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## List of Abbreviations

| | |
|---|---|
| A | Ampere |
| AC | Alternating current |
| ACh | Acetylcholine |
| AChE | Acetylcholinesterase |
| Ag–Ab | Antigen–antibody |
| Ag/AgCl | Silver/Silver chloride reference electrode |
| ALP | Alkaline phosphatase |
| AP | Acid phosphatase |
| Ar% | Percent residual activity |
| Au | Gold |
| BCh | Butyrylcholine |
| BChE | Butyrylcholinesterase |
| C | Carbon |
| CA | Chronoamperometry |
| CDNB | 1-Chloro-2,4-dinitrobenzene |
| CL | Chemiluminescence |
| cm | Centimeter |
| $cm^{-1}$ | Per centimeter |
| CNS | Central nervous system |
| CNTs | Carbon nanotubes |
| conc. | Concentration |
| CPs | Conducting polymers |
| CV | Cyclic voltammetry |

| | |
|---|---|
| $^{0}$ C | Degrees Celsius |
| DDT | Dichloro diphenyl trichloroethane |
| DNA | Deoxyribonucleic acid |
| DPV | Differential pulse voltammetry |
| E | Enzyme |
| ECD | Electron capture detector |
| EIS | Electeochemical impedance spectroscopy |
| ELISA | Enzyme-linked immunosorbent assay |
| EPA | Environmental protection agency |
| ES | Enzyme substrate complex |
| EtOH | Ethanol |
| ε | Catalytic efficiency |
| FID | Flame ionization detector |
| FIR | Far infrared |
| FL | Fluorescence |
| FPD | Flame photometric detector |
| FTIR | Fourier transformed infrared |
| g | Gram |
| GC | Gas chromatography |
| Gel | Gelatin |
| Glut | Gluteraldehyde |
| GO | Graphene oxide |
| GOD | Glucose oxidase |
| GSH | Glutathione |
| GST | Glutathione S-transferase |

| | |
|---|---|
| hr | Hour |
| HPLC | High performance liquid chromatography |
| Hz | Hertz |
| I | Current |
| IA | Immunoassay |
| $i_{max}$ | Maximum current |
| I % | Inhibition degree or percentage inhibition |
| $k_{cat}$ | Turnover frequency or catalytic constant |
| KCl | Potassium chloride |
| $K_i$ | Dissociation constant |
| $K_m^{app}$ | Apparent Michaelis-Menten constant |
| LOD | Limit of detection |
| M | Molar |
| MeOH | Methanol |
| MHz | Megahertz |
| µA | Micro ampere |
| MIR | Mid infrared |
| mL | Milliliter |
| mM | Millimole |
| $mmolL^{-1}$ | Millimole per litre |
| MS | Mass spectrometry |
| MSD | Mass spectrometry detector |
| mV/s | Millivolt per second |
| NIR | Near infrared |
| nm | Nano meter |

| | |
|---|---|
| NPD | Nitrogen and phosphorus detector |
| OCs | Organocarbamates |
| OCPs | Organochlorine pesticides |
| OPH | Organophosphorus hydrolase |
| OPs | Organophosphates |
| OTP | Organothiophosphate |
| PB | Phosphate buffer |
| pH | Acidity or alkalinity of a solution |
| ppb | Parts per billion |
| Pt | Platinum |
| QuEChERS | Quick, easy, cheap, effective, rugged, safe |
| $R_{ct}$ | Charge transfer resistance |
| Ref. | Reference |
| RSD | Relative standard deviation |
| s | Second |
| S | Substrate |
| SEM | Scanning electron microscope |
| $S_N2$ | Substitution, nucleophilic, bimolecular |
| t | Time |
| UV | Ultra violet |
| UV-VIS | Ultra violet visible |
| V | Volt |
| $V_{max}$ | Maximal rate |
| WHO | World health organization |
| XRD | X-ray diffraction |