

CS2020B/CS2040B/CS2100B Current Booster

Single-channel potentiostat (CS350M/ CS310M/ CS300M etc) can achieve maximum $\pm 2A/10V$ output when it's used alone. This value is $\pm 1A/10V$ for each channel of bipotentiostat (CS2350M/CS2150M) and multichannel potentiostat (CS310X).

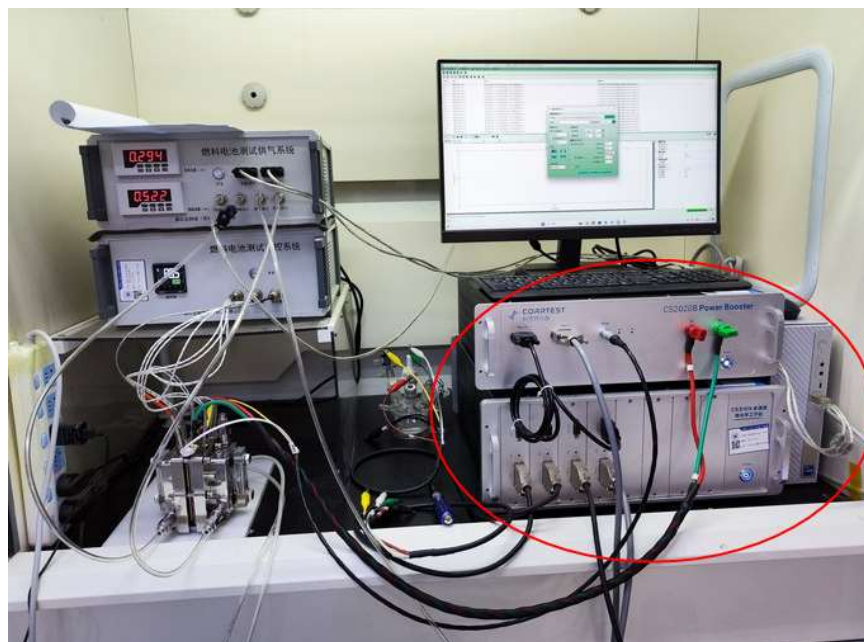
A current booster CS2020B/CS2040B/CS2100B can be connected to single-, bi-, or multi-channel potentiostat to increase the current up to 20A/40A/100A. Please note that one set booster can boost only one channel of bi- / multi-channel potentiostat.

When not connected the booster, the potentiostat can also be used alone. Please be careful when you operate to avoid electricity shock.

