

11 December 2012

The Manager

Market Announcements Platform

## BLUGLASS DEMONSTRATES PROMISING PRELIMINARY p-GaN RESULTS

### KEY POINTS

- **BluGlass has succeeded in its preliminary research to produce low temperature p-GaN using RPCVD**
- **Results represent early stage development of p-GaN**
- **On track to demonstrate the benefits of RPCVD and accelerate commercialisation.**

BluGlass has announced today that it has been successful in its initial laboratory experiments in the development of p-type gallium nitride (p-GaN), an essential material that makes up the top layers of a nitride LED.

The company has, using its low temperature Remote Plasma Chemical Vapour Deposition (RPCVD) technology, produced a p-GaN layer on a commercially grown MOCVD 456nm blue multi-quantum well structure.

Preliminary testing has been carried out on the sample using a 0.5 mm diameter size p-type indium contact. The light output was measured with a UV-detector positioned under the wafer calibrated at the wavelength of the light emission.

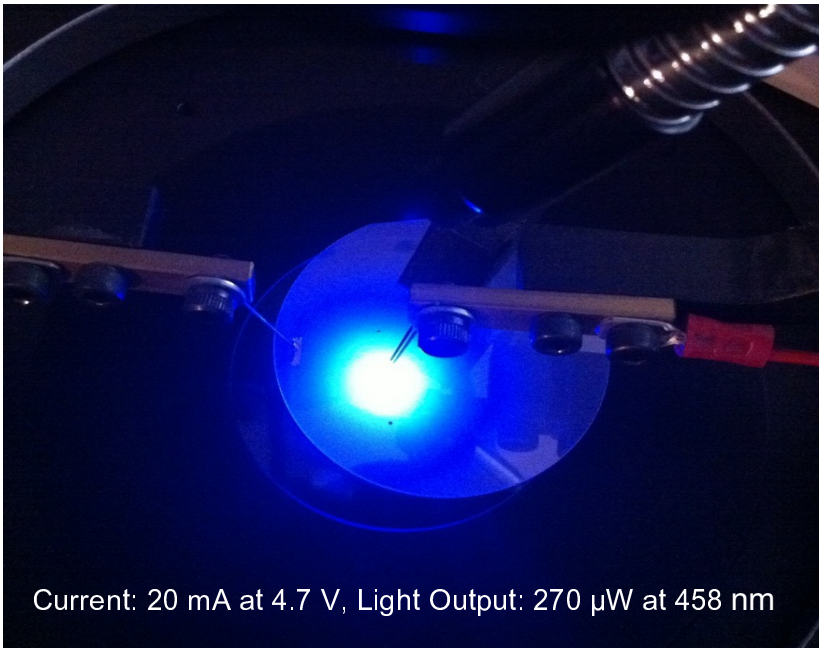
- At 20 mA, 4.7V the light output was 270  $\mu$ W (Light emission at 458 nm, Full Width Half Maximum of 19 nm)
- At 50 mA, 5.5V the light output was 1.23 mW (Light emission at 456 nm, Full Width Half Maximum of 18 nm) – the current was applied continuously for more than 60 minutes without the loss of function of the device.

Recently at the Company's Annual General Meeting, BluGlass outlined that it was looking to demonstrate p-GaN and identified a number of steps in order to demonstrate improved LED efficiency with a low temperature process. BluGlass CEO Giles Bourne said today "While these results are preliminary, they represent highly encouraging progress, ahead of our expectations, towards our next major milestone to prove that a low temperature technology can improve the efficiency of an LED".

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74 ASQUITH STREET  
SILVERWATER NSW 2128  
P + 61 (0)2 9334 2300  
F + 61 (0)2 9748 2122

[WWW.BLUGLASS.COM.AU](http://WWW.BLUGLASS.COM.AU)



**Figure 1: Demonstration of light emission from an RPCVD p-GaN layer grown on a MOCVD grown multi-quantum well structure.**

Current: 20 mA at 4.7 V, Light Output: 270  $\mu$ W at 458 nm

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**About BluGlass:** BluGlass Limited is an Australian green technology company formed to commercialise a breakthrough in the Semiconductor Industry. BluGlass has invented a new process using Remote Plasma Chemical Vapour Deposition (RPCVD) to grow semiconductor materials such as gallium nitride (GaN) and indium gallium nitride (InGaN), crucial to the production of high efficiency devices such as next generation lighting technology Light Emitting Diodes (LEDs) with advanced low cost potential.

The RPCVD technology, because of its low temperature and highly flexible nature, offers many potential benefits over existing technologies including higher efficiency, lower cost and greater scalability.

Contact: Stefanie Winwood +61 2 9334 2302, [swinwood@bluglass.com.au](mailto:swinwood@bluglass.com.au)