-	1	-

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

CHAPTER I	INTRODUCTION	1
CHAPTER I	DEVICE AND DIAGNOSTICS	
§ 2-1	Tokamak Configuration	8
§ 2-2	TNT-A Device	9
§2-3 Diagnostics		10
CHAPTER I	III PLASMA PROPERTIES OF NON-CIRCULAR PLASMA	
§ 3-1	MHD Equilibria of Non-Circular Plasma	
	3-1-1 Analysis of MHD Equilibria	11
	3-1-2 Effect of Decay Index on Elongation	14
	Ratio	
	3-1-3 Effect of Current Density Profile on	19
	Elongation Ratio	
§ 3-2	Dependence of Plasma Properties on Elongation	23
	Ratio	
CHAPTER I	CV CONTROL OF PLASMA SHAPE	
§ 4-1	Positional Instabilities	
	4-1-1 Stable Region and Growth Rate	26
	4-1-2 Analysis of Positional Instabilities	29

§ 4 – 2	Plasma	Shaping	
	4-2-1	Method of Shaping	40
	4-2-2	Experiments on Plasma Shaping	42
CHAPTER V	C	CONCLUSIONS	48
APPENDIX	A D	ETAIL DESCRIPTION OF DEVICE AND DIAGNOSTICS	54
	I	N TNT-A	
APPENDIX	в А	NALYSIS OF HORIZONTAL DISPLACEMENT	62
APPENDIX	C A	APPLICATION OF POSITIONAL INSTABILITIES	66
APPENDIX	D T	OKAMAK RESEARCH WITH NON-CIRCULAR	71
	C	CROSS SECTION	
REFERENCE	S		7 5
TABLE AND FIGURE CAPTIONS			85

TABLES AND FIGURES