



Experiments

- Cyclic Voltammetry
- Linear Scan
- Chrono Amperometry
- Chrono Potentiometry
- Charge-Discharge cyc

Potentiostat-Galvanostat Model PG12110

Potentiostat Mode	
Applied Potential	±5.000V
Potential resolution	1.0mV
Accuracy	±0.05% of full scale voltage
Output compliance	±12V
Noise and ripple	<0.2mV rms
Slew rate	6V/μs
Rise time	10% to 90% with 10k Load: <8μs
Voltage sweep range	1mV/sec to 1000mV/sec

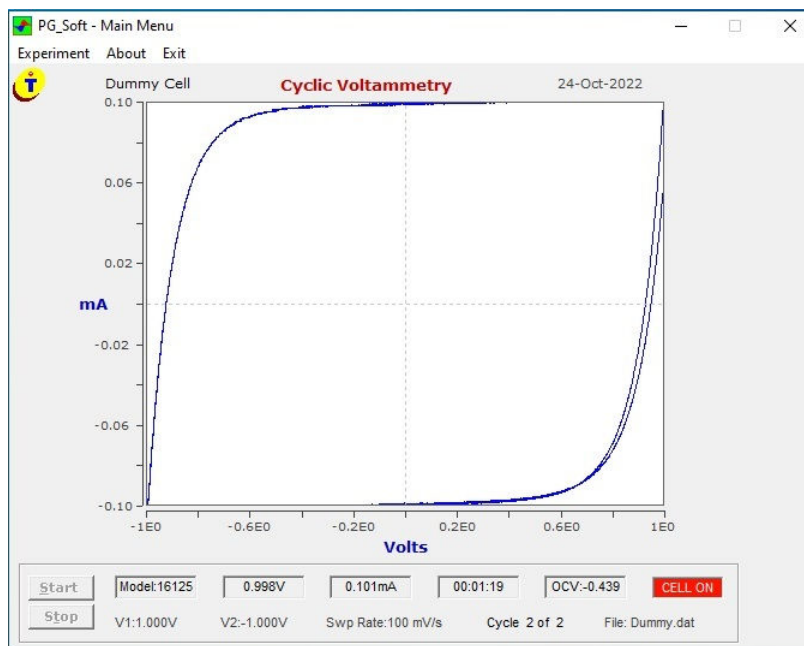
Technical Specifications

Galvanostat Mode	
Applied current	50μA – 100mA in 8 ranges
Extended Current Range	500mA (Optional model)
Current resolution	12.2nA – 24.4μA
Accuracy	±0.05% of full scale current
Noise and ripple	<0.2mV rms
Rise time	<0.2mV
Slew rate	<8μs
Time per point	200μs
Max No. of data points	10000

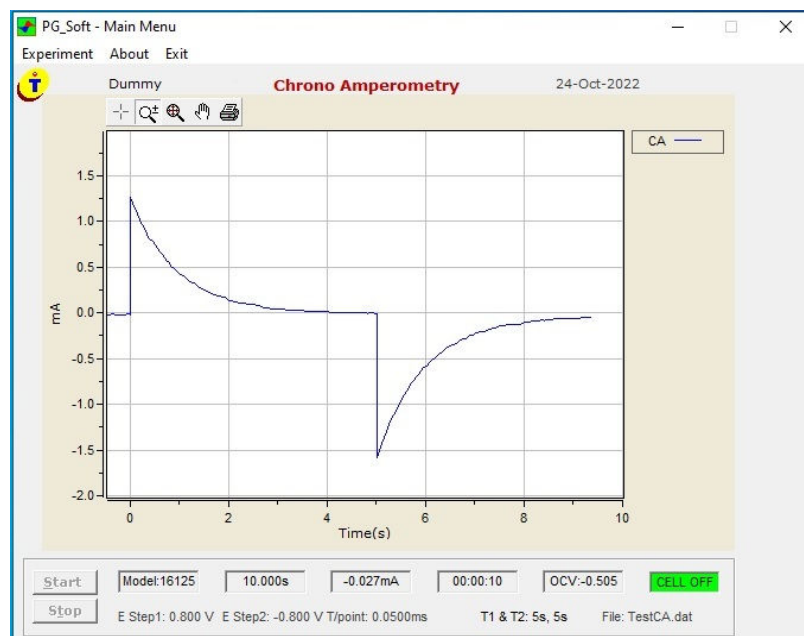
Other Specifications

Computer Requirements	IBM PC compatible, Pentium 1.6GHz upward, 128MB RAM, 1MB disk space for the PGstat program, one USB port. Operating system: Windows 7
PGSoft Software Ver2.5	Control software to set, run, acquire and store data into PC. Online plot and ASCII file facility. Data analysis program Will not be supplied.
Power Requirements	AC 230V, 30W
Accessories supplied	One cell cable, One serial interface cable, One AC Mains cable And PG_Soft software program

