

High Power Lithium-Ion Batteries

Hybrid EVs are entering the market, and lithium-ion is poised to become the preferred battery technology.

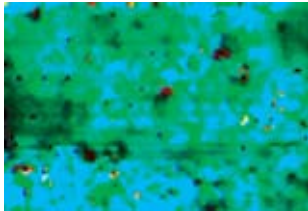
- Higher power & energy, longer life, and similar cost, compared to Ni/MH
- Enables the use of fuel cell vehicles and leads the way to emission-free all-electric vehicles

EETD researchers are addressing key issues to advance lithium-ion technology.

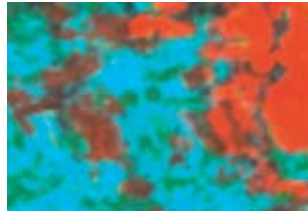
Color-coded images reveal how electrode surface chemistry changes during battery tests

- Loss of conductive carbon contributes to unwanted battery power loss

Fresh cathode



Failed cathode



- ◆ $\text{LiNi}_{0.8}\text{Co}_{0.15}\text{Al}_{0.05}\text{O}_2$
- ◆ graphite
- ◆ acetylene black

10 μm

Raman microscopic images of electrodes

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