CONTENTS

			Page
1.	Surface activity		
		·	1 1
			8
			12
			20
			28
	1.6	Modification of the surface properties of solids by adsorbed surfactants	34
2.	1.1 Amphipathic molecules 1.2 Surface activity in aqueous solution 1.3 Adsorption at liquid surfaces 1.4 Adsorption at solid surfaces 1.5 The wettability of solid surfaces 1.6 Modification of the surface properties of solids by adsorbed surfactants Phase behaviour of surfactants 2.1 Introduction 2.2 Liquid crystalline phases in binary surfactant systems 2.3 Liquid crystalline phases in ternary surfactant systems 2.4 Factors affecting phases behaviour 2.5 Quaternary phase systems Micellization 3.1 Introduction 3.2 Micellar Structure 3.3 Micellar shape 3.4 Polydispersity of micellar size 3.5 Factors affecting the CMC and micellar size 3.6 Thermodynamics of micelle formation 3.7 Kinetics of micelle formation 3.8 Non-micellar association 3.9 Micelle formation in non-aqueous solvents Surface activity and colloidal properties of drugs and naturally occurring substances 4.1 Colloidal properties of drugs 4.2 Some biological consequences of drug surface activity 4.3 Biological relevance of micelle formation by drug molecules 4.4 Naturally occurring micelle formers: the bile salts, phospholipids and related systems Solubilization 5.1 Introduction 5.2 Experimental methods of studying solubilization 5.3 Mobility of solubilizate molecules 5.4 Factors influencing solubilization 5.5 Effect of solubilizate on micellar properties 5.6 Solubilization in non-aqueous solvents Pharmaceutical aspects of solubilization 6.1 Introduction 6.2 Solubilization of drugs 6.3 Pharmaceutical aspects of solubilization in non-aqueous systems	40	
		40	
	2.2	Liquid crystalline phases in binary surfactant systems	40
	2.3	Liquid crystalline phases in ternary surfactant systems	46
	2.4	Factors affecting phases behaviour	51
	2.5	Quaternary phase systems	63
3.	Micell	lization	72
		Introduction	72
			73
	3.3	1	80
			85
			87
			98
			108
			111
	3.9	Micelle formation in non-aqueous solvents	114
4. Surface activity and colloidal prope		124	
			124
			162
		·	178
	4.4		
		phospholipids and related systems	185
5.			229
			229
	5.2	Experimental methods of studying solubilization	230
			257
			260
			280
	5.6	Solubilization in non-aqueous solvents	283
6.			
			293
		<u> </u>	295
			352
	6.4	Solubilization with block co-polymetic surfactants	355
	6.5	Polymer-Surfactant interactions	361
	6.6	Surfactant interactions with oppositely charged species	365
	6.7	Hydrotropy in pharmaceutical systems	370

7.	Biological implications of surfactant presence in formulation		
	7.1	Introduction	388
	7.2	Effect of surfactants on dissolution of drugs	390
	7.3	Effect of surfactants on membrane permeability	401
	7.4	Effect of surfactants on drug absorption	418
	7.5	Miscellaneous formulations and the influence of surfactants	444
	7.6	Surfactants and antibacterial activity	447
	7.7	Utilization of solubilization in drug delivery systems	460
8.	Emuls	The contract of surfactants on dissolution of drugs are consistent of surfactants on membrane permeability are consistent of surfactants on drug absorption scellaneous formulations and the influence of surfactants and antibacterial activity distants and antibacterial activity distants and antibacterial activity distants on solubilization in drug delivery systems are consistent of solubilization in drug delivery systems are consistent of surfactants and antibacterial activity delivery systems are consistent of surfactants on the adsorptive of emulsions are consistent of surfactants on the adsorptive capacity of suspensions are cological characteristics of suspensions are cological charact	469
	8.1	Introduction	469
	8.2	Aspects of emulsion stability	470
	8.3	Multiple emulsions	509
	8.4	Microemulsions	519
	8.5	Viscosity and rheological characteristics of emulsions	524
	8.6	Solute disposition in emulsion systems	534
	8.7	Biopharmaceutical aspects of emulsions	540
9.	Surfactants in suspension systems		
9.	9.1	Introduction	567
	9.2	Settling of suspended particles	567
	9.3	Suspension stability	568
	9.4	Effect of surfactants on the adsorptive capacity of suspensions	596
	9.5	Rheological characteristics of suspensions	597
	9.6	Crystal changes in suspensions	601
	9.7	Bacterial and other cell suspensions	607
10.	Aspects of surfactant toxicity		
	10.1	Introduction	614
	10.2	Metabolism of surfactants	615
	10.3	Interactions of surfactants with membranes and membrane components	619
	10.4	Toxicology of surfactants	649
	10.5	Surfactants and plant systems	678
11.	Reactivity in surfactant systems		
	11.1	Introduction	698
	11.2	Chemistry at interfaces	699
	11.3	Micellar reactions	699
	11.4	Stability of drugs in surfactant systems	739
	11.5	Stability of surfactant systems	748
	11.6	Polymerization of surface-active molecules	754
	11.7	Some analytical consequences of surfactant presence	763
	Index		779