List of Tables

Table	*Title*	*page*
2.1	Summary of some solar cells from all generations along with best solar cells and their respective photovoltaic parameters	*9*
2.2	Performance of some QDs absorber along with photovoltaic performance parameter with respective QDSSCs configuration. (FTO= Fluorine doped Tin oxide, S^{2-}-S_n^{2-} represents polysulfide electrolyte, FF= Fill factor, J_{sc}= current density, V_{oc}= open circuit voltage, RGO= Reduced graphene oxide, Pt= Platinum)	*12*
2.3	Summary of the some photoelectrodes material utilized as electron transport material for QDSSCs and their performance parameter along with electrode morphology	*13*
2.4	Performance of QDSSCs with different hole conductor utilized and their respective photovoltaic performance (FTO= Fluorine doped Tin oxide, S^{2-}-S^{n2-} represents polysulfide electrolyte, FF= Fill factor, Jsc= current density, Voc= open circuit voltage, MC= mesoporous carbon , Pt= Platinum)	*15*
2.5	Performance of QDSSCs prepared with different counter electrode material and their respective photovoltaic efficiencies (FTO= Fluorine doped Tin oxide, S^{2-}-S^{n2-} represents polysulfide electrolyte, FF= Fill factor, Jsc= current density, Voc= open circuit voltage, NP= Nano particle, Pt= Platinum)	*16*
5.1	Photovoltaic response parameters for CdTe sensitized electrodes with and without ZnS treatment	*47*
6.1	The summarized different transition metal doped QDs based solar cells with respective short circuit current density (J_{sc}), open circuit voltage (V_{oc}) and efficiency with relative improvement without transition metal doped QDs solar cells	*52*
6.2	The photovoltaic device parameters for different TM doped photoelectrodes	*57*
7.1	Summary of photovoltaic performance of zinc titanate mesoporous electrode A and B based	*67*