Summary of this week



- This past week, we extended beyond understanding electrochemical cells and focused our attention on learning about lithium-ion cells
 - □ Why would we be interested in them? What are their advantages?
 - ☐ How does operational mechanism differ from standard electrochemical cells?
 - What materials are used for current collectors, electrodes, separator, electrolyte, in different types of Li-ion cells?
 - ☐ Finally, we considered whether the global lithium supply is sufficient to meet possible future demand

Dr. Gregory L. Plett University of Colorado Colorado Springs

Introduction to Battery Management Systems | How Lithium-ion Cells Work 1 of 3

1.2.7: Where from here?

Where from here?



- The focus of this specialization is on BMS algorithms
- So, next week we turn our attention to learning about major BMS functions
 - □ What does a BMS need to do?
 - □ What are design considerations for BMS and battery-pack architecture?
 - □ What are the sensing requirements of a BMS, and how does it meet those requirements?
 - □ How does a BMS safely dis/connect pack from load?
 - □ What does BMS need to know about thermal management?



Dr. Gregory L. Plett University of Colorado Colorado Springs

Introduction to Battery Management Systems | How Lithium-ion Cells Work | 2 of 3

1.2.7: Where from here?

Credits



Credits for photos in this lesson

■ "Now what?" sign on slide 2: By John Eisenschenk, [CC BY 2.0 (https://creativecommons.org/licenses/by/2.0/)], https://www.flickr.com/photos/johne777/11873522964

Article concerning battery-pack life I mention during my narrative on slide 2:

■ https://electrek.co/2016/11/01/tesla-battery-degradation/