



A Graphene Sensor for Defect Detection
and Predictive Maintenance in Composite Materials

www.graphosite.co.uk

info@graphosite.co.uk

Graphosite Partner:



DZP Technologies

www.dzptechnologies.com

Who we are

DZP Technologies is a leading developer of specialty materials, formulations, and printing technologies for emerging industries. Founded in 2008, we have been working closely with our customers to create innovative materials for a range of markets, from consumer electronics and wearables, to 3D-printing and renewable energy.

Our scientific expertise and talented team make it possible to fast-track scientific discoveries from lab to market, taking on the toughest technical challenges and helping our customers develop innovative, sustainable products which offer a true differentiator in competitive markets.

Our business strategy is based on partnerships and building trust. Whether we work with a start-up company or a global multinational, our customers enjoy access to our leading edge scientific expertise and innovative products, with fast delivery times and while protecting and respecting their intellectual property. Our strong customer focus combined with our unique products and service offering have gained us clients globally, from the UK, France and Germany, to the US, Singapore and South Korea.

We specialise in aqueous inks and pastes which are both user- and environmentally-friendly. This is fully aligned with industry trends to minimise the environmental impact, while reducing costs and improving performance of new technology.



Products

Off the shelf inks and adhesives



Service

Custom ink development



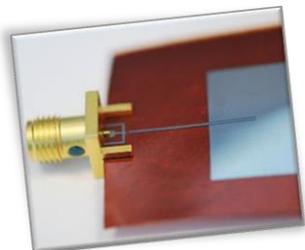
Contract work

Contract R&D, prototyping and small volume manufacture



R&D

Longer term research (e.g. battery electrodes, Innovate UK grants)



Our Product and Services

Silver Conductive Inks

Our products make use of the latest advances in materials science and technology to provide user-friendly, aqueous conductive inks and pastes which match the performance of the conventional solvent inks. Our silver conductive technology provides the following key benefits:

- Low temperature curing (25 – 120 °C) and suitable for printing on heat-sensitive polymers, composites, paper and textiles
- Wide temperature operating range (-65 – 220 °C) and excellent mechanical and environmental stability once cured.



Graphene Inks and Pastes

With a focus on commercially viable technology development, we work in the chasm that often exists between the academic research centres and companies seeking to develop graphene products that fill a market need.

Our portfolio of more than 50 bespoke graphene formulations means that we are likely to already have the best technical solution for a particular application on hand. With no tie to a specific graphene raw material, our primary focus is on the best solution for a specific product, and not the 'take-it-or-leave-it' approach often found with large commercial ink manufacturers which offer off-the-shelf products. We have experience in the following graphene technologies:

- Conductive graphene inks and thick pastes
- Aqueous graphene dispersions
- Graphene energy storage (supercapacitors and batteries)
- Graphene sensors

Our services

- Formulation and development of bespoke inks, pastes and processes according to customer specifications
- Prototyping and small volume production of printed devices
- Technical consultancy, contract R&D and contract product development.

Our Team

Dr Zlatka Stoeva, Cofounder and Managing Director, is responsible for setting the overall strategic direction of the company. She developed the current product and service portfolio and initiated a number of business partnerships and collaborations to commercialise the company's innovations. Zlatka has a scientific background in materials chemistry, including electronic materials, graphene, lithium ion battery materials and polymer chemistry.

Dr Tsegie Faris is a Research Scientist working on experimental characterisation of novel materials, with a particular focus on graphene and 2D materials. Tsegie has an academic background in materials chemistry and organic semiconductor s. She received her PhD degree in 2018 from Brunel University



Main contact in the project:

Dr Zlatka Stoeva
Managing Director

DZP Technologies Ltd

Tel: +44 (0)1223 781191

Mob: +44 (0)7800 757544

Email: zlatka.stoeva@dzptechnologies.com

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