Bringing Chemistry to Life
a **podcast** series

Season 5, Episode 8
An expert-guided tour of battery chemistry

Episode Abstract

Strap in for this charged up conversation. Battery chemistry is a topic we've touched on before and is one we've committed to exploring further in this season. This conversation with Dr. Heather Platt, Co-Founder and Chief Battery Scientist at Platt Engineering Solutions, takes us on an expert-guided tour of battery chemistry.

This conversation quickly moves us through battery chemistries like lead/acid and into more modern metal sulfides and mixed metal oxides with reversible chemistry. Our discussion of the pros and cons of various chemistries, including lithiumion, touches on complex considerations including power density, voltage, global material sourcing, safety, and more. Manufacturing methods and the micro and nanostructures of battery materials are also discussed.

If you're excited about the future of the battery field you'll be sure to enjoy Heather's views on up-and-coming battery technologies, including solid state and sodium-ion chemistries.

About Our Guest

Heather Platt, PhD
Co-Founder & Chief Battery Scientist
Platt Engineering Solutions

Heather's Recent Publications:

- Defect detection in solid-state battery electrolytes using lock-in thermal imaging
- Solid electrolyte material synthesis method (Patent)
- Binder and slurry compositions and solid-state batteries made there with (Patent)

Heather's Content Recommendations:

- Voodoo Science, a book by Robert L. Park
- What Happened to Electric Vehicle Sales?, commentary by Patrick Boyle
- Formula E racing series, auto racing that supports sustainable mobility and educates about the benefits of electric vehicles
- Article on Babcock Ranch, a solar powered community in Florida
- Contemplative Outreach, a spiritual network for silent prayer and reflection

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