

Sr. #	Description/Specifications/Cat/Part No	Qty Required
	Cyclic Voltammetry Workstation (Potentiostat / Galvanostat) having following specs: Potentiostat - Potential control range: $\pm 10\text{V}$ - Current control range: $\pm 2\text{A}$ - Potential control accuracy : $0.1\% \times \text{full range} \pm 1\text{mV}$ - Current control accuracy : $0.1\% \times \text{full range}$ - Potential resolution : $10\mu\text{V}$ ($>100\text{Hz}$), $3\mu\text{V}$ ($<10\text{Hz}$) - Current sensitivity : 1pA - Rise time : $<1\mu\text{s}$ ($<10\text{mA}$), $<10\mu\text{s}$ ($<2\text{A}$) - Reference electrode input impedance : $10^{12}\Omega 20\text{pF}$ - Current range : $2\text{nA} \sim 2\text{A}$, 10 ranges - Compliance voltage : $\pm 21\text{V}$ - Maximum current output : 2.0A - CV and LSV scan rate : $0.001\text{mV} \sim 10,000\text{V/s}$ - CA and CC pulse width : $0.0001 \sim 65,000\text{s}$ - Current increment during scan : $1\text{mA} @ 1\text{A/ms}$ - Potential increment during scan : $0.076\text{mV} @ 1\text{V/ms}$ - SWV frequency : $0.001 \sim 100\text{kHz}$ - DPV and NPV pulse width : $0.0001 \sim 1000\text{s}$ - AD data acquisition : $16\text{bit}@1\text{MHz}$, $20\text{bit}@1\text{kHz}$ - DA Resolution : 16bit, setup time : $1\mu\text{s}$ - Minimum potential increment in CV : 0.075mV - IMP frequency : $10\mu\text{Hz} \sim 1\text{MHz}$ - Low-pass filters: Covering 8-decade - Potential and current range: Automatic Electrochemical impedance signal generator - Frequency range : $10\mu\text{Hz} \sim 1\text{MHz}$ - AC amplitude : $1\text{mV} \sim 2500\text{mV}$ - DC Bias : $-10 \sim +10\text{V}$ - Output impedance : 50Ω - Waveform: sine wave, triangular wave and square wave - Wave distortion : $<1\%$ - Scanning mode : Logarithmic /linear, increase/decrease Signal analyzer - Integral time : minimum : 10ms or the longest time of a cycle - Maximum : 10^6 cycles or 10^5s - Measurement delay : $0 \sim 10^5\text{s}$ - DC offset compensation - Potential automatic compensation range: $-10\text{V} \sim +10\text{V}$ - Current compensation range : $-1\text{A} \sim +1\text{A}$ - Bandwidth : 8-decade frequency range, Automatic and manual setting - Operating Power: $200\text{--}220\text{ VAC}$, $50/60\text{ Hz}$ Desktop computer and Software requirement - Communications Interface: isolated Universal Serial Bus (USB 2.0 or later) - Accessories: Desktop Computer Core i7 7th-Gen with DVD R/W and Windows 10 OS - GPIO interface and related data acquisition software of the instrument. - Data Processing and analysis software After sale service: 02 years Extended warranty of 03 years.	01