



CONTENTS

CHAPTER I. INTRODUCTION	1
CHAPTER II. ELECTROMAGNETIC MEASUREMENTS	4
2.1. Electron scattering	4
2.2. Other electromagnetic measurements	37
CHAPTER III. NUCLEAR MEASUREMENTS	57
3.1. High energy scattering of nucleons	59
3.2. Alpha-particle scattering and alpha-decay	67
3.3. Meson scattering	72
3.4. Absorption cross-sections at high energies	72
3.5. Scattering of low energy neutrons	78
CHAPTER IV. THE NUCLEAR SURFACE	83
4.1. Theories of the nuclear surface	83
4.2. Experimental evidence	89
CHAPTER V. CONCLUSIONS	99
APPENDIXES	101
A. Effect of neglect of electron mass	101
B. Scattering formalism for the Dirac equation at high energies	102
C. Evaluation of the Fermi integral	106
REFERENCES AND AUTHOR INDEX	109
SUBJECT INDEX	115