

CONTENTS

CERTIFICATE

DECLARATION

ACKNOWLEDGEMENTS

SUMMARY

LIST OF SYMBOLS

CHAPTER	TITLE	PAGE
---------	-------	------

PART I GENERAL

1	GENERAL INFORMATION ON AMMONIUM HYDROGEN d-TARTARATE	1
2	TECHNIQUES & GRAPHICAL ANALYSIS	6

PART II

GROWTH, MORPHOLOGY & CHARACTERISATION

3	CRYSTAL GROWTH IN GEL	25
4	GROWTH OF SINGLE CRYSTALS OF AMMONIUM HYDROGEN d-TARTARATE (d-AHT)	48
5	CHARACTERISATION OF GROWN CRYSTAL OF d-AHT	64

CONTENTS

CHAPTER	TITLE	PAGE
---------	-------	------

PART 111

HARDNESS OF d-AHT CRYSTALS

6	GENERAL INFORMATION ON HARDNESS	78
7	HARDNESS OF d-AHT CRYSTALS	94
	i) APPLICATION OF MEYER'S LAW & KICK'S LAW	
	ii) HARDNESS OF d-AHT	
	iii) HARDNESS ANISOTROPY OF d-AHT	

PART 1V

8	GENERAL INFORMATION ON DISSOLUTION	132
9	CHEMICAL DISSOLUTION OF d-AHT CRYSTALS	144
10	CONCLUSIONS & FUTURE PLAN OF WORK	167