LIST OF FIGURES

FIGUREPA		PAGE
2.1	Different state of fluidization occurring when a bed of particles is subjected	
	to increasing gas flow rate	16
2.2	Top-spray fluidized bed coater	21
2.3	Bottom-spray fluidized bed coater	23
2.4	Tangential or rotary fluidized bed coater	24
2.5	Horizontal fluid bed coater (top spray and continuous)	25
2.6	External mixing two-fluid nozzle	27
2.7	Collisions of coating solution droplet on particle surface	28
2.8	Coating layer growth (a) and agglomeration (b) during coating with	
	fluidized bed	30
2.9	Effect of particle sizes of the coating efficiency of top-spray fluidized coating	33
2.10	Effect of atomization air pressure on spray drying loss	34
2.11	Effect of atomization air pressure on bed temperature	35
2.12	Effect of bed temperature on coating efficiency	36
2.13	Effect of spray rate on coating efficiency	37
2.14	Variation in coating mass uniformity (a) uniform, thin coating layer;	
	(b)uniform, thick coating layer	38
2.15	Variation in coating morphology (a) uniformly coated particle;	
	(b) non uniformly coated particle; (c) coated particle with fissure	39
2.16	Fracture in coating surface (a) PVP coated particle	
	(b) hydrolysed gelatin coated particle	39

LIST OF FIGURES (CONTINUED)

FIGURE PAG		GE	
3.1	A schematic diagram of top-spray fluidized bed apparatus	44	
3.2	Sample of gallic acid standard curve	49	
3.3	Sample of BHA standard curve	51	
3.4	Sample of curcuminoids standard curve	52	
3.5	Scanning electron micrograph of fissuring feature of TECR at coating condition		
	of inlet air temperature of 60 $^{\circ}\mathrm{C}$ and spray rate of coating solution of 34 mL/min	56	
4.1	A schematic diagram of top-spray fluidized bed coating apparatus	68	
4.2	Moisture content of TECR at different operating conditions	77	
4.3	Relative humidity of inlet and outlet fluidizing air at different superficial air		
	velocities and atomization air pressure of 2 bar: (a) without Ra, (b) $Ra = 80\%$	78	
4.4	Feature of fissured TECR kernel	81	
4.5	Uncoated white rice kernels of TECR at different operating conditions	85	