

List of Tables

Table No.	Description	Page No.
5.1	Correlation Coefficient (R^2) Values of PTX, Gen and their combination	49
5.2	HPLC validation parameters for the determination of pure drugs (Gen & PTX) and their combination in methanol	53
5.3	HPLC validation parameters for the determination of pure drugs (Gen & PTX) and their combination in plasma	54
5.4	Inter and Intraday accuracy and precision of all samples by HPLC	55
5.5	Inter and Intraday accuracy and precision for bioanalytical method validation by HPLC	56
5.6	Quality Target Product Profile (QTPP)	58
5.7	Control Impact Matrix	59
5.8	Critical Process parameters and material attributes	60
5.9	Risk Estimation Matrix	60
5.10	Details of factors used for Plackett Burman design	62
5.11	Statistical ANOVA based results of quadratic model & the quadratic equation generated by Design Expert®	65
5.12	Desirability approach based numerical optimization of various factors	72
5.13	Particles size, PDI, zeta potential & entrapment efficiency of optimized formulations.	78
5.14	Correlation coefficients & release exponent values for various release kinetics models during in vitro release kinetics from optimized NLC formulation	82
5.15	Pharmacokinetic parameters of pure drug suspensions (Gen & PTX, Gen+PTX) and their corresponding NLC formulations (A1, A2 & A3)	92
5.16	Plasma drug concentration (PDC) and time data of pure PTX , Gen and their corresponding formulations (A1 & A2)	93
5.17	Plasma drug concentration (PDC) and time data of pure PTX , Gen in pure drug combination and in combination formulation (A3)	94
5.18	Summary of 3 factor 3 level Box Behnken design	100
5.19	Statistical ANOVA based results of quadratic model	100

5.20	Box Behnken experimental design representing experimental runs with different combinations of input factors	100
5.21	Quadratic equation generated by Box Behnken Design	101
5.22	Desirability approach based numerical optimization of various factors	110
5.23	Particle Size, PDI, Zeta Potential & Entrapment Efficiency of optimized formulations.	116
5.24	Correlation coefficients & release exponent values for various release kinetics models during in vitro release kinetics from optimized nanoparticle formulation	120
5.25	Pharmacokinetic parameters of pure drug suspensions (Gen ,PTX & Gen+PTX) and their corresponding polymeric nanoparticles (B1, B2 &B3)	129
5.26	Plasma drug concentration (PDC) and time data of pure PTX, Gen and their corresponding formulations (B1 & B2)	131
5.27	Plasma drug concentration (PDC) and time data of pure PTX , Gen in pure drug combination and in combination formulation (B3)	131