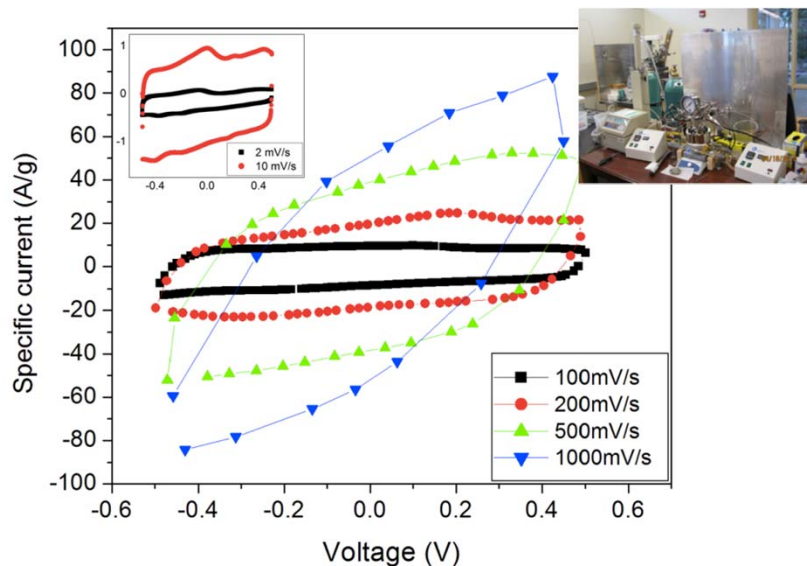


High Efficiency Electrodes For Energy Generation And Storage



Objective:

Explore novel technology to fabricate carbon nanotube metal (or metal oxide) nanostructured electrode that possess ultra-high efficiency and capacity in energy generation and storage.

Approach:

- Control the nanoscale morphology by supercritical fluid deposition
- Improve the stability of the electrode by using corrosion resistant, binder-free supports

Impact:

New nanostructured electrode has significantly improved efficiency and performance in fuel cell and supercapacitors

Developed green techniques for fabricating electrode materials with high efficiency that can be readily integrated into devices.

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Facilities and Infrastructure:

- Supercritical fluid deposition system
- Surface area and pore size analyzers
- Electrochemical measurement stations