Versarien Launches Graphene-based Superparamagnetic Material

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Versarien has announced the launch of a new hybrid nanomaterial that has superparamagnetic properties, which can be used across a range of applications, like defense and healthcare. The new material combines graphene with both iron oxide and manganese oxide nanoparticles and its development was led by Versarien's 62% owned subsidiary, Gnanomat.

The superparamagnetic material combines graphene with both iron oxide and manganese oxide nanoparticles that provide the material with magnetic properties. In return, graphene provides electrical conductivity to these electrically insulating metal oxides. Magnetic nanocomposites can readily respond to external magnetic fields which allow them to be manipulated. Potential applications of the material include the treatment of wastewater whereby pollutants are adsorbed onto the graphene surface. The material could also lends be used in biomedical and biotechnology applications, or defense applications requiring the shielding of electromagnetic fields. Magnetic manipulation could allow the recovery and recycling of the graphene, something that could not be done with normal graphene compounds.

Versarien's CEO, Neill Ricketts, said: "Our superparamagnetic material is the next product for Versarien to launch with its focus on providing efficient and sustainable solutions. Our research and development teams across the Group have been working over the last few years to optimise the use of graphene, and we're pleased to be bringing the next phase of graphene materials to market."

Steve Hodge, CTO at Versarien, commented: "The potential for this material is hugely promising. Versarien is branching out into the next generation of nanomaterials, providing innovation to industries across the globe. The technical properties the superparamagnetic material offers are exciting and show that there is so much more potential for us to find innovative applications for other nanomaterials."

Roberto Clemente, CEO of Gnanomat, said: "We believe this is the beginning of the next wave of nanomaterials. Using graphene combined with metal oxides, there are countless opportunities to change the way we view a number of industries. This superparamagnetic material is just the first step in an extensive line of innovation to come."

Read the original article on Graphene Info.