CONTENTS

| A summary | of t | the thesis | |
|-------------|------|--|-------|
| A note on | symt | pols | |
| Chapter 1 | : | Introduction and experimental aspects | · . 1 |
| Chapter 2 | : | High energy methods used in slow electron scattering | 35 |
| ° Chapter 3 | : | Elastic scattering of fast electrons by atoms | 92 |
| Chapter 4 | : | Elastic scattering of fast electrons by molecules | 177 |
| Chapter 5 | : | Inelastic scattering of fast electrons by Atoms and Molecules | 253 |
| Chapter 6 | : | Summary and conclusions | 350 |
| Appendix | | | 366 |
| References | | | |

List of publications

.