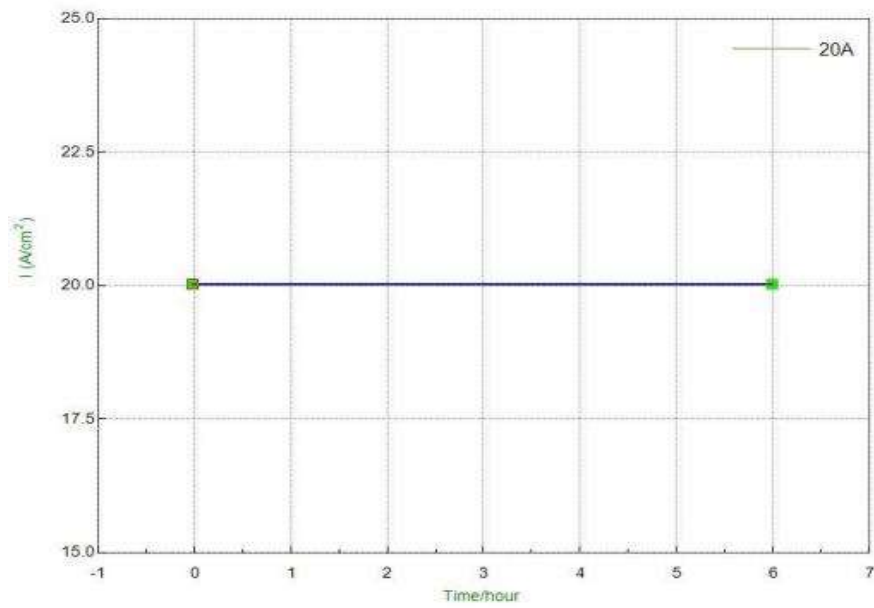




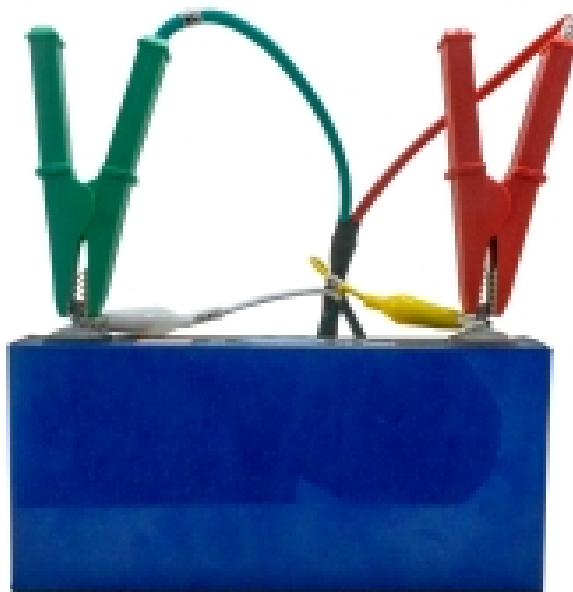
CS2020B/CS2040B/CS2100B current booster +single channel potentiostat (such as CS350M)



CS2020B current booster +multi-channel potentiostat(framed in red)



Curve for galvanostatic experiment- output constant current as high as 20A for CS2020B



Connection of booster with battery core anode and cathode

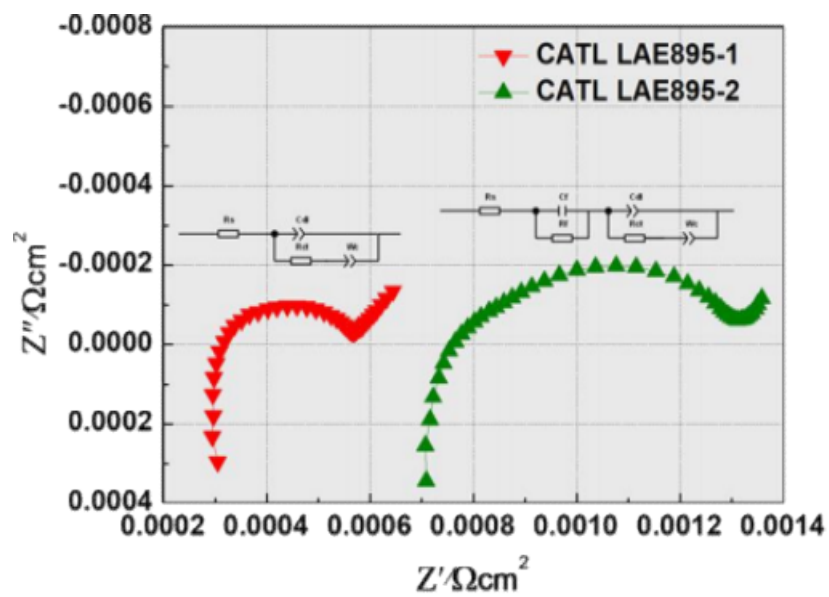
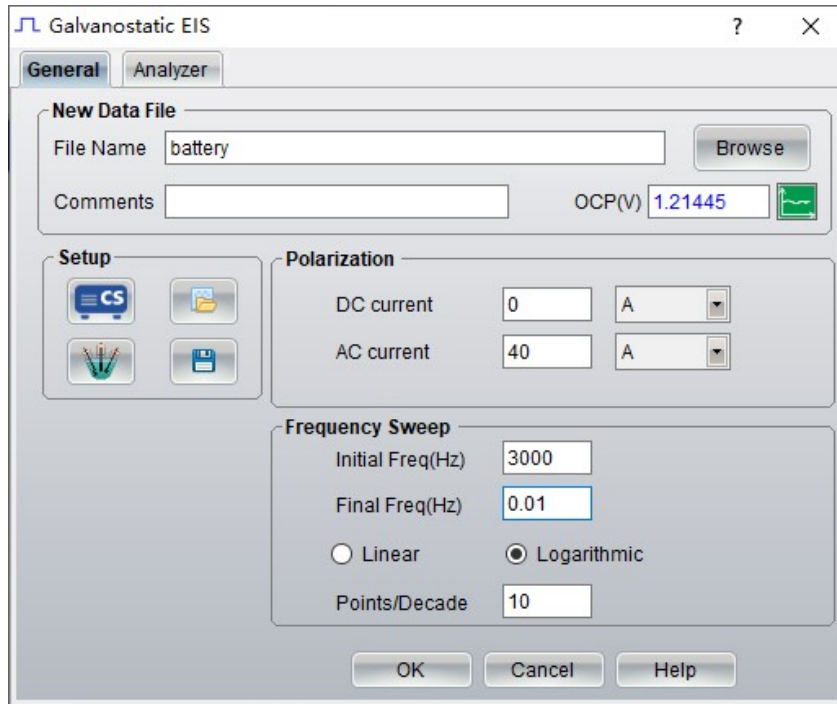


