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List of Abbreviations

Abbreviation	Description
(Ni ₈₇ Fe ₄ Cr ₉) ₇₈ Si ₈ B ₁₄	Nickel, Iron, Chromium, Silicon, Boron composition
ACDB	AC Distribution Board
ADP	Abiotic Depletion Potential
AEP	Annual Energy Production
Ag/AgCl	Silver-Silver Chloride
AJB	Array Junction Box
AMF	Auto Mains Failure Panel
AP	Acidification Potential
α -Ni(OH) ₂	Alpha-Nickel(II) Hydroxide
β -Ni(OH) ₂	Beta-Nickel(II) Hydroxide
BOQ	Bill of Quantity
CAGR	Compound Annual Growth Rate
CA	Chronoamperometry
CAPEX	Capital Expenditures
Cdl	Double-Layer Capacitance
CE	Counter Electrode
CH ₄	Methane
CIGS	Copper Indium Gallium Selenide
CRF	Capital Recovery Factor
CS	Specific Capacitance
CSIR	Council of Scientific and Industrial Research
CUF	Capacity Utilization Factor
CV	Cyclic Voltammetry
DMFC	Direct Methanol Fuel Cell
DHI	Diffused Horizontal Irradiance
DISCOMS	Distribution Companies
DNI	Direct Normal Irradiance
DPV	Differential Pulse Voltammetry
DR	Discount Rate
ECSA	Electrochemical Surface Area
EIS	Electrochemical Impedance Spectroscopy
EP	Eutrophication Potential
EPBT	Energy Payback Time
EPF	Energy Production Factor

Abbreviation	Description
FAETP	Freshwater Aquatic Ecotoxicity Potential
F	Faraday Constant
FWHM	Full Width at Half Maximum
Γ	Electrochemically Accessible Area
GHI	Global Horizontal Irradiance
GOI	Government of India
GW	Gigawatt
GWP	Global Warming Potential
HC/HTP	Human Toxicity Potential
HER	Hydrogen Evolution Reaction
Hg/HgO	Mercury/Mercuric Oxide
HOR	Hydrogen Oxidation Reaction
HT	High Tension
HVAC	Heating Ventilation and Air Conditioning
ICSD	Inorganic Crystal Structure Database
INDC	Intended Nationally Determined Contribution
i	Current Density
i_0	Exchange Current Density
IRR	Internal Rate of Return
ISRO	Indian Space Research Organisation
JCPDS	Joint Committee on Powder Diffraction Standards
kWp	Kilowatt Peak
KOH	Potassium Hydroxide
LCA	Life Cycle Assessment
LCCE	Life Cycle Conversion Efficiency
LSV	Linear Sweep Voltammetry
LT	Low Tension
MAETP	Marine Aquatic Ecotoxicity Potential
MeOH	Methanol
MNRE	Ministry of New and Renewable Energy
MOR	Methanol Oxidation Reaction
MPP	Maximum Point of Power
MPPT	Maximum Power Point Tracking
MSL	Mean Sea Level
MSME	Micro Small and Medium Scale Enterprises
mV	Millivolt
mV dec ⁻¹	Millivolts per Decade

Abbreviation	Description
MWh	Megawatt-hour
μF	Microfarad
μm	Micron
NAPCC	National Action Plan for Climate Change
NH_3	Ammonia
NIWE	National Institute of Wind Energy
NO_x	Oxides of Nitrogen
NPV	Net Present Value
ODP	Ozone Depletion Potential
OER	Oxygen Evolution Reaction
OGRTS	On-Grid Rooftop System
OGRTS	On-Grid Rooftop Solar PV Power Plant
ORR	Oxygen Reduction Reaction
PEC	Photo-Electrochemical
PEM	Proton Exchange Membrane
PF	Power Factor
POCP	Photochemical Ozone Creation Potential
PPA	Power Purchase Agreement
PR	Performance Ratio
PV	Photovoltaic
PV/T	Photovoltaic-Thermal
PVE	Photovoltaic-Electrolysis
RCC	Reinforced Cement Concrete
R	Gas Constant
R_{ct}	Charge Transfer Resistance
RDM	Redox Mediator
RE	Reference Electrode
RE	Renewable Energy
RHE	Reversible Hydrogen Electrode
ROI	Return on Investment
R_s	Solution Resistance
RTS	Rooftop Solar
SAED	Selected Area Electron Diffraction
SEM	Scanning Electron Microscopy
SEM-EDS	Scanning Electron Microscopy–Energy Dispersive X-ray Spectroscopy
SLD	Single Line Diagram

Abbreviation	Description
SPV	Solar Photovoltaic
STC	Standard Test Condition
TEM	Transmission Electron Microscopy
TETP	Terrestrial Ecotoxicity Potential
TOF	Turnover Frequency
UNFCC	United Nations Framework Convention on Climate Change
WE	Working Electrode
W _p	Watt Peak
XPS	X-ray Photoelectron Spectroscopy
XRD	X-ray Diffraction