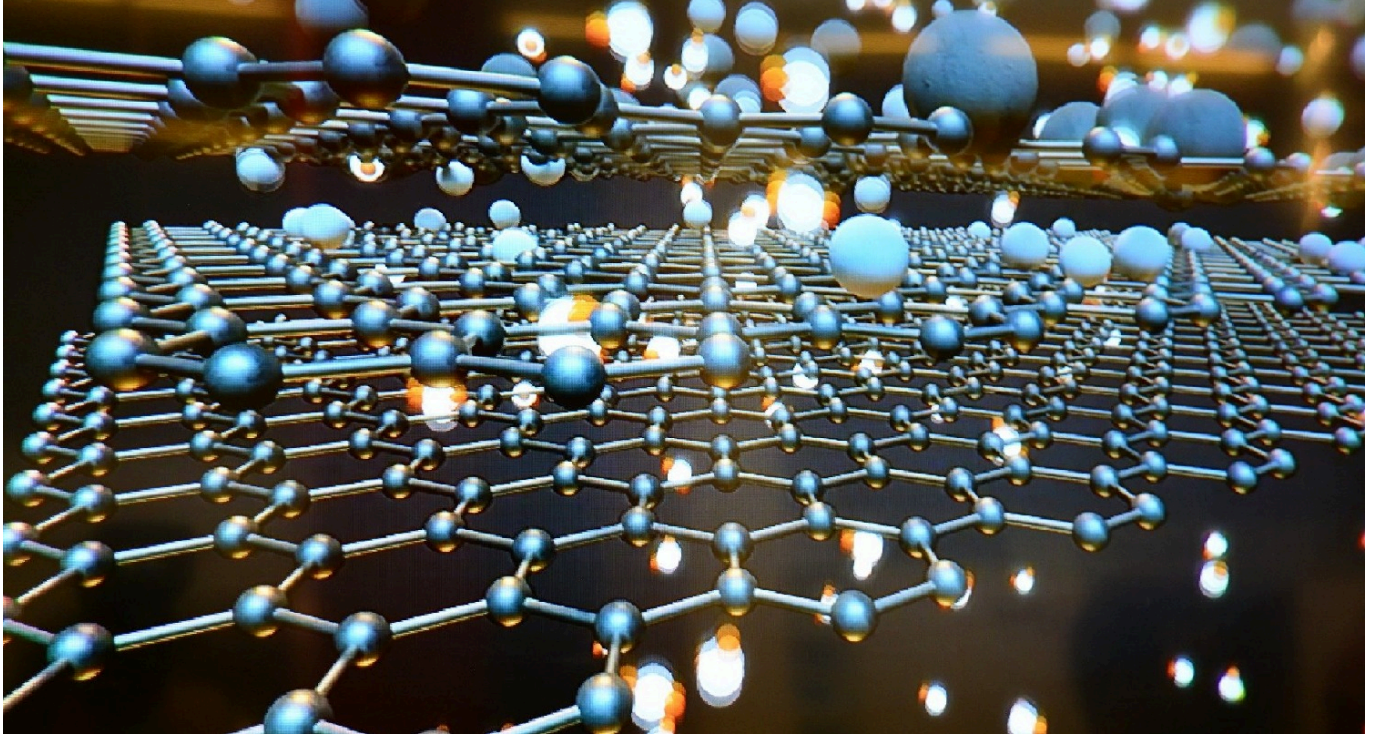


TECH NEED

Seeking Graphene-Based Materials For Use In Heating Applications



KEY INFORMATION

TECHNOLOGY CATEGORY:

Materials - Composites

Materials - Nano Materials

Materials - Metals & Alloys

TECHNOLOGY READINESS LEVEL (TRL): **TRL3 TO TRL9**

COUNTRY: **UNITED KINGDOM**

ID NUMBER: **TN174400**

BACKGROUND/DESCRIPTION

This company is an established electronic device manufacturer for the consumer market. They are continually looking to improve the performance of their products and have identified graphene as a material with several attractive properties that could be beneficial as a heating surface. Graphene is being investigated for use in multiple industries; however, commercial production can still be problematic with potential issues in quality (i.e., reproducibility in material thickness) and difficulties in scaling up production for large volume applications.

The client believes graphene could facilitate rapid heat up and even heat distribution and is therefore actively searching for partners who can help to develop graphene-based materials for use in heating applications.

The company is actively searching for partners to support their product development efforts. They have an established customer base and global operations that provide routes to market for both new and established companies. The company can provide

resources to scale up relevant processes and technologies, including financial investment and joint development. The client is interested in potential collaboration with groups looking to commercialise relevant technologies and companies who will consider a variety of collaborations, ranging from licensing through to joint venture and acquisition.

TECHNOLOGY SPECIFICATION

The company is looking for research organisations, universities or companies with the technology or manufacturing expertise to achieve one or more of the following:

- Production of graphene-based materials - e.g., via chemical vapour deposition (CVD), reduced graphene oxide (RGO), electrochemical exfoliation or other methods;
- Manufacturing of one or more form factors – e.g., porous 3D structures, flexible films/sheets, fibres, meshes, inks etc.;
- Ability to create layers that are 10s of microns thick, with high reproducibility;
- Potential for cost effective mass manufacturing of graphene-based materials/components;
- Production of alternative materials to graphene with similar finished form properties – e.g., high thermal conductivity, low thermal mass, hydrophilicity, chemically inert, ability to form porous or elastomeric structures.

The company is also open to discussions with companies developing graphene-based products for other applications (e.g., for air/water purification, sensors, energy storage, flexible electronics) that may have the relevant manufacturing expertise or technology, with whom they can collaborate.

PREFERRED BUSINESS MODEL

- Business Collaboration (Joint Venture)
- IP Acquisition
- Licensing
- Others
- R&D Collaboration