

Talga Material Found to Improve Graphene-Based Sensor

Talga Resources Ltd

ABN 32 138 405 419

1st Floor, 2 Richardson St,
West Perth, WA 6005

T: +61 8 9481 6667

F: +61 8 9322 1935

www.talgaresources.com

Corporate Information

ASX Code **TLG, TLGOA**

Shares on issue **181.9m**

Options (listed) **44.9m**

Options (unlisted) **34.7m**

Company Directors

Keith Coughlan

Non-Executive Chairman

Mark Thompson

Managing Director

Grant Mooney

Non-Executive Director

Stephen Lowe

Non-Executive Director

• **Talga graphite used to make higher performing graphene-based sensor suitable for widespread environmental, healthcare and automotive applications**

• **Sensor showed a 10 fold increase in sensitivity over other materials**

Advanced materials company Talga Resources Ltd (ASX:TLG) (“Talga” or “the Company”) is pleased to advise that a collaborative scientific study undertaken by the Indian Institute of Technology and Talga (using Talga materials in a sensor application) has been published in the Royal Society of Chemistry Advances journal¹.

The study used Talga's 99.7% purity graphite to construct a graphene sensor for detection of NO₂ in the form of nitrites, a widespread chemical of the natural and industrial world and major component of air and water pollution.

The graphene successfully improved the sensor's sensitivity to NO₂ which was measured to be 10x that of competing sensor materials. In addition, the use of graphene enabled a simpler more eco-friendly production process and lowered the amount of expensive active ingredients.

Applications and Markets

Sensors to detect nitrite compounds have widespread applications that include:

- Transport, particularly noxious engine emissions;
- Farming and aquaculture;
- Healthcare; and
- Food preservatives and retailing.

The drivers for sensor applications are increasing demands for better environmental health, better resource utilisation and lower pollution.

Talga Managing Director Mark Thompson commented: “*The published results support that Talga’s base products can be used in multiple applications and indicates new demand possibilities for Talga graphite and graphene materials in the multi-billion dollar global sensor market. As we are focusing on larger volume applications in our products strategy we will seek partners to advance our materials in this sector.*”

For further information, visit www.talgaresources.com or contact:

Mark Thompson
Managing Director

Talga Resources Ltd
T: + 61 (08) 9481 6667

Jeremy McManus
Commercial Manager

Talga Resources Ltd
T: + 61 (08) 9481 6667



References:

1 ***One step eco-friendly synthesis of Ag-reduced graphene oxide nanocomposite by phyto-reduction for sensitive nitrite determination*** A Shaikh, S Parida and S Böhm, RSC Advances Journal, Royal Society of Chemistry October 2016.

About Talga

Talga Resources Ltd ("Talga") (ASX: TLG) is an advanced material minerals company developing graphene and micrographite products for the coatings, energy storage, construction products and composites markets. Talga products have significant potential advantages in performance, value and application owing to unique ore and patent pending process technology.

Talga sources graphite ore from its 100% owned deposits in Sweden, with pilot test processing at the Company's pilot test facility in Germany. Collaborative testing is underway with a range of corporations including industrial conglomerate Tata, UK listed Haydale and German based Jena Batteries.