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## Abbreviation

<b>ADB</b>	2-aminoethyl diphenyl borate
<b>AFM</b>	Atomic force microscopy
<b>ASTM</b>	American standard of testing machine
<b>CCO</b>	Calcium-doped ceria
<b>CF<sub>3</sub>COOH</b>	Trifluoroacetic acid
<b>CNMs</b>	Carbon nanomaterials
<b>CNTs</b>	Carbon nanotubes
<b>COF</b>	Coefficient of friction
<b>CQDs</b>	Carbon quantum dots
<b>CS</b>	Carbon spheres
<b>CuPc</b>	Copper (II) phthalocyanine
<b>DLC</b>	Diamond-like carbon
<b>DRS</b>	UV-visible diffuse reflectance spectra
<b>EDS</b>	Energy Dispersive X-ray Spectrometry
<b>FBT</b>	Four ball tester

<b>FE-SEM</b>	Field emission-Scanning electron microscopy
<b>FTIR</b>	Fourier transforms infrared spectroscopy
<b>GO</b>	Graphene oxide
<b>GQDs</b>	Graphene quantum dots
<b>h-BN</b>	Hexagonal boron nitride
<b>LAMMPS</b>	Large-scale Atomic/Molecular Massively Parallel
<b>MAPS</b>	Materials and Processes Simulations Platform
<b>MD</b>	Molecular dynamics
<b>MEMS</b>	Micro-electro-mechanical systems
<b>MNDO</b>	Modified Neglect of Diatomic Overlap
<b>MoS<sub>2</sub></b>	Molybdenum disulfide
<b>MWD</b>	Mean wear scar diameter
<b>MWV</b>	Mean wear scar volume
<b>NEMS</b>	Nano-electro-mechanical systems
<b>NPs</b>	Nanoparticles
<b>NTs</b>	Nanotubes
<b>PANI</b>	Polyaniline

<b>Pc</b>	Phthalocyanine
<b>PEG</b>	Polyethylene glycol
<b>PO</b>	Paraffin oil
<b>QDs</b>	Quantum dots
<b>RDF</b>	Radial distribution functions
<b>rGO</b>	Reduced graphene oxide
<b>SAED</b>	Surface area electron diffraction
<b>SDS</b>	Sodium dodecyl sulfate
<b>SEM</b>	Scanning electron microscopy
<b>TEM</b>	Transmission electron microscopy
<b>TLC</b>	Thin layer chromatography
<b>UV-Vis</b>	Ultra violet visible Spectroscopy
<b>V-ZnO</b>	Vanadium-doped zinc oxide
<b>WS<sub>2</sub></b>	Tungsten disulfide
<b>XPS</b>	X-ray Photoelectron Spectroscopy
<b>XRD</b>	X-ray diffractometer
<b>ZCO</b>	Cerium-doped zirconia

<b>ZDDP</b>	Zinc dialkyldithiophosphate
<b>ZMO</b>	Magnesium-doped zinc oxide
<b>ZnO</b>	Zinc oxide

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