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Abbreviations

MNPs	Metal nanoparticles
LSPR	Localized surface plasmon resonance
NMNPs	Non-metallic nanoparticles
Au	Gold
Ag	Silver
Cu	Copper
Pt	Platinum
Pd	Palladium
SnO ₂	Tin Oxide
TiO ₂	Titanium dioxide
ZnO	Zinc oxide
Ag ₂ S	Silver Sulfide
Cu ₂ S	Copper Sulfide
WS ₂	Tungsten sulfide
MoS ₂	Molybdenum oxide
PbS	Lead sulfide
CdS	Cadmium sulfide
CdSe	Cadmium selenide
Fe ₂ O ₃	Iron oxide
EM	Electromagnetic
SPR	Surface plasmon resonance
SPPs	Surface plasmon polaritons

LSPs	Localized surface plasmons
NIR	Near infrared region
SERS	Surface Enhanced Raman Spectroscopy
fs	femtoseconds
ps	picoseconds
ns	nanoseconds
DOS	Density of states
E_F	Fermi energy
Φ_{SB}	Schottky barrier
HTL	Hole transport layer
Φ_M	Metal work-function
χ_s	Semiconductor electron mobility
EQE	External quantum efficiency
TCF	Transparent conductive film
ITO	Indium tin oxide
CNTs	Carbon nanotubes
ROSs	Reactive oxygen species
ICMO	Ion-conducting metal oxide
LTO	$Li_4Ti_5O_{12}$
XRD	X-Ray Diffraction
CB	Conduction Band
PVD	Physical Vapor Deposition
THR	Transparent Heat Reflector

M-S-M	Metal-semiconductor-metal
POSCs	Plasmonic Organic Solar Cells
ETL	Electron transport layer
PCE	Power conversion efficiency
R6G	Rhodamine 6G
I-V	Current-voltage
I-t	Current-time
PMMA	Polymethyl methacrylate
P3HT	Poly(3-hexylthiophene)
PC ₇₁ BM	[6,6]-phenyl-C ₇₁ -butyric acid methyl ester
PEDOT:PSS	Poly(3,4-ethylenedioxythiophene) polystyrene sulfonate
2-MEA	2-methoxy ethanol
DI	Distilled water
n ⁺ -Si	n-doped silicon
GIXRD	Grazing incidence X-ray diffraction
PL	Photoluminescence Spectra
AFM	Atomic force microscopy
HR-SEM	High resolution scanning electron microscopy
EDX	Energy dispersive x-ray spectroscopy
HR-TEM	High resolution transmission electron microscopy
Φ _b	Barrier Height
η	Ideality factor
J-V	Current density-voltage

V_{oc}	Open circuit voltage
J_{sc}	Short circuit current density
IQE	Internal quantum efficiency
FTO	Fluorine tin oxide
SAED	Selected area diffraction pattern
TC	Transparent conductor
P_c	Percolation threshold
P	Percolation
P_∞	Percolation probability
BHJ	Bulk Heterojunction
OPVs	Organic photovoltaics
OSCs	Organic solar cells
CT	Charge transfer
VB	Valance band
HOMO	Highest occupied molecular orbital
LUMO	Lowest unoccupied molecular orbital