SUBLIME

Solid state sUlfide Based LI-MEtal batteries for EV applications

Deliverable 3.5 Report on delivery of optimized cathode for Primary pathway

Alexander Teklit Tesfaye
Umicore

Sublime is funded by the European Union's H2020 research and innovation programme under GA Agreement no. 875028

Publishable summary

This report aims to provide information for tasks related to Work Package 3 (WP3) of the SUBLIME project. The main objectives of WP3 is material optimization and scale up of high performing and safe all solid-state batteries for EV applications. WP3 is further sub tasked to: (i) WP3.1 – where the main focus is the sulphide solid electrolyte design and upscale; (ii) WP3.2 – Li metal protection design and upscale; (iii) WP3.3 – cathode design and upscale (the main focus of this report).

This report addresses:

• Definition of Gen1: Cathode design for primary pathway (focus on the core chemistry composition and surface treatment to enhance compatibility with SUBLIME electrolyte)

The main benefactors of the WP3 activities are WP4 (Lab electrode and cell preparation) and WP6 (Testing and aging at multi-level cell, safety and sustainability and cost assessment).