

CONTENTS

CHAPTER 1	BASIC PRINCIPLES OF CONTROLLED FUSION	1
CHAPTER 2	THE PROBLEM OF CONFINEMENT	15
CHAPTER 3	THE PINCH PROGRAM (PART I)	22
CHAPTER 4	THE STELLARATOR PROGRAM (PART I)	33
CHAPTER 5	THE MAGNETIC MIRROR PROGRAM (PART I)	51
CHAPTER 6	DEVELOPMENT OF OTHER PROJECTS (PART I)	65
CHAPTER 7	THE COORDINATION AND ADMINISTRATION OF THE SHER- WOOD PROGRAM (PART I)	75
CHAPTER 8	PLASMA DIAGNOSTICS	80
CHAPTER 9	THE QUESTION OF STABILITY	85
CHAPTER 10	THE PINCH PROGRAM (PART II)	90
CHAPTER 11	THE STELLARATOR PROGRAM (PART II)	106
CHAPTER 12	THE MAGNETIC MIRROR PROGRAM (PART II)	119
CHAPTER 13	THE MOLECULAR ION IGNITION PROGRAM	132
CHAPTER 14	THE CUSPED GEOMETRY PROGRAM	139
CHAPTER 15	SHOCK-WAVE EXPERIMENTS	143
CHAPTER 16	THE ASTRON PROGRAM	148
CHAPTER 17	DEVELOPMENT OF OTHER PROJECTS (PART II)	152
CHAPTER 18	COORDINATION AND ADMINISTRATION OF THE SHER- WOOD PROGRAM (PART II)	154
CHAPTER 19	SUMMARY AND OUTLOOK	161

APPENDIXES

APPENDIX I	SEVERAL FUNDAMENTAL TOPICS OF PHYSICS	172
APPENDIX II	LOW-TEMPERATURE FUSION	177
APPENDIX III	THERMONUCLEAR REACTIONS IN THE SUN AND OTHER STARS	179

APPENDIX IV	UNPROMISING APPROACHES	181
APPENDIX V	GLOSSARY OF TERMS	183
APPENDIX VI	GLOSSARY OF SYMBOLS	190
APPENDIX VII	PARTICIPATION IN SHERWOOD CONFERENCES	192
APPENDIX VIII	BIBLIOGRAPHY OF SELECTED READINGS	196
APPENDIX IX	PERSONS ASSOCIATED WITH THE SHERWOOD PROJECT	201
APPENDIX X	CHARTS GIVING DATA ON REPRESENTATIVE MODELS OF THE PINCH, STELLARATOR, AND MAGNETIC MIRROR PROGRAMS	207
INDEX		214