



## Our Team



Prof. Dr. Jennifer Rupp  
Co-Founder & CSO

- Prof. of Chemistry at TU Munich & long-term guest professor at MIT
- One of the top experts for solid state ceramics and batteries in the world

Current & past affiliations



Lisa Liu  
Co-Founder & CEO

- Business professional with a background in startups and venture capital
- Specialized in B2B and deep tech startups

Current & past affiliations



Dr. Andreas Weis  
Co-Founder & CTO

- Accredited researcher and tech leader
- Specialized in the synthesis and characterization of materials for renewable energy applications

Current & past affiliations



We are a Munich-based startup developing solid-state electrolytes for the next generation of green, safe and high-performance batteries.

## The Hybrid and Solid-State Battery Opportunity

### Advantages over state of the art lithium-ion batteries

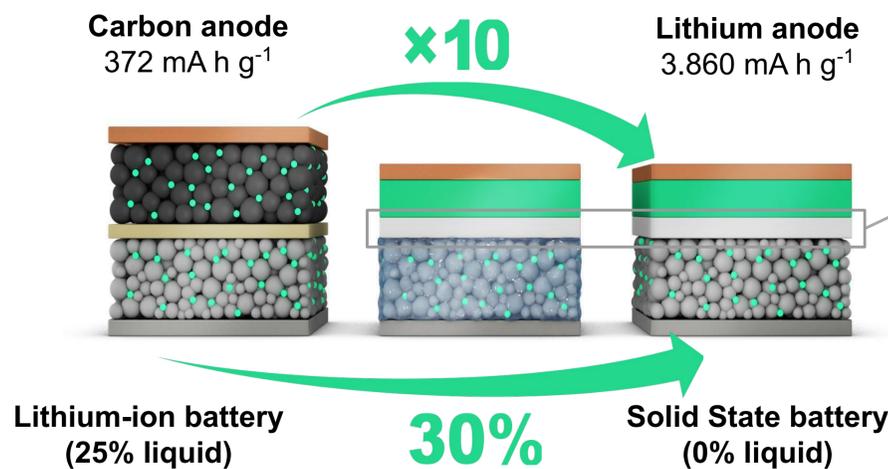
- Improved energy density
- Faster charging and life cycle
- Safety: Increased stability and decreased flammability

### Technical challenges in reaching industrial-scale

- Expensive fabrication costs due to high processing temperatures
- Compatibility with common cathodes difficult
- Challenging thickness control
- Hard to scale up for large coating areas

The solid-state electrolyte enables:

10× more capacity in anode which translates into about 30% energy density increase



### Qkera technology

- Low-cost synthesis of solid-state electrolytes
- Components for various high-performance battery designs and chemistries
- No high temperature sintering required
- Scalable deposition techniques

Pfenninger, Reto, et al. "A low ride on processing temperature for fast lithium conduction in garnet solid-state battery films." *Nature Energy* 4.6 (2019): 475-483.  
Kim, Kun Joong, et al. "Solid-state Li-metal batteries: challenges and horizons of oxide and sulfide solid electrolytes and their interfaces." *Advanced Energy Materials* 11.1 (2021): 2002689.  
Balaish, Moran, et al. "Processing thin but robust electrolytes for solid-state batteries." *Nature Energy* 6.3 (2021): 227-239.

## Advantages of Qkera's Solid-State Electrolytes

■ Today's Li-ceramic products

■ Qkera products

### Low processing temperatures



Cost and CO<sub>2</sub> footprint reduction

### Compatibility



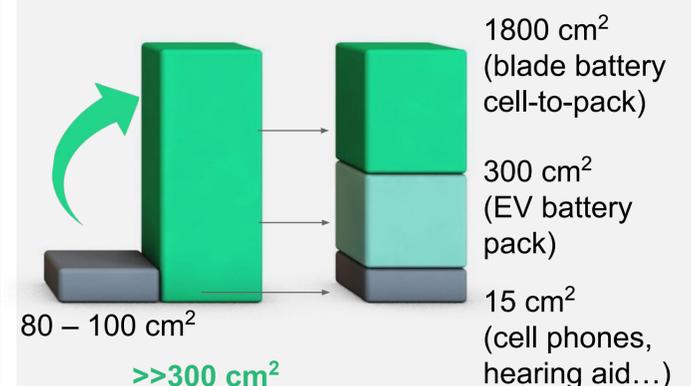
Avoid socio-economic resource conflicts

### Thickness reduction



Gain volume for more active material

### Large coating areas



Enable large cell packs, access additional markets (e.g. EVs)

