

# Soteria Battery Innovation Group

Dirk Van Hyning, CCO
Dirk.VanHyning@SoteriaBIG.com





## To eliminate fires in all lithium batteries, forever.



#### The Soteria Value Proposition:

Safer, Cheaper, Lighter and Industry Supported

Two licensable technologies

- Eliminate root causes of thermal runaway
  - Functioning cells after nail penetration

- 20% reduction in weight
  - Remove cost and weight of protective materials & systems

- Soteria **global consortium has 54 members**
- Open innovation model with FRAND licensing
  - Consortium enables broad technology development and robust supply chain

Reduce metal use by 90%

**Drop-in replacements** 

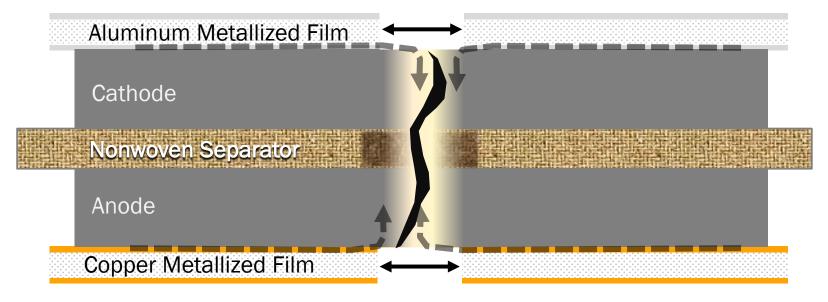
Estimated **30% reduction in material costs** for separator and current collector



#### The Soteria Technologies

Mechanism of Eliminating Thermal Runaway

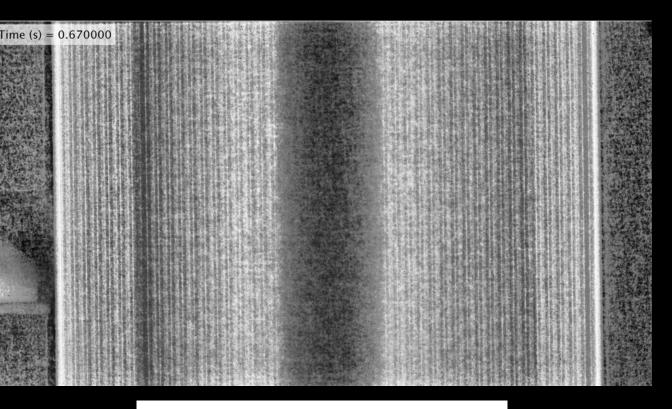
Dreamweaver Separator will char but not retreat from a short.

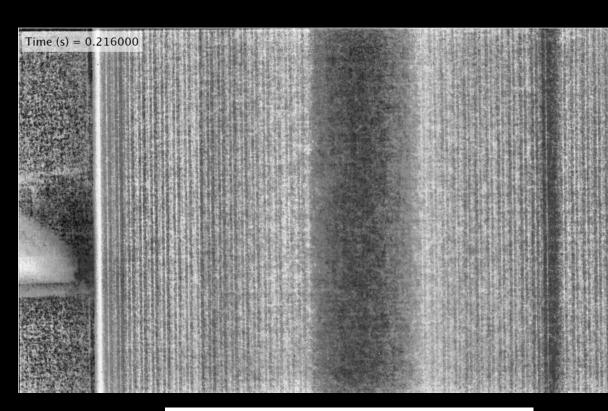


Soteria current collectors oxidize and retreat from short, acting as an internal fuse.



### Do polymer collectors help protect against mechanically-induced thermal runaway?





2.1 Ah Cell – 100 % SOC (4.2 V) Standard materials Without ISC device

2.1 Ah Cell – 100 % SOC (4.2 V)
Al coated polymer current collector
Without ISC device

Watch Video: <a href="https://youtu.be/LhlaHTKlgqc">https://youtu.be/LhlaHTKlgqc</a>

Watch Video: <a href="https://youtu.be/ulAPoho44tM">https://youtu.be/ulAPoho44tM</a>



#### The Soteria Consortium Model:

Bringing Expertise Throughout the Supply Chain















#### Soteria BIG: What we are doing now?

#### **CONSORTIUM GOALS**

- License technology
- Aggressive safety standards
- Associate brand with safety

#### 2020-21 Commercialization

- Scale materials, cells, packs for
- E-bikes, scooters, fork trucks, power tools, industrial electronics







#### Thank you!

Contact

Brian Morin, President Elliot Reiff, CFO

brian.morin@soteriabig.com elliot.reiff@soteriabig.com

(864) 908-4763 (949) 230-2398

18-B Brozzini Ct., Greenville, SC 29615

THIS PRESENTATION (INCLUDING THE FORECAST EXPECTED RETURN) HAS BEEN PREPARED SOLELY FOR INFORMATIONAL PURPOSES AND IS NOT AN OFFER TO BUY OR SELL OR A SOLICITATION OF AN OFFER TO BUY OR SELL ANY SECURITY. IT SUMMARIZES CERTAIN PROPOSED TERMS RELATED TO THE OFFERING BY SOTERIA BATTERY INNOVATION GROUP. SUCH A SOLICITATION MAY ONLY BE MADE THROUGH FORMAL OFFERING DOCUMENTATION INCLUDING A DISCUSSION OF ALL RELEVANT RISK FACTORS. THIS PRESENTATION IS FOR DISCUSSION PURPOSES ONLY.