Fig. 3: EIS results of CATL-LAE895 battery core

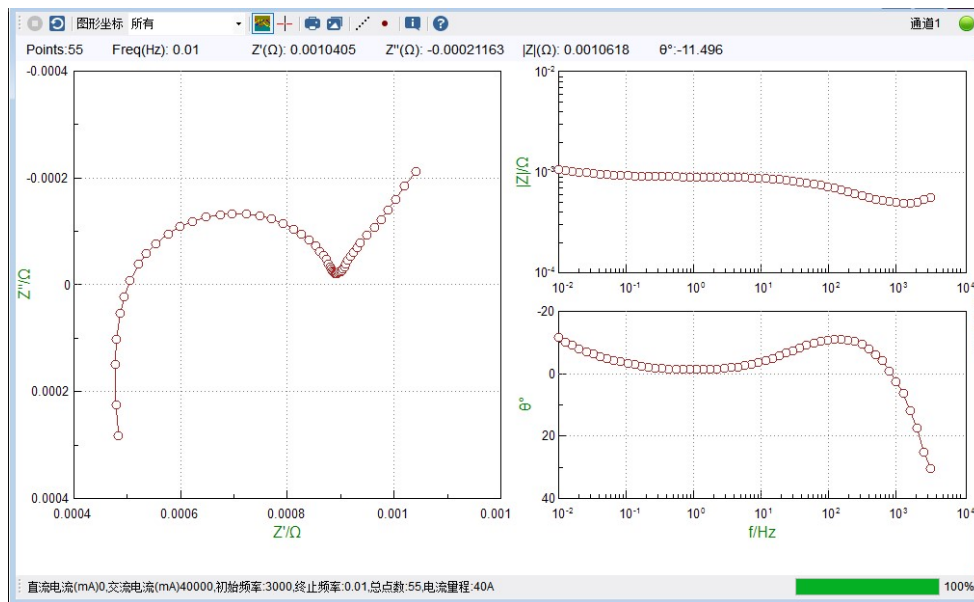
Experiments examples for potentiostat+40A booster

1. EIS Test of large capacity power batteries

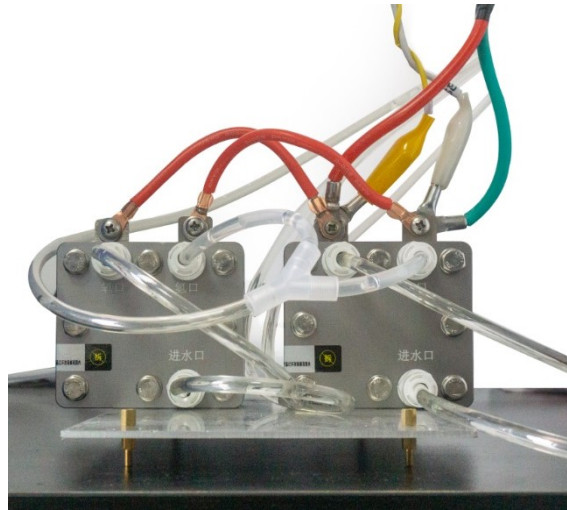
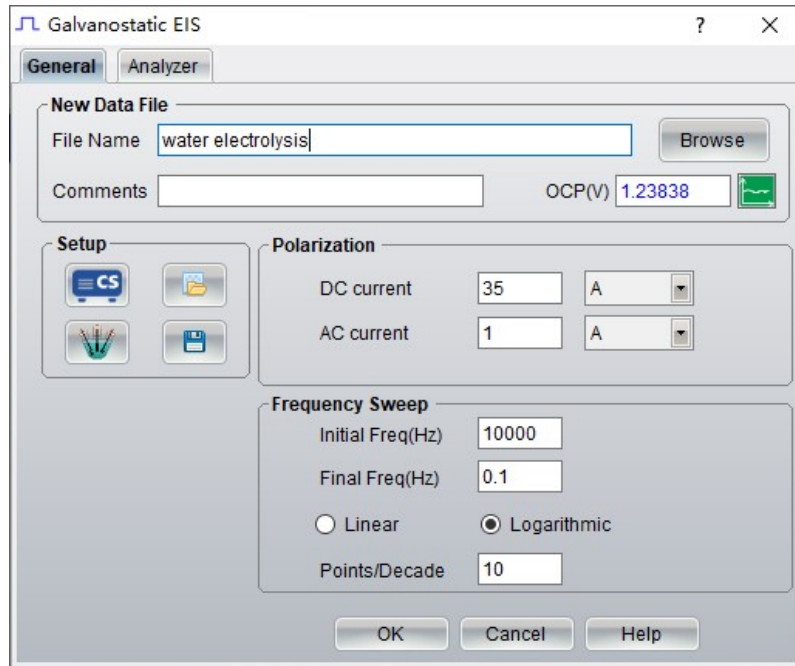




