PAT Toolbox

Process Train Coverage

		Currently Available PAT Technologies								Under Development	
		Near Infrared Spectroscopy	Turbidimetry	Refractometry	Viscosity	Focused Beam Reflectance Measurement	Ultra Violet Photometry	Laser Diffraction	Mass Spectroscopy	Mid Infrared Spectroscopy	Raman Spectroscopy
Process unit operations	Dispensing	(ii)									•
	Dissolution	(ii)	•	•	(ii)					•	•
	Suspension Prep.	•	•		(ii)	•				•	•
	Distillation	(ii)		•						•	(ii)
	Reaction	(ii)								•	•
	Crystallization	(ii)	•	•	(ii)	•				•	(ii)
	Column Reaction Purification			•			(ii)			•	•
	Wet-milling					•				•	(ii)
	Jet-milling							•			•
	Spray-Drying	•				(ii)		•			•
	Drying	(ii)							•		(1)
Process Development Steps	Familiarization										•
	Industrialization	(ii)	(ii)	(ii)	(ii)	(ii)		(ii)	•	•	•
	Scale-Up	(ii)	(ii)	(ii)	(ii)	(ii)		(ii)	•	(ii)	(ii)
	Commercial Mnfg. Start-Up	•	(ii)	•	(ii)	(ii)	(f)	(ii)	(ii)	•	(ii)
	Commercial Routine Mnfg	•	(ii)	•	(ii)		(ii)	(ii)	•	•	•
	Continuous Improvement	•				(ii)			•	•	•