Recent Development of Zinc-Polyiodide Redox Flow Battery at PNNL

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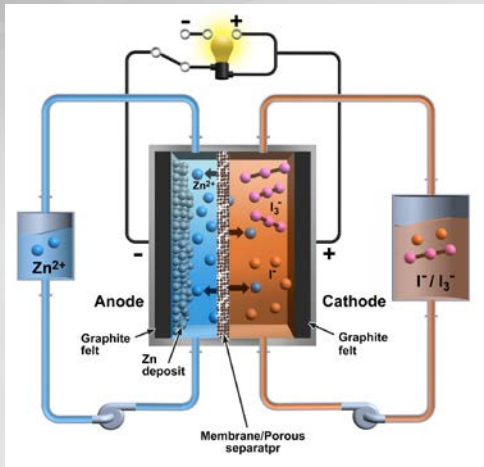
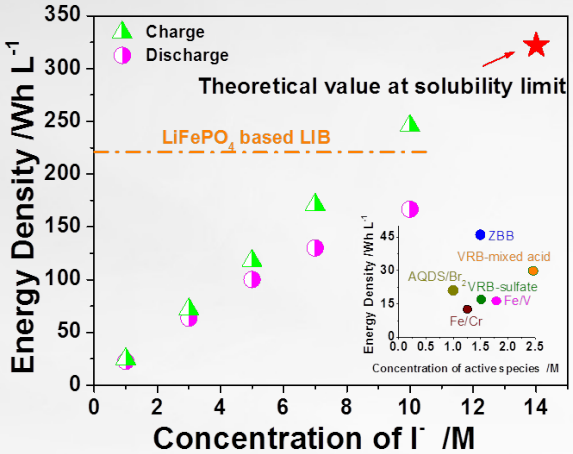




$(+)\ \ I_3^- + 2e^- \leftrightarrow 3I^- \quad (E^o = 0.5360\,V\ vs.SHE)$

$(-)\ \ Zn \leftrightarrow Zn^{2+} + 2e^- \quad (E^o = -0.7626\,V\ vs.SHE)$

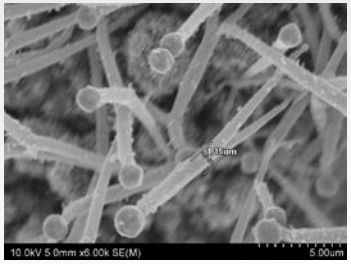
$Overall\text{:}\ I_3^- + Zn \leftrightarrow 3I^- + Zn^{2+} \quad (E^o = 1.2986\,V\,)$

@ 30 mA/cm^2

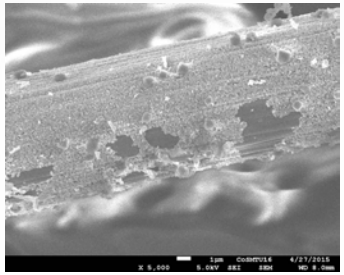
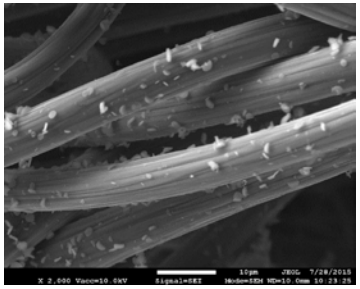
	Pristine	CNTs	CoS	MOF
EE (%)	62.9	68.1	69.0	69.4

At the cathode side

CNTs



CoS



MOF