

Fig. 83.—Wollaston's Battery.

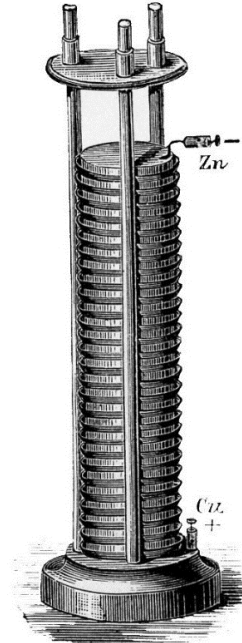


Fig. 81.—Volta's Pile.

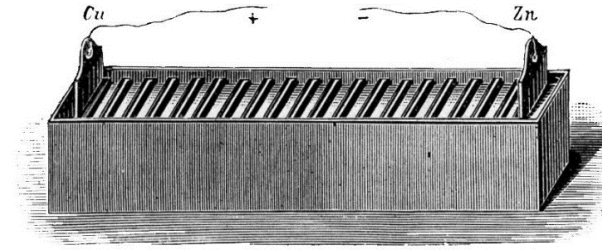


Fig. 82.—Cruikshank's Battery.

# RATEL CONSULTING LLC

STRATEGIES FOR INNOVATION

# ABOUT US

## Our Story & Our Services

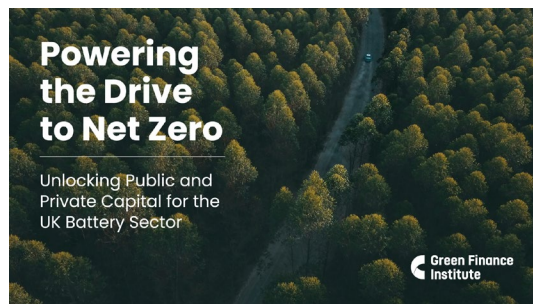
- Founded in 2017
- Located in Kendall Square, Cambridge, MA, USA
- Boutique advisory focused on market intelligence for the energy storage value chain
- Experience in adjacent industries & early-stage technology affords unique insights
- Global network of technical experts in industry & academia, OEM innovation managers, media, & finance professionals
- Serving startups, corporations, and universities as well as government, industry groups, finance, and professional service providers
- Business Case Writing
- Value Proposition Creation
- Techno-Economic Analysis
- Technical Marketing Content
- Competitive Analysis & Product Benchmarking
- Value Chain Analysis
- Policy Analysis
- Funding Support (Dilutive & Non-Dilutive)
- Media Management
- Customer Discovery
- Beachhead Customer Acquisition

# OUR WORK

## Publications & Client Results



**The Battery Report 2022**  
Volta Foundation  
Manufacturing & Policy



**Powering the Drive to Net Zero**  
Green Finance Institute  
Supply Chain



**The Battery Report 2021**  
Volta Foundation  
Policy

## Client Results

- \$60MM+ in Dilutive Funding
- \$10MM+ in Non-Dilutive Funding
- DOE Recycling Prize Win
- National Media Coverage
- Appearances On UBS Equity Call Series
- Publications in Industry Media Outlets
- Customer Acquisitions
- Concept-to-Prototype Project in ~24 Months
- Successful Launch From Stealth
- Key Partnership Agreements

# TEAM



Charlie Parker – Principal Consultant  
University of Florida  
JP Morgan  
Energy Storage Value Chain



Tori Huang – Associate Consultant  
Williams College  
Bain  
Impact Investing



Paul Muser – Associate Consultant  
Brown University  
Brown Technology Consulting Group  
Clean Tech



Eamon O'Malley – Associate Consultant  
Boston College  
BC Center for Corporate Citizenship  
Sustainability

