

INDEX

	Contents	Page No.
Chapter 1	Introduction	
1.1	Background / Present Knowledge	001
1.2	Present therapy for Schizophrenia	001
1.3	Objectives of the present work	004
1.4	References	004
Chapter 2	Literature Review	
2.1	Schizophrenia and its therapy	005
2.2	Drug delivery to the brain	015
2.3	P – Glycoprotein	029
2.4	Poly lactide co-glycolide (PLGA) microspheres as drug delivery systems	048
2.5	Nanosuspensions as drug delivery systems	060
2.6	Solid lipid nanoparticles as drug delivery systems	069
2.7	References	081
Chapter 3	Drug Profiles	
3.1	Ziprasidone	097
3.2	Olanzapine	105
3.3	References	114
Chapter 4	Analytical Profiles	
4.1	Estimation of drugs using UV- Visible spectrophotometry	115
4.1.1	Estimation of Ziprasidone	115
4.1.2	Estimation of Olanzapine	118
4.1.3	Estimation of Rose Bengal	122
4.2	Fluorimetric estimation of Ziprasidone in plasma, and tissue homogenates	124

Chapter 5	Radiolabeling techniques	
5.1	Radiolabeling of pharmaceutical substances and its applications	130
5.2	Radiolabeling of olanzapine, olanzapine nanosuspension and olanzapine loaded solid lipid nanoparticle formulations	133
5.3	Results and discussion	134
5.4	References	140
Chapter 6	Formulation optimization and characterization of Ziprasidone loaded poly (lactide co -glycolide) microparticles	
6.1	Introduction	141
6.2	Materials and Methods	142
6.3	Results and Discussion	145
6.4	Conclusions	161
6.5	References	161
Chapter 7	Investigations on the in vivo performance of Ziprasidone loaded poly (lactide co -glycolide) microparticles	
7.1	Introduction	164
7.2	Experimental	165
7.3	Results and Discussion	166
7.4	Conclusions	170
7.5	References	171
Chapter 8	Formulation optimization and characterization of Ziprasidone nanosuspension	
8.1	Introduction	172
8.2	Materials and Methods	173
8.3	Results and Discussion	176
8.4	Conclusions	195
8.5	References	195

Chapter 9	Investigations on the in vivo performance of Ziprasidone nanosuspension	
9.1	Introduction	197
9.2	Experimental	197
9.3	Results and Discussion	198
9.4	Conclusions	203
9.5	References	203
Chapter 10	Formulation optimization and characterization of Olanzapine nanosuspension	
10.1	Introduction	205
10.2	Materials and Methods	206
10.3	Results and Discussion	209
10.4	Conclusions	225
10.5	References	225
Chapter 11	Investigations on the in vivo performance of Olanzapine nanosuspension	
11.1	Introduction	227
11.2	Experimental	228
11.3	Results and Discussion	229
11.4	Conclusions	236
11.5	References	236
Chapter 12	Formulation optimization and characterization of Olanzapine loaded Solid lipid nanoparticles – Effect of the lipid matrix on the drug entrapment and invitro release	
12.1	Introduction	239
12.2	Materials and Methods	240
12.3	Results and Discussion	244
12.4	Conclusions	263
12.5	References	263

Chapter 13	Formulation optimization and characterization of Olanzapine loaded Solid lipid nanoparticles – Effect of stabilizer on the particle size and stability	
13.1	Introduction	266
13.2	Materials and Methods	267
13.3	Results and Discussion	271
13.4	Conclusions	289
13.5	References	290
Chapter 14	Investigations on the Effect of the Stabilizer on the brain uptake of Olanzapine loaded Solid lipid nanoparticles	
14.1	Introduction	292
14.2	Experimental	295
14.3	Results and Discussion	297
14.4	Conclusions	313
14.5	References	314
Chapter 16	Summary and Conclusions	317