

PROCESSING MATERIALS WITH STAR BURST™

Application examples: micronization of materials for Batteries.

Explore the use of Star Burst for batteries and battery-related materials.

- ☒ Oxide solid electrolyte
- ☒ Sulfide solid electrolyte

Please note: The magnifications of microscope images before and after processing are not always the same.

Oxide Solid Electrolyte

Raw material: LLZ-AL
(Li_{6.25}La₃Zr₂Al_{0.25}O₁₂)
without dispersant

Pressure: 200MPa

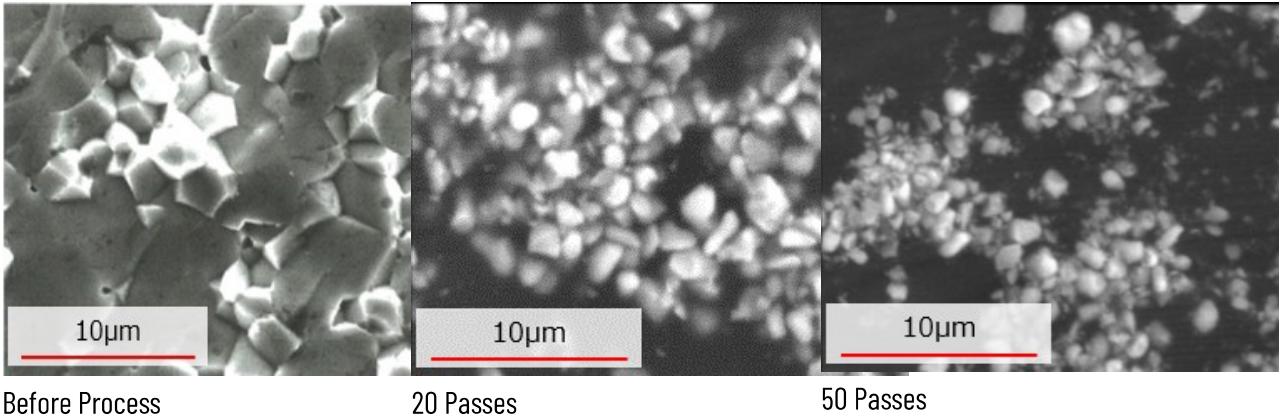
Number of Passes	Before Processing	1	10	20	30	40	50
Particle size distribution measurement results:Major diameter: D50 [μm]	7.06	2.32	1.04	0.89	0.81	0.75	0.67

Showing 1 to 1 of 1 entry

SEM Image

Untreated median diameter:

7.06μm 20pass • median diameter: 0.89μm 50pass • median diameter: 0.67μm



Sulfide Solid Electrolyte

Raw materials: LSPS (Li10SnP2S12) dispersant

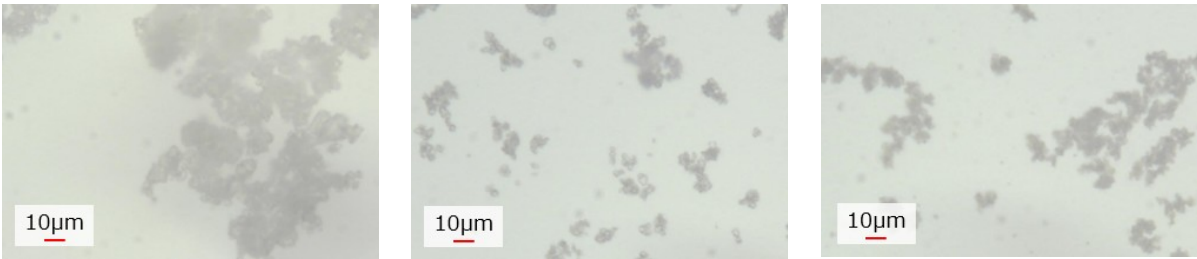
Pressure: 200MPa

Number of Passes	Before Processing	1	10	20	30	40	50
Particle size distribution measurement results:Major diameter: D50 [µm]	12.77	6.74	4.37	4.09	3.25	2.47	1.51

Microscope Image

Untreated Median diameter:12.77µm 20pass • Median diameter: 4.09µm 50pass • Median diameter: 1.51µm

* Partial reaggregation



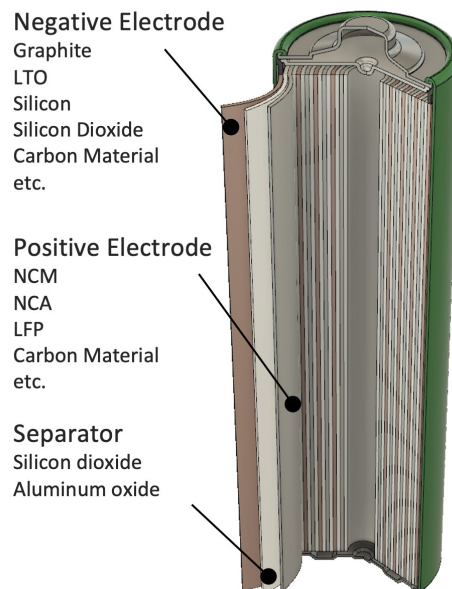
SAMPLE TESTING AVAILABLE IN OUR CHICAGO
LOCATION

Start processing raw materials without the typical challenges.

Get Started

Star Burst can be used for:

- ✓ Active Materials Dispersion
- ✓ Silicon Dispersion
- ✓ Carbon/Binder Homogenization
- ✓ Carbon Materials Exfoliation
- ✓ Good Stability of Dispersion

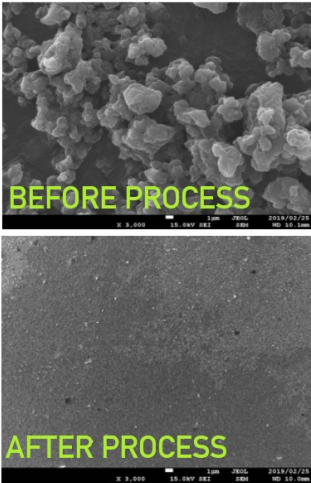


Application Examples

BATTERY APPLICATION EXAMPLE

⇒ Disperse electrode material slurry, such as:
Silicon, Silicon Dioxide, Graphite, Carbon Black and more

Carbon Black
SEM Image

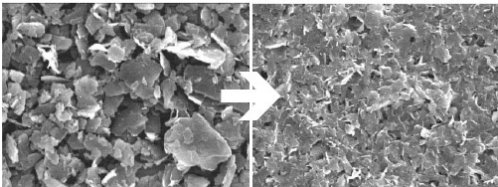


⇒

BATTERY APPLICATION EXAMPLE

⇐ Processing Advanced Material
e.g.: Graphene, Carbon Nanotube

Delaminate Graphite
SEM Image



⇒

Delaminating Graphite

Before : After

