

Request Information

Permalink

# Pure Nanotubes Grow From Nanotubes

Tech ID: 34157 / UC Case 2006-529-0

## BRIEF DESCRIPTION

A revolutionary method for synthesizing nanotubes that eliminates common impurities and defects, enabling faster production.

## FULL DESCRIPTION

This technology presents an improved method for synthesizing nanotubes, including both single- and multi-walled, metallic, or semiconducting nanotubes, without the need for a catalyst. By starting from seed nanotubes, this method overcomes the traditional challenges of slowness, impurities, and defects typically associated with as-grown carbon nanotubes. This novel approach not only simplifies the production process but also opens the door to industrial-scale manufacturing of nanotubes for various applications.

## SUGGESTED USES

- » Manufacturing of integrated nanotube circuits for electronics.
- » Production of advanced materials for aerospace, automotive, and construction industries.
- » Development of high-performance sensors and energy storage devices.
- » Creation of novel biomedical devices and drug delivery systems.

## ADVANTAGES

- » Eliminates the need for a catalyst in the growth process, reducing production costs.
- » Significantly reduces the presence of impurities and defects in the final product.
- » Allows for the direct growth of both single- and multi-walled nanotubes.
- » Enables faster production times compared to traditional methods.
- » Facilitates industrial scaling for mass production of nanotubes.

## PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	8,343,581	01/01/2013	2006-529

## CONTACT

Edward Hsieh  
hsiehe5@uci.edu  
tel: 949-824-8428.



## OTHER INFORMATION

### CATEGORIZED AS

- » **Energy**
  - » Storage/Battery
- » **Semiconductors**
  - » Materials
- » **Sensors & Instrumentation**
  - » Other

### RELATED CASES

2006-529-0

**UCI** Beall  
Applied Innovation

5270 California Avenue / Irvine, CA  
92697-7700 / Tel: 949.824.2683



© 2025, The Regents of the University of  
California  
[Terms of use](#)  
[Privacy Notice](#)