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Sodium-Ion and sodium Metal BAtteries for efficient and sustainable next-generation energy storage

GRANT AGREEMENT No. 963542

SIMBA – Deliverable Report

<< D2.3 – Prussian white cathode optimized and tested at coin cell level >>

Deliverable No.	SIMBA D2.3	
Related WP	WP2	
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Publishable summary

The SIMBA project spans from material development to module assembly of sodium-ion batteries (SIBs). Two main classes of cathode materials are investigated in the project, i.e. layered oxides and Prussian blue analogues (PBAs). Among the latter ones, special focus is dedicated to the Prussian White (PW) system developed by Altris, composed by iron, nitrogen, carbon and oxygen, representing a low-cost and sustainable cathode material.

This deliverable reports on the development and optimization of the PW cathode material adopted in the SIMBA project. The work performed within this project has led to a process with shorter reaction time, higher output, and less waste while maintaining the material and electrochemical properties. This report also shows that PW half cells maintain 80 % capacity retention after >1000 cycles, thus proving that this material is a valid and promising cathode material for SIBs.