



## Graphene Coated Aluminium Electrode for Li-Ion Batteries

Prof Dr Sivasambu Bohm FRSC & FTSC

## Industry Fellow at Imperial College London

s.bohm@imperial.ac.uk or Jean-marie.mutschler@c-itech.com

## Abstract:

Graphene, a sheet of carbon atoms bound together in a honeycomb lattice pattern, is hugely recognised as a "wonder material" due to its astonishing attributes. It is a potent electrical and thermal energy conductor, extremely lightweight, chemically inert, and flexible with a large surface area. It is also considered eco-friendly and sustainable, with unlimited possibilities for numerous applications. Depending on end applications, graphene can be chemically tuned and modified via functionalisation to incorporate into product matrices easily. This talk discusses Graphene's advanced production methods and industrial applications. Energy storage includes Li-ion batteries, Thermal management via a thermally conductive coating, electrophoretic deposition for Automotive, Anti-corrosion coating and the commercial implementations of multiple products in Global.

**Keywords**: Graphene, Few-Layer Graphene, Graphene industrial scale-up production, Inks and coatings, Graphite, PEM Fuel cells, Li-Ion Battery additives **Reference**:

- 1) Graphene against corrosion. S. Bohm, Nat Nano, 2014. 9(10): p. 741-742.
- 2) Graphene production via Cracking, Philosophical Transaction R. Soc. A379: 20200293 (2021).
- 3) https://www.linkedin.com/in/dr-siva-bohm/