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**Abbreviations and symbols**

0D	Zero Dimensional
1D	One Dimensional
2D	Two Dimensional
3D	Three Dimensional
UV	Ultra-violet
CNT	Carbon nanotubes
CVD	Chemical vapor deposition
GO	Graphene Oxide
rGO	Reduced graphene oxide
GQD	Graphene quantum dot
hBN	Hexagonal Boron Nitride
BNNT	Boron Nitride Nanotube
BNNS	Boron Nitride Nanosheet
PLD	Pulse Laser Deposition
BCN	Boron Carbon Nitride
ILD	Interlayer Dielectrics
FET	Field Effect Transistor
LOD	Limit of Detection
WE	Working Electrode

## Abbreviations and symbols

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RE	Reference Electrode
CE	Counter Electrode
SPE	Screen-Printed Electrode
LIB	Lithium-ion Battery
SIB	Sodium-ion Battery
SHE	Standard Hydrogen Electrode
SEI	Solid Electrolyte Interphase
SMB	Sodium Metal Battery
PP	Polypropylene
PAD	Peripheral Artery Disease
BSA	Bovine Serum Albumin
UV-Vis	Ultraviolet Visible
FTIR	Fourier Transform Infrared
CCD	Charged Coupled Device
PMT	Photomultiplier Tube
XRD	X-ray Diffraction
XPS	X-ray Photoelectron Spectroscopy
SEM	Scanning Electron Microscope
TEM	Transmission Electron Microscope
CV	Cyclic Voltammetry

DPV	Differential Pulse Voltammetry
EIS	Electrochemical Impedance Spectroscopy
OCV	Open Circuit Voltage
DLS	Dynamic Light Scattering
SLS	Static Light Scattering
TRP	Tryptophan
DI	Deionized Water
ITO	Indium Tin Oxide
PB	Phosphate Buffer
BNB	Boron Nitride Bulk
BNNP	Boron Nitride Nanoplatelets
PVDF	Poly (vinylidene fluoride)
NMP	N-methyl-2- pyrrolidone
PC	Propylene Carbonate
FEC	Fluoroethylene Carbonate
STZ	Streptozotocin
DMSO	Dimethyl sulfoxide anhydrous
FBS	Fetal Bovine Serum
PDI	Polydispersity Index
LVR	Linear Viscoelastic Range

## Abbreviations and symbols

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WRR	Water Retention Ratio
OD	Optical Density
MTT	3-(4, 5-dimethylthiazolyl-2)-2, 5-diphenyltetrazolium bromide
GCE	Glassy Carbon Electrode
gCN	Graphitic Carbon Nitride
EDS	Energy Dispersive X-ray Spectroscopy
DA	Dopamine
UA	Uric Acid
HX	Hypoxanthine
DFT	Density Functional Theory
TGA	Thermogravimetric Analysis
CE	Coulombic Efficiency

A	Absorbance
I	Intensity
c	Concentration
l	Path length
$\epsilon$	Molar absorptivity
$\lambda$	Wavelength
d	Interplanar distance
$\theta$	Angle of incidence
$E_B$	Binding Energy
h	Planck constant
$\nu$	Frequency
$E_k$	Kinetic energy of photoelectron
$\Phi$	Work function of metal
Z	Impedance
V	Voltage
I	Current
S	Swelling Ratio
w	Weight
$\sigma$	Conductivity

## Abbreviations and symbols

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a	Cross-sectional area
R	Resistance
$R_{ct}$	Resistance of charge transfer
$E_p$	Peak Potential
v	Scan rate