

INVEST IN INFINICELL

**Build safer, faster-charging
rechargeable batteries with a new
chemistry that goes beyond lithium**

Chandler, AZ [in](#)

Highlights

- 1 Developing a safer, faster-charging battery chemistry for EVs and energy grid storages
- 2 Battery chemistry is non-flammable and resource-abundant

- 3 PhD battery scientist with 14 yrs experience leading EV battery R&D
- 4 Built functional battery prototypes showing reversible behavior
- 5 Early tests show high cycle stability under elevated temp/rate
- 6 Applied twice to YC; aiming for Fall 2025 batch
- 7 Raising \$1M to build lab and engineer pouch cell samples
- 8 Designed for next-gen EV safety and global regulations

Featured Investor



Kyle Von Johnson in
Syndicate Lead

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Invested
\$15,000

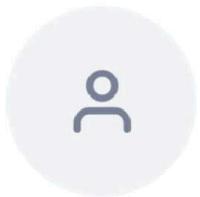


Partner at CHDB Law in Tempe Arizona, civil litigator, and looking to disrupt industry standards.

“As a corporate attorney handling complex litigation, I’ve seen firsthand what pitfalls can topple companies, even those built on solid technological foundations. I’m excited about InfiniCell because I’ve seen Tofazzel’s work product and his dedication to making this technology the new normal for electric vehicles. I’ve known Tofazzel for roughly half a decade while he was researching and testing batteries for Nikola Corporation. Batteries are what he does and has only ever done with his materials science PhD. He knows batteries, period. For too long has unsafe lithium been the standard for electric vehicles. InfiniCell is unique in that Tofazzel

has engineered an early prototype battery, not from lithium or hydrogen, but from aluminum. InfiniCell's battery is not hindered from years of negative propaganda like hydrogen or bad publicity for exploding like lithium. Aluminum is safe, abundant, and widely accepted in society. Add cultural acceptance of aluminum with InfiniCell's ability to outperform lithium and you get the makings of an industry disruptor. I'm excited to be a part of this investment team and to help bring this opportunity to those who are ready to shake up an industry as large as EV batteries.”

Our Founder



Tofazzel Hossain Founder and Lead Scientist

PhD in Materials Science. 14+ years in energy materials R&D, including at Nikola Motors. Inventor on a patent-pending battery safety AI model. Built early non-lithium cell prototype with high-rate cycling. 2x YC applicant

A Safer, Faster-Charging Battery —Built Beyond Lithium

Lithium Had Its Moment. The Next Battery Gold Rush Has Begun.

Every decade, a technology shift mints the next generation of billion-dollar companies. This time, it's aluminum-ion — safer, faster-charging, and ready to disrupt a \$400B+ market. InfiniCell is ahead of the curve, with breakthrough chemistry that charges in minutes, can't catch fire, and scales without supply chain choke points. Regulations are tightening, lithium's limits are showing, and we believe the shift is inevitable. We believe the question isn't if the world will

switch — it's who will lead it. Invest now, before the world catches on.

InfiniCell is raising \$1M in our pre-seed round to seize that lead — and this is your chance to get in early.

Introduction

We're building rechargeable batteries that are faster, safer, and more affordable—with a new non-lithium chemistry designed for the future of energy.

Lithium-ion has dominated for decades, but its weaknesses are now impossible to ignore: fire risk, limited supply, rising costs, and strict safety regulations in key global markets.

That's where InfiniCell comes in.

We're pioneering a new battery system that goes beyond lithium—leveraging abundant, low-cost materials to achieve non-flammable performance, ultra-fast charging, and impressive thermal stability. Early prototypes built in a garage lab have demonstrated reversible cycling and high-rate capability even without ideal conditions.

Our vision is bold: to deliver the next generation of battery technology that meets—and exceeds—tomorrow's safety and performance standards, especially in EVs and grid storage.

I'm Tofazzel Hossain, PhD in Materials Science with 14+ years of experience in battery technology, including at Nikola Motors. I've built batteries in the lab and modeled them at the vehicle level. I'm also the inventor of a patent-pending AI model for thermal runaway prediction—safety is deeply personal to this mission.

With \$1M in funding, we plan to build a dry lab, validate our chemistry under controlled conditions, and develop our first engineering-grade pouch cells. Our journey is just beginning, but our science is real—and we're ready to scale.

Let's make batteries safer, faster, and future-proof.

Join us.



the **PROBLEM**

Lithium-ion batteries are hitting a wall.

- 🔥 Fire risk from thermal runaway events is growing
- ⚠️ Complex chemistries rely on critical minerals like lithium, cobalt, and nickel
- 💲 Prices are rising, and supply chains are increasingly fragile
- ⚠️ EV safety standards are tightening worldwide (China now requires 2-hour thermal containment)

Why InfiniCell? Why Now?

🚗 EV adoption is accelerating – but lithium-ion is struggling to meet new global safety standards. China's recent mandate for 2-hour post-thermal containment is just the beginning.

