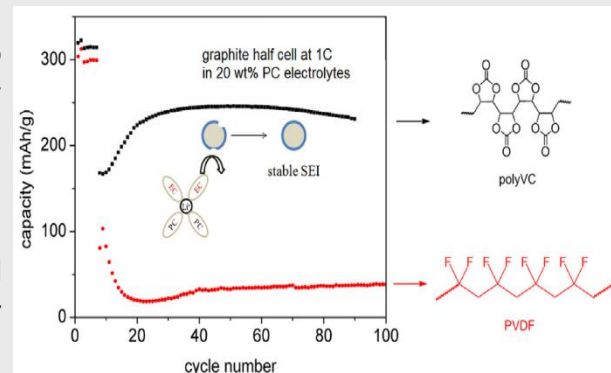


Poly(vinylene carbonate) for SEI Layer in Li-Ion Batteries is a novel material aimed at enhancing lithium-ion battery performance and longevity. This research focuses on synthesizing and characterizing poly(vinylene carbonate) as an **artificial solid electrolyte interface (SEI)** layer, which is crucial for battery stability and efficiency. The material promises to form a stable SEI layer, protecting the battery anode and extending the battery's life cycle.

The synthesis involves different type of polymerization to produce high-purity poly(vinylene carbonate), followed by comprehensive characterization using techniques such as NMR, FTIR, GPC, and XPS to confirm its structure and properties.

Characterization techniques will include electrochemical impedance spectroscopy (EIS), cyclic voltammetry (CV), and battery cycling tests to evaluate the performance of the SEI layer formed with poly(vinylene carbonate)



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Suitable for all types of theses

by students working on their degree in chemistry, material sciences, engineering, energy or any similar studies with training in laboratory practice. The range of the project can be adjusted to suit your interest and the requirements of each thesis.

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