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## List of Symbols

$^{\circ}\text{C}$	Degree Celsius
K	Kelvin
$E_{\text{F}}$	Fermi level energy
T	Temperature
$E_{\text{a}}$	Activation energy
MHz	Mega hertz

## List of Symbols

### *Greek symbols*

$\Omega$	Ohm
k	Boltzmann constant
$\sigma_{\infty}$	Conductivity pre-factor
$1/\gamma$	Localization radius

## List of Symbols

### List of Abbreviations

PV	Photovoltaic
a-Si	Amorphous silicon
c-Si	Crystalline silicon

IC	Integrated circuits
eV	Electron volts
a-Si:H	Amorphous hydrated silicon
PECVD	Plasma enhance chemical vapor deposition
nc-Si:H	Nano-crystalline hydrated silicon
$\mu$ c-Si:H)	Micro-crystalline hydrated silicon
DC	Direct current
Ge	Germanium
VRH	Variable Range Hopping
MPH	Multi Phonon Hopping
LP	Localization parameter
CPM	Constant current method
PDS	Photo thermal deflection spectroscopy
PH <sub>3</sub>	Phosphine
B <sub>2</sub> H <sub>6</sub>	Diborane
SiH <sub>4</sub>	Silane
GD	Glow discharge
MHz	MHz=Mega hertz
SWE	Staebler-Wronsky Effect
RF	Radio frequency
Ar	Argon