🔥 Battery fires are on the rise, creating public concern and undermining trust in electric mobility. Consumers, fleets, and grid operators are demanding safer alternatives.

🌐 Lithium and cobalt supply chains are strained, with rising costs, environmental tolls, and geopolitical bottlenecks. The world needs a chemistry that's abundant, stable, and local.

⌚ InfiniCell is engineered for this moment. We're developing safer, fast-charging batteries using a novel non-

lithium chemistry – one that inherently resists thermal runaway, charges in minutes, and scales with global demand.

💡 Backed by a founder with a PhD in Materials Science, a decade of battery experience, and a pending patent for battery failure prediction – InfiniCell isn't starting from scratch. We've already demonstrated early working prototypes and strong capacity retention at high C-rates.

🚀 With funding, we're ready to scale. We plan to build a dry lab, engineer our first pouch cells, and prepare for pilot partnerships.

the **SOLUTION**

AN INHERENTLY SAFER BATTERY CHEMISTRY

- Abundant Materials
- High Temp & High C Rate Resistant
- Faster Charging (5-8 min)
- Non-Flammable

The Future Needs a New Chemistry

Lithium can't meet the safety, speed, and scalability demands of tomorrow's world. At InfiniCell, we've gone back to the periodic table to design something fundamentally better—a battery system built from abundant materials, engineered

for thermal safety, and capable of charging in minutes.

InfiniCell's Solution



Aluminum-Ion Battery

⚡ Performance Highlights

99.5% Capacity Retention over 20 Cycles

Our early prototype retained ~99.5% capacity even under extreme conditions: 50C rate at 40°C – far harsher than typical consumer battery tests.

Fast-Charging Potential (5–8 Minutes)

Our chemistry enables rapid energy transfer without thermal runaway, opening the door to ultra-fast charging without the need of complex cooling.

🔥 Non-Flammable by Design

Unlike traditional batteries that depend on volatile electrolytes, our materials are inherently non-flammable, making them a natural fit for future EV and aerospace safety standards.

🌐 Abundant, Sustainable Materials

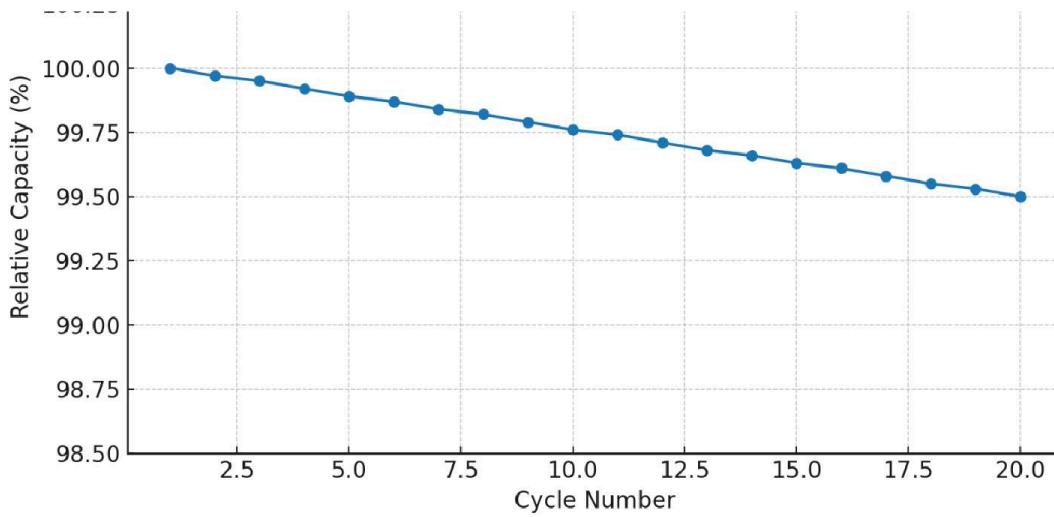
No reliance on rare or geopolitically risky metals. We're designing for global scale from day one.

📊 How We Compare

Feature	InfiniCell Prototype (Al-ion)	Traditional Batteries (Li-ion)
Capacity Retention (20 cycles)	~99.5% @ 50C, 40°C	~95–97% under same stress [1]
Fast Charging	5–8 minutes (target)	30–90 minutes with risk of overheating [2]
High Temperature Performance	Stable at 40–80°C	Accelerated aging above 40°C [3]
Safety	Non-flammable chemistry	Fire/explosion risk due to organic solvents [4]
Material Availability	Earth-abundant elements (aluminum)	Lithium, cobalt, nickel supply constraints [5]

Early Prototype: 20 Cycles at High C-Rate, 40°C
>99.5% Capacity Retention





💡 What Makes Us Different

- This is **not** another lithium startup
- This is **not** a minor cathode tweak
- This is a reimaged battery architecture – built for a world that demands safer, faster, cheaper, and cleaner energy storage.

The regulations are coming (like China's new 2-hour containment rule). The EV and energy storage industries are searching for alternatives. InfiniCell is built for that future.

