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## LIST OF ABBREVIATIONS

<b>PDs</b>	Photodetectors
<b>CTS</b>	Copper Tin Sulfide ( $\text{Cu}_2\text{SnS}_3$ )
<b>CB</b>	Conduction Band
<b>VB</b>	Valence Band
<b>0D</b>	Zero Dimensional
<b>1D</b>	One Dimensional
<b>2D</b>	Two Dimensional
<b>3D</b>	Three Dimensional
<b>XRD</b>	X-Ray Diffraction
<b>TEM</b>	Transmission Electron Microscopy
<b>SAED</b>	Selected Area Electron Diffraction
<b>EDX</b>	Energy Dispersive X-Ray
<b>SEM</b>	Scanning Electron Microscope
<b>AFM</b>	Atomic Force Microscopy
<b>DI</b>	Deionized
<b>HF</b>	Hydrogen Fluoride
<b>PVP</b>	Polyvinylpyrrolidone
<b>PMMA</b>	Poly(methyl methacrylate)
<b>CVD</b>	Chemical Vapor Deposition
<b>UV</b>	Ultraviolet
<b>Vis</b>	Visible
<b>NIR</b>	Near Infra Red



## LIST OF SYMBOLS

$E_g$	Band Gap
$h$	Plank' Constant
$\nu$	Frequency
$\lambda$	Wavelength
$c$	Speed of Light
$\mu_e$	Electron Mobility
$\mu_h$	Hole Mobility
$\epsilon$	Effective Dielectric Constant
$Ag$	Silver
$E_C$	Conduction Band
$E_V$	valence Band
$E_F$	Fermi Level
$\phi$	Work Function.
$\chi$	Electron affinity.
$k$	Boltzmann constant
$q$	Electronic Charge
$R$	Responsivity
$D$	Detectivity
$D^*$	Specific Detectivity
$\eta$	External Quantum Efficiency
$S$	Effective Illumination Area
$J_P$	Photo Current Density
$P_{opt}$	Optical Power Density