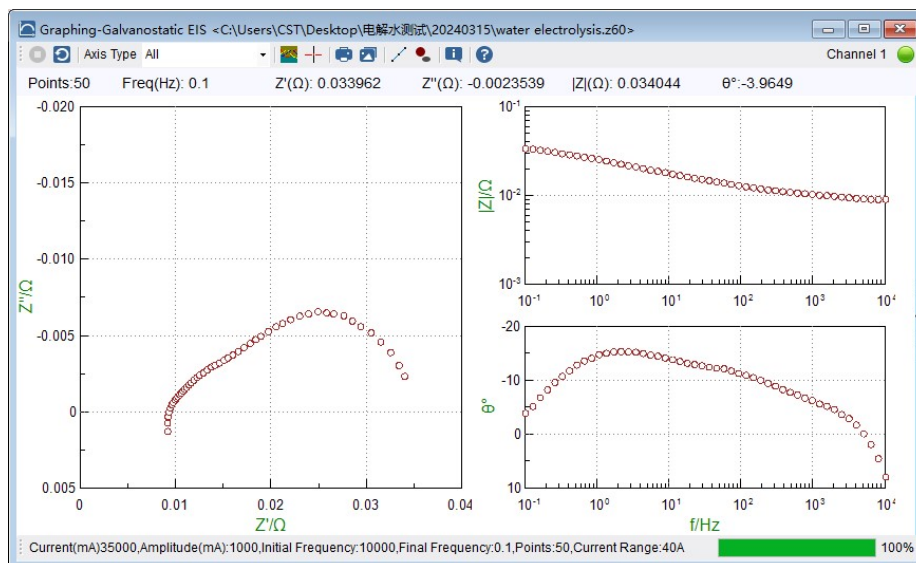
Results



2. PEM water splitting



Results



Key specifications (when combination of CS2020B+potentiostat)

Potential range: $\pm 10\text{V}$ (CS2020B) / $\pm 5\text{V}$ (CS2040B) / $\pm 5\text{V}$ (CS2100B)

Current range: $\pm 20\text{A}$ (CS2020B) / 40A (CS2040B) / 100A (CS2100B)

Current range: 20A/40A/100A fixed range

Compliance voltage: $\pm 13\text{V}$ (when output $\pm 20\text{A}$ limit current, maximum output $\pm 10\text{V}@20\text{A}$)

EIS Frequency range: $\leq 50\text{KHz}$

Communication: RS485

Standard supply for CS2020B/CS2040B/CS2100B booster:

- Current booster instrument*1 set
- Power cable *1 pcs
- DB9 serial port connection cable *2 pcs (1 for replacement in the future)
- DB15 connection cable*2 pcs (1 for replacement)
- Potential sampling cable*2 pcs (1 for replacement)
- Specialized electrode cable (alligator electrode cable*2 and copper terminal electrode cable*2, 1 pcs each for replacement)
- High power dummy cell *1

After-sales Service

1. Warranty period: 3 years. During this period, all service including repair is **TOTALLY FREE**.
2. Provide installation guidance and manual.
3. Lifetime free software upgrading (of the same model) and technical service