

Nano Science, Technology and Industry Scoreboard

Talga Links up with Bentley Motors to Develop Graphene-enhanced Motor Windings

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Talga Resources announced that it will be part of the OCTOPUS project, and will develop graphene materials for high-performance aluminum motor windings for Bentley Motors.

<u>Talga Resources</u>, battery anode and graphene additives developer, has announced that it has been approved for Innovate <u>UK</u> co-funding to support development of an e-axle designed for <u>Bentley Motors</u>.

The OCTOPUS project aims to deliver the ultimate single unit e-axle solution designed specifically to meet Bentley Motors performance specifications via optimized motor and power electronics technology and materials. The project is funded under the Office for Low Emission Vehicles' and Innovate <u>UK</u>'s "IDP15: The Road to Zero Emission Vehicles" competition.

Under the project Talga will develop and provide graphene materials for the high performance electric motor windings to deliver an aluminium-based solution aimed at outperforming, and ultimately replacing, the copper windings currently used.

The improved motor windings form part of the project's aim of developing next generation lightweight high performance component systems that integrate the latest advanced materials and manufacturing techniques.

The components are to be tested at sub-system and system level for an integration route into future e-axle designs.

Talga Managing Director, Mark Thompson: "We are delighted to engage in jointly developing Bentley Motors' e-axle concept with our consortium partners and are honored to have earned Innovate <u>UK</u>'s continued support. The successful use of Talga graphene material to lend

aluminium the properties required to outperform copper in electric motors would be a big advancement.

For automotive manufacturers this could reduce vehicle weight and increase performance, safety and driving range while retaining sustainability and economics. Lightweight and high performance automotive components perfectly complement our Li-ion battery anode products, and the advancement could pave the way for opportunities to replace copper wire in many large-scale applications globally."

Read the original article on Graphene Info.