LIST OF FIGURES

Figure No.	Title	Page No.
1.1	Tumor development from initial carcinogenesis to diffusion limited maximal size	7
2.1	Process of Angiogenesis	13
2.2	Angiogenesis balance	15
2.3	The angiogenic switch	18
2.4	The different steps in blood vessel formation	20
2.5	Tumor vessel normalization and tumor response	38
2.6	Schematic diagram showing nanotechnology applications in cancer	46
2.7	Schematics of different nanotechnology based drug delivery systems for cancer therapy	47
2.8	Pasive targeting, the EPR effect	49
2.9	Clearance and retention of nanoparticles in normal and tumor tissue	50
2.10	Active targeting	51
4.1	Absorptivity Scan of ET in Acetonitrile	94
4.2	Standard curve of ET in Acetonitrile	95
4.3	Absorptivity Scan of QD in Acetonitrile	95
4.4	Standard curve of QD in Acetonitrile	96
4.5	Absorptivity Scan of ET in pH 7.4 Phosphate Buffer	100
4.6	Standard curve of ET in pH 7.4 phosphate buffer	101
4.7	Absorptivity Scan of QD in pH 7.4 Phosphate Buffer	101
4.8	Standard curve of QD in pH 7.4 phosphate buffer	102
4.9	Effect of 0.3mg/ml BSA on stability of QD in pH 7.4 Phosphate buffer	104
5.1	Typical particle size distribution curve of ETN formulation	116
5.2	Typical particle size distribution curve of QDN formulation	116
5.3	Effect of amount of polymer on particle size and DEE of ETN and QDN	117
5.4	Effect of aqueous phase volume on particle size and DEE of ETN and QDN	117

Figure No.	Title	Page No.
5.5	Effect of surfactant concentration on particle size and DEE of ETN and QDN	118
5.6	Effect of Theoretical drug loading on particle size and DEE of ETN and QDN	118
5.7	Effect of organic phase volume on particle size and DEE of ETN and QDN	119
5.8	Typical zeta potential curve of ETN formulation	121
5.9	Typical zeta potential curve of QDN formulation	121
5.10	Transmission electron micrograph of ETN	122
5.11	Transmission electron micrograph of QDN	122
5.12	DSC curves of ET and ETN	123
5.13	DSC curves of QD and QDN	123
5.14	DSC curves of P, PN, ET, ETN, QD, and QDN	124
6.1	*In vitro* release profile of drugs in pH 7.4 phosphate buffer from ETN and QDN and the plain drugs ET and QD	137
6.2	Comparison of IC 50 values for various treatments	139
6.3	A549 Cell viabilities in % at 24 hrs for various treatments	140
6.4	A549 Cell viabilities in % at 48 hrs for various treatments	141
6.5	A549 Cell viabilities in % at 72 hrs for various treatments	141
7.1	% Injected dose of ^{99m}Tc-labeled complexes appearing in blood at various time points	149
7.2	Biodistribution of ^{99m}Tc-labelled complexes of ET and ETN at 2, 6 and 24 hrs	151
7.3	Biodistribution of ^{99m}Tc-labelled complexes of QD and QDN at 2, 6 and 24 hrs	151
7.4	Gamma camera images at 2, 6 and 24 hrs after i.p. injection of ^{99m}Tc-labeled complexes of ET, QD, ETN and QDN	152
7.5	Gamma scintigraphy images at 1 hr and 48 hr after s. c. injection near tumor location of 99mTc-labeled complexes of ETN and QDN	153
7.6	Comparison of tumor volumes in response to various treatments on 21st day	155

Figure No.	Title	Page No.
7.7	Tumor volumes after various treatments to B16F10 melanoma bearing mice	156
7.8	Photographs of excised B16F10 melanoma tumors	157
7.9	Photographs of B16F10 melanoma bearing mice treated with various treatments	158
7.10	Effect various of treatments on weight change in B16F10 melanoma bearing mice	159
7.11	Effect of various treatments on angiogenesis on 21st day	160
7.12	Tumor microvessel density (red colored spots) in tumor microsections after staining	161