

### **TECHNOLOGY**

# Formation of Carbon Nanotubes on Large Free Floating Substrates

## **OVERVIEW**

There are several methods employed to make carbon nanotubes. These methods include chemical vapor deposition (CVD), arc discharge and laser ablation. In general, the CVD method has shown the most promise in being able to produce larger quantities of nanotube (compared to the other methods) at lower cost.

The CVD method is usually done by reacting a carbon-containing gas (such as acetylene, ethylene, ethanol, etc.) with a metal catalyst particle (usually cobalt, nickel, or iron) at temperatures above 600°C. However, even this method fails to produce large quantities of nanotubes of uniform diameters.

Researchers at the University of Maryland have developed methods for producing, pure high density nanotubes of relatively uniform diameters (

For more information or for licensing details please contact the University of Maryland Office of Technology Commercialization 301 405 3947 or by e-mail otc@umd.edu

### CONTACT INFO

UM Ventures 0134 Lee Building 7809 Regents Drive College Park, MD 20742

Email: umdtechtransfer@umd.edu

Phone: (301) 405-3947 | Fax: (301) 314-9502

# **Additional Information**

## INSTITUTION

University of Maryland, College Park

## **CATEGORIES**

• Nanotechnology + Nanoparticles + Nanomaterials

## **EXTERNAL RESOURCES**

US Patent 8,628,747

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