

13 October 2017



**Graphene Production Patent Awarded  
in the United States**

**Highlights**

- **Graphene production patent awarded to Lanka Graphite research partner, National Taiwan University of Science and Technology**
- **Modified Graphene suitable for thermal management, electrical devices, energy storage and conversion and for battery anodes**
- **Lanka Graphite in discussions with high value end users for product testing**

Lanka Graphite (ASX: LGR), (the Company) is pleased to report a further milestone achievement in its strategic collaboration with the National Taiwan University of Science and Technology (NTUST) with the granting of a new graphene production patent in United States.

This granted patent relates to a method of producing graphene via Liquid Phase Exfoliation (LPE) method in particular, via the use of intercalating molecules to produce a modified graphene. This patent was previously been lodged and granted in Taiwan as announced by Lanka in November 2016. Results from trials and research conducted by researchers at NTUST have shown that the graphene produced via this patented technology reduces the required amount of concentrated sulphuric acid by 90% as compared to conventional methods, and provides a manufacturing yield of up to 100%.

The modified graphene is suitable for applications in thermal management, electrical devices, energy storage and conversion and for battery anodes.

Emily Lee, the Managing Director of Lanka Graphite commented, "Lanka Graphite is very pleased that the continued research undertaken on samples sourced from the Company's exploration tenements in Sri Lanka has shown outstanding success proving that the high grade nature of this unique vein graphite can be well utilised in high value applications."

**ASX:**LGR

**Shares on Issue**  
81,740,085

**Registered Office**  
ACN:074976 828  
Suite 31, Level 18  
101 Collins Street  
Melbourne, VIC 3000  
Australia

**Directors**  
Mr Jitto Arulampalam  
Ms Emily Lee  
Ms Alison Coutts

**Email**  
[info@lankagraphite.com.au](mailto:info@lankagraphite.com.au)

## About National Taiwan University of Science and Technology (NTUST)

NTUST is a public/national technological university located in Taipei, Taiwan. Established in 1974, as the first and the leading higher education institution of its kind within Taiwan's technical and vocational education system. The university is ranked 353 among world universities in the Times Higher Education-QS World University Rankings 2013. The university is also ranked 52 among Asian universities in the Times Higher Education-QS World University Rankings 2013. NTUST Taiwan was also ranked as Asia's 10th best institute in science and technology.

### Professor Wei-Hung Chiang, NTUST

Professor Chiang is the Associate Professor of the Department of Chemical Engineering at the National Taiwan University of Science and Technology. His research specialty areas are plasma processing, catalytic reaction, and nanomaterials science and technology. His work has been recognised by scientific publications in high impact journals such as Nature Materials, ACS NANO, and Advance Materials, by mainstream media such as Forbes Magazine and Science Daily, and by international conferences (Materials Research Society, and American Institute of Chemical Engineers).

### Graphene

Derived from very high purity graphite as a 2D sheet of pure sp<sup>2</sup> -bonding carbon atoms, one atomic-scale layer thick, has exceptional mechanical, electrical, thermal and chemical properties. Early research shows that the one-atom thick Graphene is one of the strongest and most electrical conductive materials explored in the world with a wide range of industrial applications in the fields of electronics, energy, medical, aerospace and various technology.

### Justyn Stedwell Company Secretary

For further information regarding this release or other company enquiries please contact:

Emily Lee  
Managing Director  
Lanka Graphite Limited  
+61 (0)3 9221 6394

Jitto Arulampalam  
Executive Chairman  
Lanka Graphite Limited  
+61 (0)3 9221 6394

### About Lanka Graphite

Lanka Graphite Limited (ASX:LGR) is an ASX listed graphite exploration company that is focused on exploration of a number of historic and new mining tenements in Central and South Western Sri Lanka. Historic mining at a number of the granted tenements produced very high grade 'lump' or vein style graphite with grades >95%C. High purity vein graphite was historically produced from Lanka's tenements at a grade that is also well suited to graphene derivation. Lanka Graphite will commence production of its granted tenements with the intention to develop high grade graphite production that can supply nearby Asian end user companies particularly focused on new technology graphene applications. Lanka Graphite maintains the largest portfolio of identified high-grade vein graphite Exploration Licenses in Sri Lanka. At many of the EL's vein graphite outcrops at surface or has been historically mined at shallow depths.