

Solid state sulfide Based LI-Metal batteries for EV applications

Deliverable 3.2 Report on delivery of 1 kg batches for WP4 & WP5

Marc-David Braida
SOLVAY



Publishable summary

In the frame of the WP3 for materials optimisation and scaling up, batches representative of the kg scale of sulphide solid electrolyte have been synthesized on a large laboratory-scale equipment developed and installed Solvay.

Based on GEN-I and GEN-II materials developed by CEA and that exhibit limited conductivity features, choice was done to orient GEN-III toward sulphides with conductivity above 1mS/cm. These compounds were first synthesized at 10g and 100g scale before up scaling with same quality at 1kg scale. This upscale was done after definition of the relevant tools and working conditions to operate in full safety mode.

A 570 grams batch with conductivity above 2 mS/cm was produced and shipped to the WP4 & WP5 partners.