

*** CONTENTS ***

ABSTRACT	i
* CHAPTER 1 *	
INTRODUCTION	1
1-1) Historical introduction to the optical model	1
1-2) Forms of the nuclear potentials	3
1-3) Ambiguities	4
1-3-1) Continuous ambiguities	5
1-3-2) Discrete ambiguities	6
1-4) Nucleons elastic scattering	6
1-5) Alpha-particles elastic scattering	10
1-6) Heavy-ions elastic scattering	15
1-7) Aim of the work	23
* CHAPTER 2 *	
MATHEMATICAL FORMULATION	24
* CHAPTER 3 *	
RESULTS AND DISCUSSION	32
3-1) Proton and antiproton elastic scattering	32
3-2) Alpha-particles elastic scattering	33
3-3) ^{12}C elastic scattering	36
FIGURES CAPTIONS	48
* APPENDICES *	
APPENDIX A : FOX-GOODWIN METHOD	81
APPENDIX B : FORTRAN PROGRAM	84
REFERENCES :	103