

Materials recovery from end-of-life electrochemical storage systems: results from the IEMAP project

Federica FORTE - *ENEA*

The goal of the activities “Materials recovery from end-of-life electrochemical storage systems” performed within the framework of the IEMAP (Italian Energy Materials Acceleration Platform) Project was the definition of an eco-innovative process for the recovery of cathodic materials from batteries currently produced, taking into account the future technological trends as well.

The research work here reported refers to a hydrometallurgical treatment process for lithium iron phosphate (LFP) cathodic material which was developed according to a "product-centric" approach, aimed at recovering the greatest number of materials through innovative, efficient and circular technological solutions.

The proposed process was tested also on a larger scale to verify its industrial potential: through the tests, potential issues related to engineering and process management were identified and the operating parameters required for the industrial scale-up were obtained.