

Changing the way we power our lives.

Introducing SiFAB™, a powerful breakthrough in silicon anode technology.

SiFAB enables higher energy density through a nanoporous fiber structure that accommodates Si swelling in lithium-ion batteries. Its groundbreaking silicon fiber anode material can be mixed into anode slurry with existing battery manufacturing processes. With proven industrial-scale processes that eliminate supply chain concerns over mass adoption, SiFAB is a great leap forward for battery technology.

+ Superior silicon.

SiFAB's game-changing technology is poised to transform the battery industry. Its unique structure and capability to scale provide the versatility to span usage across many industries and applications throughout the lithium-ion battery ecosystem.

High capacity coupled with high-rate and high-temperature performance.

SiFAB offers high reversible capacity greater than 2,000 mAh/g, enabling gravimetric energy density improvement over graphite up to 20%. Proven high-rate and high-temperature performance up to 4C and 45°C makes SiFAB a great fit for fast-charging and high-power applications.

Drop-in ready paired with design flexibility.

SiFAB offers a true drop-in solution, as the unique technology features micron-sized silicon fiber with a built-in nanoporous structure that works well with your existing mixing equipment. Meanwhile, it has demonstrated robust performance in various electrode formulations, allowing design optimization for a given application.

Established manufacturing.

Processed for industrial-scale manufacturing, SiFAB is currently producing samples for customer evaluation, with commercial production capability expected to be available in mid-2022.



More power



Lighter weight



Increased range



Space saving



Faster charge

+ Adaptable power for broad applications.

SiFAB's exclusive nanoporous silicon fiber anode technology enables significantly higher energy density than graphite and faster charging for a range of applications.



Electric vehicles



Consumer electronics



Power tools



Grid storage



Aerospace

+ A formidable manufacturing track record.

SiFAB is developed by Alkegen, a world leader in manufacturing high-performance specialty materials. Alkegen is no stranger to the battery world and has an impressive history of developing new technologies at a large scale for more than 75 years. Today, we work across multiple industries – including electric vehicles, batteries and energy storage, automotive and aerospace, industrial insulation, filtration, and fire protection – that require rigorous quality standards, certifications, and compliance to global health, safety, and environmental regulations.

Engineering smarter.

Alkegen is dedicated to creating products that are designed with the ultimate goal of improving human health and sustainability. Our products save energy, reduce pollution, and improve safety for our customers.



See how SiFAB is changing the way we power our lives and request samples at [sifab.com](https://www.sifab.com).



9,000+ employees worldwide



75+ years of experience



60+ manufacturing facilities in 12 countries



ISO 9001/IATF 16949 accredited