

Biobased electrolytes for Li-ion batteries



The Goal of the Project:

This pre-study project aims to evaluate glycerol-based cyclic carbonate solvents as an electrolyte component in lithium-ion batteries. Such solvents are a potentially more sustainable alternative to current solvents, though can suffer from higher viscosity and poorer ionic conductivity. Experimental studies will focus on battery performance testing and ageing.

Expected Result:

This pre-study will connect new researchers at Polestar and Uppsala University, with a joint interest in developing more sustainable and safe components for modern batteries. It will also involve new researchers in SEC-projects that will participate in networking activities. The experimental results will serve as a first basis for identifying necessary research efforts for non-petroleum based electrolyte solvents, and partners for future project applications.

Project Leader: Andrew Naylor

E-mail: andy.naylor@kemi.uu.se