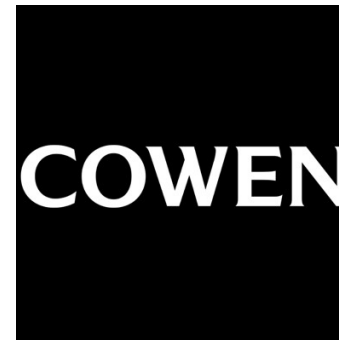
# CLIENTS

Advising Battery Technology & Clean Tech Clients Across The Value Chain

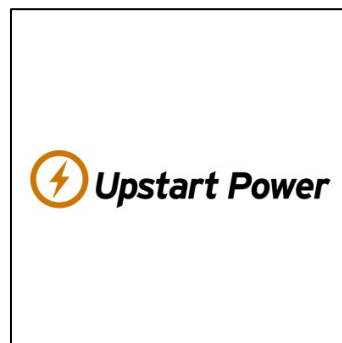
## Energy Storage



## Professional Services



## Clean Tech



## Non-Profit



# UPSTREAM CLIENTS

Commercializing Next-Generation Upstream Technologies



Stratus Materials – CAM



E-NexT - AAM



HiT Nano – CAM Manufacturing



# STRATUS MATERIALS

## Low-Cost, High-Performance CAM | NMC Performance at LFP Prices

- Carnegie Mellon spinout founded by Dr. Jay Whitacre and backed by Breakthrough Energy Ventures
- Cobalt-free, manganese rich
- Emerged from stealth February 2023
- Selecting limited number of pilot partners

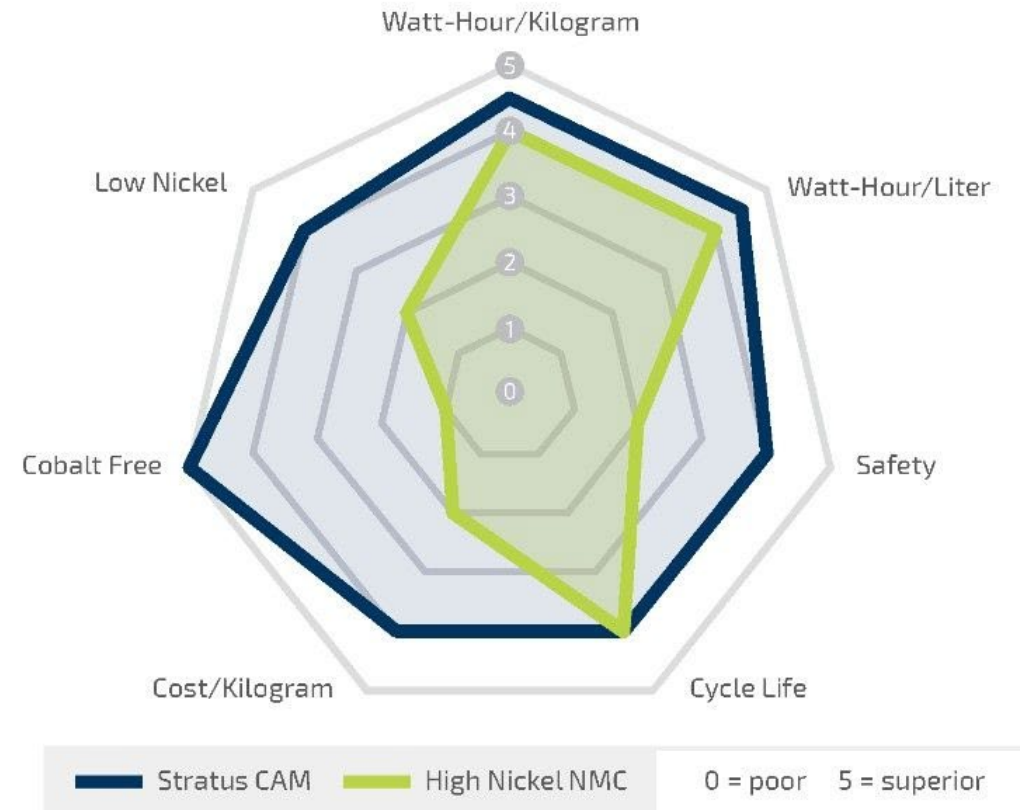
Stratus Cathode Active Materials are designed to be superior to industry-standard NMC offerings on virtually every dimension.

Specific examples:

- Specific Capacity :  
> 225 mAh/g
- Specific Energy :  
> 800 Wh/kg
- Thermal decomposition temperature (@ full SoC) :  
> 250°C

