

EUROPEAN COMMISSION

HORIZON 2020 PROGRAMME - TOPIC H2020-LC-BAT-2020
Sodium-Ion and sodium Metal Batteries for efficient and sustainable
next-generation energy storage

GRANT AGREEMENT No. 963542



SIMBA – Deliverable Report

<< D4.3 – Report on cathode optimisation >>

Deliverable No.	SIMBA D4.3	
Related WP		
Deliverable Title	Report on cathode optimisation	
Deliverable Date	2022-12-01	
Deliverable Type	REPORT	
Dissemination level	Confidential – member only (CO)	
Written By	Faduma Maddar (WMG), Matilda Folkenant (Altris)	2022-12-06
Checked by	Ivana Hasa (WMG)	2022-12-17
Reviewed by (if applicable)	Hervé Manzanarez (CEA) Zoltán Lenčéš (SAS)	2022-12-23
Approved by	Ralf Riedel (TUDa)	2023-01-02
Status	Final	2023-01-03



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 963542.

Publishable summary

The main goal of the SIMBA project is the development of a highly cost-effective, safe, all-solid-state-battery with sodium as mobile ionic charge carrier for stationary energy storage applications. Although in many ways SIBs are similar to LIBs, there are still a number of persistent scientific and technical challenges to be addressed in understanding electrochemical processes and degradation mechanisms, electrode, solid-state electrolyte and cell manufacturing. SIMBA aims to solve these challenges and pave the way to market introduction. One of the key goals of the SIMBA project is the development of materials and electrode manufacturing to meet such requirements.

Task 4.5 of WP4 focuses on the development and optimisation of the positive electrodes. Herein, two main cathode materials are investigated including a Prussian White (PW) system and a layered oxide material.

This document outlines the activities related to D4.3 reporting on cathode optimisation. The work correlated to this deliverable is the one associated to ST4.5.1 “slurry formulation development”. Partners involved include Altris which focused on developing a refined version of PW containing a lower level of vacancies and hence an enhanced electrochemical performance, and JM focusing on a sodium rich layered oxide cathode. The enhanced materials are shown to be incorporated into the testing/processing protocols agreed by the consortium carried out in WMG.

7. Appendix B - Disclaimer/Acknowledgement



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