Thermo Fisher

Bringing Chemistry to Life

a podcast series

Season 5, Episode 1:

Batteries unplugged: past, present, and the electrifying future!



Episode abstract

Electricity undeniably changed the world and enabled countless other technologies. Now, via storage and mobile access to electrical energy, batteries are positioned to further enable us as a species. So, it is the perfect time to get to know battery technology innovator and entrepreneur, Dr. Simon Engelke, Founder and Chair of Battery Associates, as he shares his passion for sustainable battery innovation. Any battery enthusiast will feel recharged by this electrifying conversation about the past, present, and future of battery technology.

As a child, Simon was fascinated with energy sources and storage and recalls playing with the fuel cell toy car from his father. In his teens, he indulged his entrepreneurial spirit by starting his first small venture. Fast forward through his globally sourced academic training, always focused on electrochemistry and battery-related research, to find Simon leading a company at the forefront of the battery community and technology.

In our conversation, Simon touches on battery fundamentals; how they work, how they're produced, the various types, and the work involved in optimizing various components, as well as the geopolitical aspects of batteries. We got this insider to school us on how they've evolved, what's next in battery technology and what's needed from the global community to responsibly realize the potential that battery technology represents.

About our guest

Simon Engelke, PhD

Founder and Chair Battery Associates

Simon's Recent Publications:

- Machine Learning Benchmarks for the Classification of Equivalent Circuit Models from Electrochemical Impedance Spectra
- Solid-State Batteries: Status Quo and the Way Ahead
- Three-dimensional pulsed field gradient NMR measurements of self-diffusion in anisotropic materials for energy storage applications

Simon's Content Recommendations:

- Battery Insiders, a podcast
- <u>BatteryMBA</u>, a leadership training course from Battery Associates
- Volt Rush: The Winners and Losers in the Race to Go Green, book Henry Sanderson
- The Powerhouse: Inside the Invention of a Battery to Save the World, a book by Steve LeVine
- A Life on Our Planet: My Witness Statement and a Vision for the Future, a book by David Attenborough
- Power Play: Tesla, Elon Musk, and the Bet of the Century, a book by Tim Higgins
- The Book of Joy: Lasting Happiness in a Changing World, a book by the 14th Dalai Lama, Desmond Tutu, and Douglas Abrams

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