..	178
VI	SUMMARY AND CONCLUSIONS	186
	APPENDIX	194
	REFERENCES	198