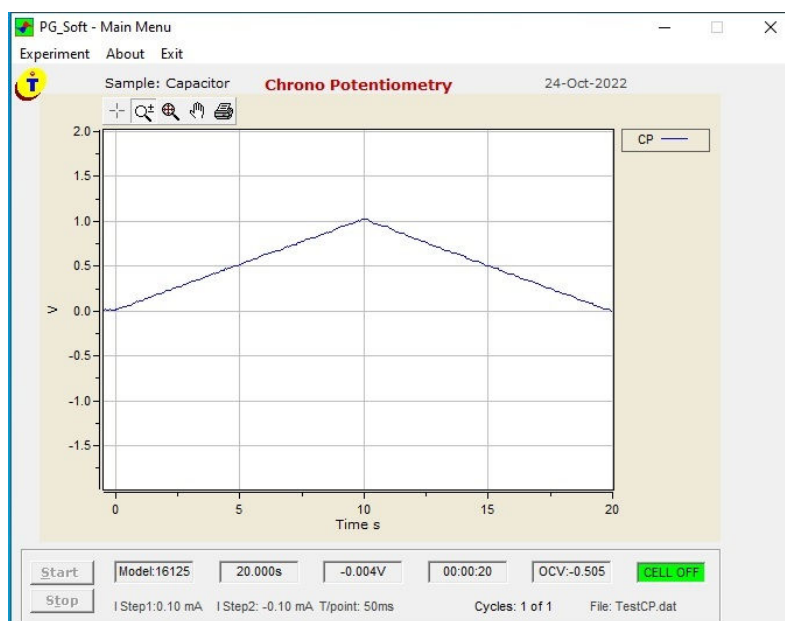
Sample Plots



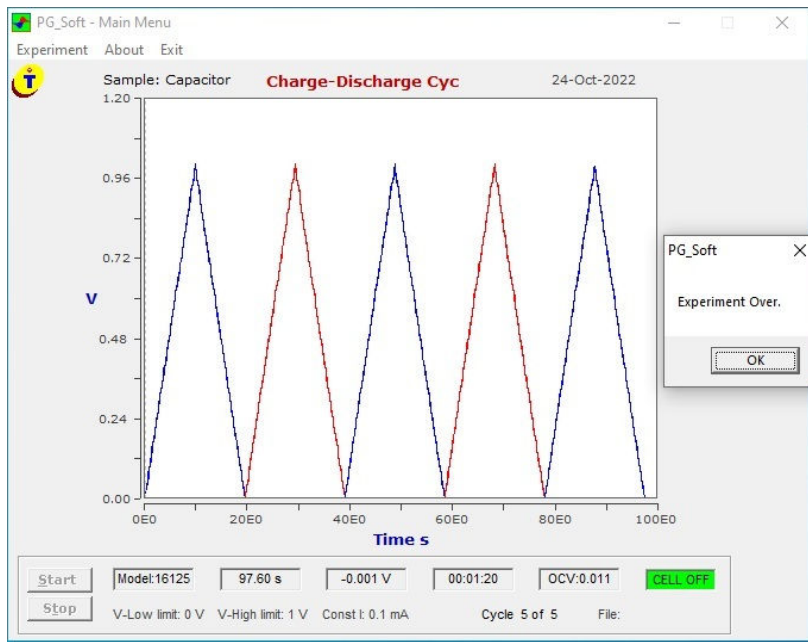
Cyclic Voltammetry plot of dummy cell



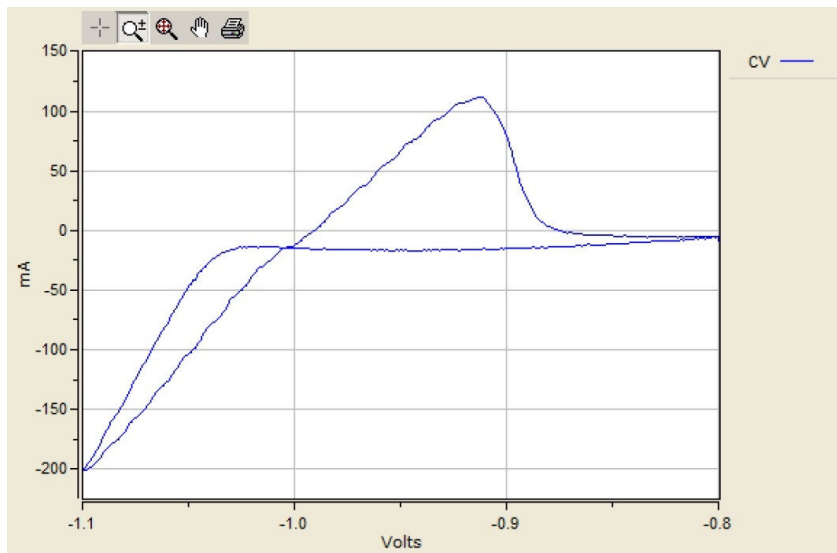
Chrono Amperometry plot of dummy cell



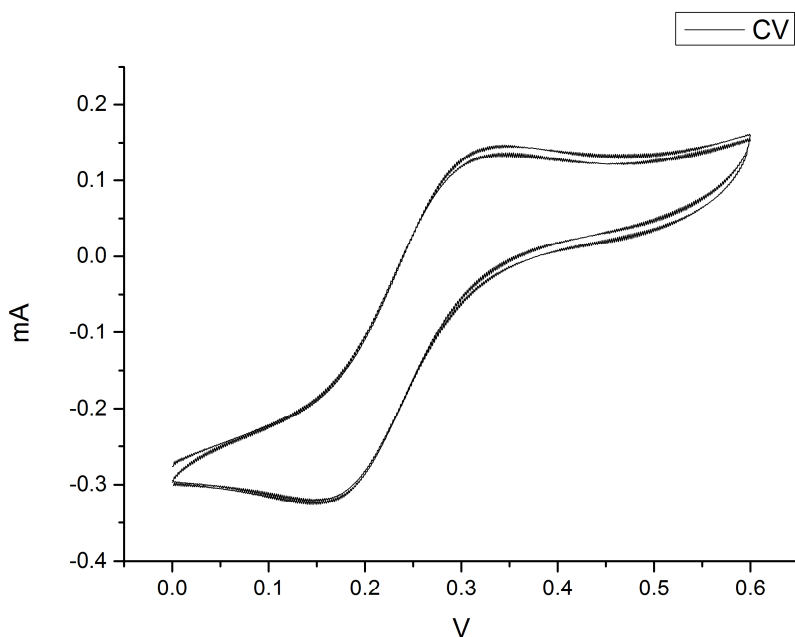
Chrono Potentiometry of electrolytic capacitor 1000µF



Charge-Discharge of a capacitor (2F/5V)



Zinc electrowinning plot



Plotted using Origin software by importing ascii data from **cyclic voltammetry** experiment of potassium ferro cyanide. Reference electrode used was Ag-AgCl

**LIST OF THE INSTITUTIONS TO WHOM WE HAVE SUPPLIED POTENTIOSTAT-
GALVANOSTAT**

Sl. No.	Instrument Description	Institute	Person
1	Potentiostat/Galvanostat 100mA	Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bangalore	Prof. CNR Rao
2	Potentiostat/Galvanostat 100mA	Chemical Engineering, Indian Institute of Science, Bangalore	Prof. Giridhar Madras
3	Potentiostat/Galvanostat 100mA	Solid State & Structural Chemistry Unit, Indian Institute of Science, Bangalore	Prof. M.S. Hegde
4	Potentiostat/Galvanostat 100mA	Jawaharlal Nehru Centre for Advanced Scientific Research, Jakkur, Bangalore	Prof. G.U. Kulkarni
5	Potentiostat/Galvanostat 100mA	Solid State & Structural Chemistry Unit, Indian Institute of Science, Bangalore	Dr. Govindraj