In Electric Vehicle Passenger Car Application

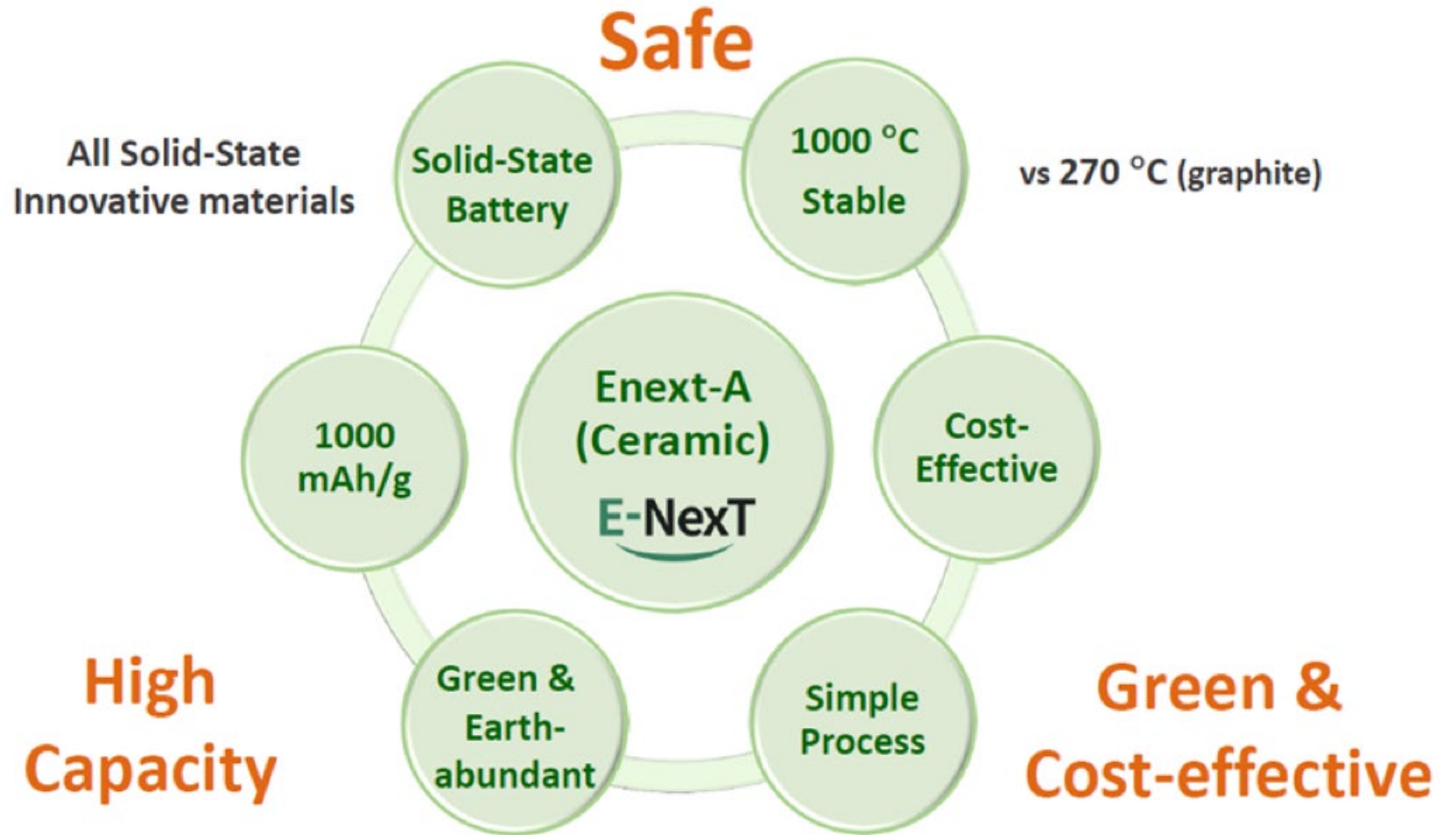
### Attributes vs. Available Cathodes



# E-NEXT

Next-Generation Anode Materials | Safe, High-Performance, Cost-Effective, Earth Abundant

- Founded by Professor Tri-Rung Yew
- Founded in 2019 and based in Taiwan, will be operating in the US beginning in 2023.
- Brick-type ceramic
- High-capacity at high C-rate, suitable for EV, ESS, UPS, etc.
- Selecting a limited number of pilot partners

