

SOMABAT

Project coordinator

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Project partners



www.somabat.eu

Development of novel SOLid MATerials for high power Li polymer BATteries (SOMABAT).
Recyclability of components.

FP7-GC-2010-ELECTROCHEMICAL STORAGE

The project is financially supported by the 7th Framework Programme of the European Commission (Grant Agreement n. NMP3-SL-2010-266090).



Project Aims

SOMABAT aims to develop a more environmentally friendly, safer and better performing high power lithium polymer battery technology targeted for electric vehicle. The focus is on novel breakthrough recyclable solid materials to be used as anode, cathode and polymer electrolyte, new alternatives to recycle the different components and a complete life cycle analysis of the battery.

The consortium is composed of experts in the field and complementary in terms of R&D expertise and geographic distribution.

Objectives

- o Development of synthetic and recyclable materials with controlled properties by new synthesis and processing methods.
- o Development of a new battery management system according to the developed materials.
- o Modelling of Li polymer cell's behaviour.
- o Integration and testing of the optimised materials in lithium polymer cells/battery.
- o Recyclability of the battery components.
- o Analyze the environmental impact and sustainability of the developed lithium polymer battery by a life cycle assessment.

Overall Strategy

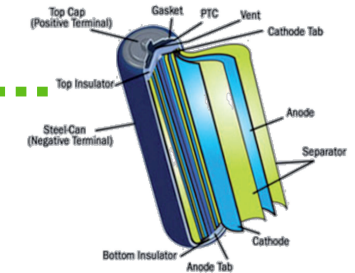
New tailored electrode chemistries and recyclable materials

- Improve electrochemical performance
- Cost reduction

Other battery cell components

Modelling

- Understanding processes taking place in cell performance



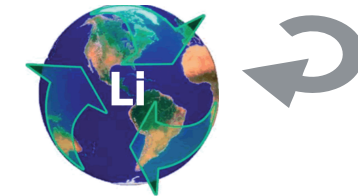
Integration

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Development of novel solid materials for high power Li polymer battery. Recyclability of components

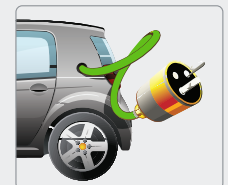
Recyclability and recovery of battery components. Lifecycle analysis of the cell

- Environmental friendly
- Sustainable
- Cost reduction



Expected impact

The expected improvement of the battery sustainability and performance will facilitate the incorporation of electric vehicles to the market.



For more information

www.somabat.eu