6	Potentiostat/Galvanostat 100mA	Solid State & Structural Chemistry Unit, Indian Institute of Science, Bangalore	Prof. Nataraj
7	Potentiostat/Galvanostat 500mA	Jain University, Bangalore	Dr. Chandrasekhar Raut
8	Potentiostat/Galvanostat 500mA	Jain University, Bangalore	Dr. Nataraj
9	Potentiostat/Galvanostat 500mA	Jain University, Bangalore	Dr. Nagaraj
10	Potentiostat/Galvanostat 100mA	Al Ameen College, Bangalore	Dr. Shahin Taj
11	Potentiostat/Galvanostat 100mA	Tumkur University	Dr. Ramesh S
12	Potentiostat/Galvanostat 100mA	Berhampur University, Odisha	Dr. Kusha Kumar
13	Potentiostat/Galvanostat 500mA	Hindustan Zinc Limited, Rajasthan	Dr. Uday Agarwal
14	Potentiostat/Galvanostat 100mA	IIT – Bhubaneswar, Odisha	Dr. Satchidananda Rath
15	Potentiostat/Galvanostat 100mA	Delhi Technological University, Delhi	Dr. Jay Singh
16	Potentiostat/Galvanostat 100mA	University of Delhi, New Delhi	Dr. Manish Srivastava
17	Potentiostat/Galvanostat 100mA	CSIR Institute of Minerals and Materials Technology, Bhubaneswar	Dr. Bikash
18	Potentiostat/Galvanostat 100mA	Central College, Bangalore University, Bangalore	Dr. P.V.Kamath
19	Potentiostat/Galvanostat 100mA	Talent Development Centre, IISc, Challakere	Dr. Jugeshwar Singh