LIST OF TABLES

		Page No.
1.1	Manufacturers of rapamycin	12
2.1	Rapamycin production using different strains of Streptomyces	23
	hygroscopicus	
2.2	Advantages of airlift bioreactor and stirred tank bioreactor	30
2.3	HPLC methods for detection of rapamycin from the fermentation	43
	broth	
3.1	List of microorganisms obtained from different culture collections	46
3.2	List of equipments used for experiments	47
3.3	Software packages used for data processing and analysis	51
3.4	Composition of different carriers used for immobilization	63
3.5	Different models used for rheological studies	71
4.1	Five levels of media components concentrations used for CCD	74
4.2	Central Composite Design in coded units to study interactive	74
	effects of the significant parameters	
4.3	Model coefficient estimated by multiple linear regressions	76
4.4	Comparison of predicted and experimentally obtained GA result	80
	for concentration of rapamycin produced	
4.5	Determination of goodness of fit using R^2 values for growth,	89
	production and substrate consumption	
4.6	Determination of μ_{max} and x_0 at different initial mannose	91

concentration

4.7	Determination of production related kinetics at different initial	92
	mannose concentration	
4.8	Evaluation of production of rapamycin during stationary phase	95
4.9	A comparative table of fitting viscosity data into different	103
	rheological models	
4.10	Strategies for production of rapamycin	106
4.11	Comparison of kinetic parameters for rapamycin production in	119
	ALR and STR	
4.12	Kinetic parameters for rapamycin production in fed- batch mode	130
4.13	Percentage of rapamycin extracted from broth during purification	139
	steps	