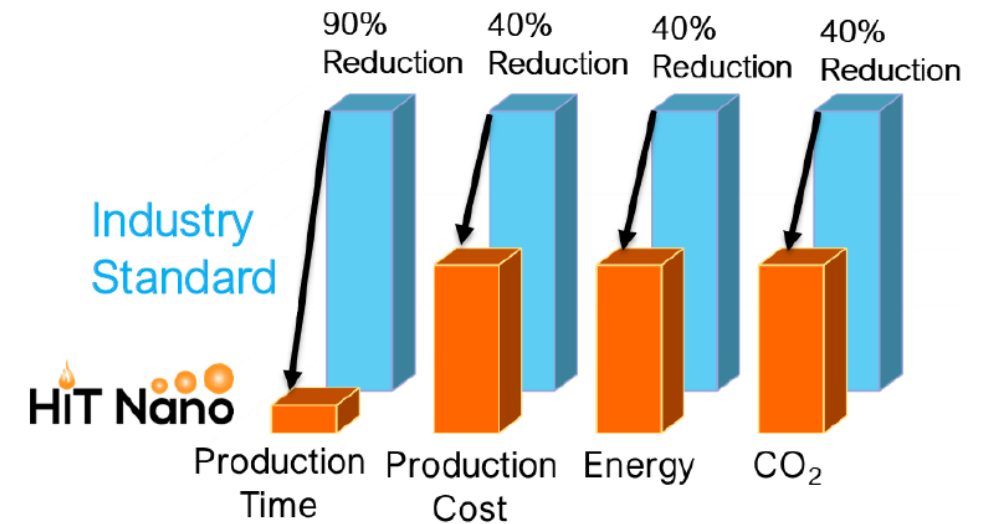
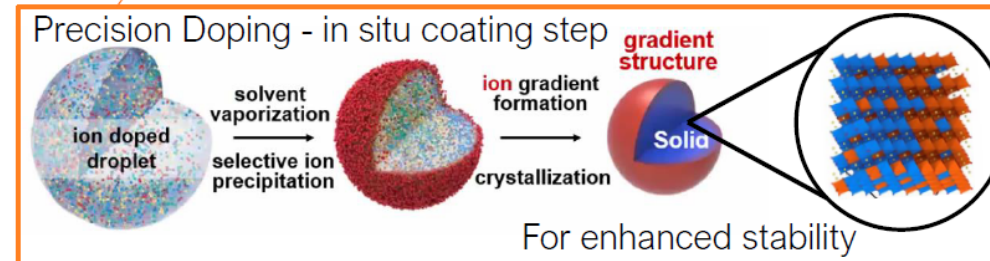
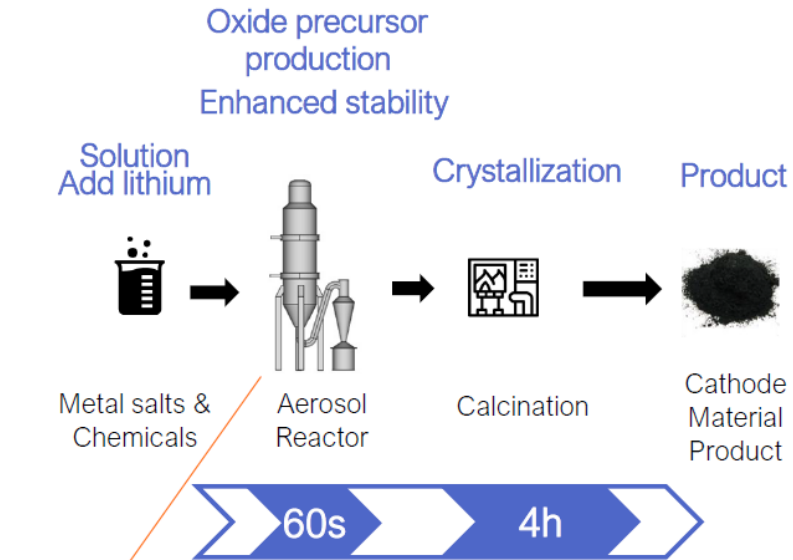




# HIT NANO

## Sustainable, Low-cost Cathode Manufacturing With Material Performance Enhancements

- Princeton spinout founded in 2018
- Reduces manufacturing and environmental footprints
- Currently raising Series A
- Selecting a limited number of pilot partners



# CONTACT INFORMATION

Thank You For Your Time, Feel Free To Connect

- Email:  
[solutions@ratelconsulting.com](mailto:solutions@ratelconsulting.com)
- Book An Appointment:  
<https://calendly.com/charlie-ratel/general-meeting?month=2023-02>
- View Our Work:  
<https://www.ratelconsulting.com/our-work.html>
- Connect On LinkedIn:  
<https://www.linkedin.com/in/charlieparker-ratel-consulting/>
- Follow Us On LinkedIn:  
<https://www.linkedin.com/company/ratel-consulting-llc/>
- Call Us: +1-781-856-4981



Ratel Consulting



Stratus Materials



E-NexT



HiT-Nano