📚 References

1. Based on peer-reviewed Li-ion degradation studies under high C-rate and temp.
2. DOE/EERE vehicle battery benchmarks.
3. Journal of Power Sources, 2018 – thermal degradation of Li-ion above 40°C.

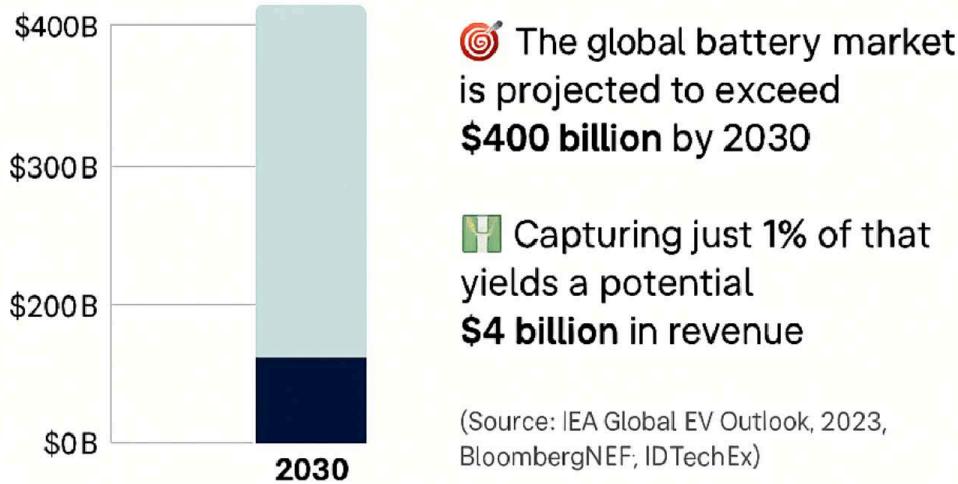
4. INTEL and UL fire safety reports.

5. U.S. Geological Survey & IEA critical materials risk analysis.

Market Opportunity

-  The global battery market is projected to exceed \$400 billion by 2030
-  Capturing just 1% of that yields a potential \$4 billion in revenue
- (Source: [IEA Global EV Outlook 2023](#), BloombergNEF, IDTechEx)

Market Opportunity



Future projections are not guaranteed.

Analysts agree: aluminum-ion batteries are emerging as a major force in next-generation energy storage.

◆ **Yahoo Finance** (Mar 2025) reports the aluminum battery market is projected to grow from \$5.6B in 2025 to \$9.5B by 2035, driven by cost, safety, and sustainability.

▀ “*Aluminum is far more abundant than lithium, geopolitically diverse, and cheaper to process.*”

(Source: [Yahoo Finance / GlobeNewswire](#))

◆ **Future Market Insights** projects that the global aluminum-ion battery market will grow at a CAGR of 10.2% from 2023 to 2033, fueled by demand for fast-charging and safer batteries in EVs, grid storage, and aerospace.

∅ *Read the full report: [Future Market Insights – Aluminum-Ion Battery Market](#)*

yahoo finance

ALUMINUM BATTERY MARKET TO REACH USD 9.5 BILLION BY 2035

DRIVEN BY COST-EFFECTIVENESS AND SUSTAINABILITY

NEWARK, Del., March 13, 2025 (GLOBE NEWSWIRE). According to market research, the aluminum battery market is expected to grow from USD 5.6 billion in

Market is expected to grow from USD 5.0 billion in 2025 to USD 9.5 billion by 2035, registering a CAGR of 5.5%. The global aluminum battery market is gaining significant traction, driven by advancements in battery technology, increasing renewable power adoption, and the need for cost-effective energy storage solutions. Aluminum is far more abundant than lithium, geopolitically diverse, and much cheaper to extract and process. These advantages make aluminum batteries particularly suitable for large-scale energy storage applications, including grid storage and electric vehicles (EVs). With the rising demand for safer and sustainable battery



Market Strategy

1. Initial Target Markets

- ⚡ **Electric Vehicles:** Partner with niche or second-tier OEMs who seek safer, faster-charging alternatives to lithium
- ☀️ **Stationary Energy Storage:** Supply grid-scale storage solutions where thermal safety and lifespan matter most
- ✈️ **Aerospace & Defense:** Lightweight, non-flammable battery chemistry unlocks premium markets with urgent needs

2. Business Model

- 📄 **License core chemistry + manufacturing IP to cell producers**

-  Build & deliver engineering samples (Sample A/B/C) to OEMs by phase
-  Long-term: Joint ventures or cell production partnerships

3. Go-to-Market Plan

- Year 1: Build lab, finalize pouch prototype
- Year 2: Pilot trials with partners, collect performance validation
- Year 3+: Partner with a tier 2 OEM or storage firm for scaling path

Want to Learn More?

If you're an investor or technical reviewer and want to better understand the chemistry or prototype results, I'm happy to set up a video call to walk you through what we've built and why this matters. Email us at tofa.hossain@infinicellenergy.com



Join Us Early

We're still in stealth — but this raise is your opportunity to be part of the next big leap in battery technology.

If you believe the future can't run on lithium forever — join us.