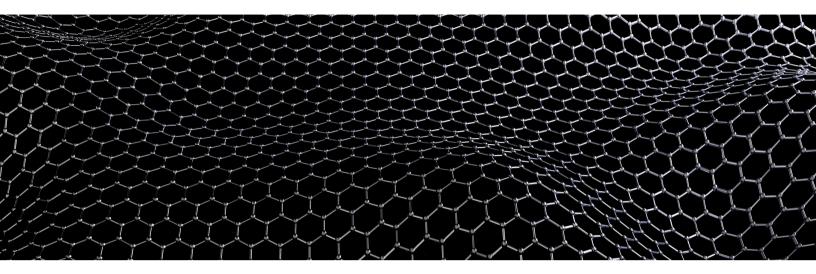
# NANOTECHNOLOGY

ADVANCEMENTS - BREAKTHROUGHS - INDUSTRY NEWS



### MOST RECENT BREAKTHROUGHS & ADVANCEMENTS

# GOING CHIRAL: BREAKTHROUGH IN SYNTHESIZING CARBON NANOTUBES WITH PRECISE CHIRALITY

Reference: Science Daily, October 22,2024. https://www.sciencedaily.com/releases/2024/10/241022132903.htm

# >>> READ MORE

Researchers have achieved a significant breakthrough in the synthesis of carbon nanotubes (CNTs) by developing a novel catalyst that allows for precise control over their atomic arrangement, known as chirality. This advancement paves the way for the creation of innovative semiconductor devices, addressing a challenge that has remained unresolved for over 30 years.

# READ MORE <<<

Evanston, IL - Professors Nathan Gianneschi of the International Institute for Nanotechnology at Northwestern University in collaboration with Jeffrey A. Johnson and Delinda A. Johnson, senior scientist, of the University of Wisconsin-Madison School Pharmacy, of groundbreaking research with the potential to alter the treatment landscape for neurodegenerative diseases (NDs). The study, published in the esteemed journal Advanced Materials, titled "Inhibiting the Keap1/Nrf2 Protein-Protein Interaction with Protein-Like Polymers," introduces a pioneering approach aimed at combating conditions such as Alzheimer's disease, Parkinson's disease (PD), and Amyotrophic lateral sclerosis (ALS).

BREAKTHROUGH IN TARGETING 'UNDRUGGABLE' PROTEINS PROMISES NEW HORIZON FOR NEURODEGENERATIVE DISEASE TREATMENT

Reference: Northwestern / IIN, February 16,2024. https://www.iinano.org/neurodegenerative-breakthrough/





### **MOST RECENT BREAKTHROUGHS & ADVANCEMENTS**

### THE CLIMATE CRISIS IS A CALL FOR ACTION FOR NANOTECHNOLOGY

Reference: Nature Nanotechnology, October 15, 2024. https://www.nature.com/articles/s41565-024-01818-8

The Nano4EARTH challenge, launched by the National Nanotechnology Initiative in the United States, has identified four strategic areas where nanotechnology can make the most impact in addressing the climate crisis.



>>> READ MORE

# **BREAKTHROUGH IN NANOTECHNOLOGY:** VIRUS NANOTECHNOLOGY FOR INTRATUMOURAL IMMUNOTHERAPY

Reference: Nature Reviews Bioengineering. September 24, 2024. https://www.nature.com/articles/s41565-024-01818-8

Scientists have made a groundbreaking discovery in the field of nanotechnology. They have developed a novel microscopy method that allows for the unprecedented visualization of nanostructures and their optical properties.



>>> READ MORE

# NANOSURGICAL TOOL COULD BE KEY TO CANCER BREAKTHROUGH

Reference: Science Daily, March 6, 2024. https://www.nature.com/articles/s41565-024-01818-8

A groundbreaking nanosurgical tool -- about 500 times thinner than a human hair -- could be transformative for cancer research and give insights into treatment resistance that no other technology has been able to do, according to a new study.





### **UPCOMING CONFERENCES**



International Conference Nanomaterials, Nanodevices, Fabrication and Characterization

Barcelona, Spain | April 6 - 8, 2025

### **PLENARY SPEAKERS**

Dr. Raul Arenal

Laboratorio de Microscopias Avanzadas, Spain

Dr. Witold Musial

Wroclaw Medical University, Poland

Dr. Philippe Knauth

Dr. Borja Sepúlveda

Institute of Microelectronics of Barcelona, Spain

**MORE INFO** 

Nanomedicine, Drug Delivery, and Tissue Engineering

### **PLENARY SPEAKERS**

Dr. Michael Xianfeng Chen The University Of Edinburgh, UK

**Dr. Seungpyo Hong** 

University of Wisconsin-Madison, USA

### **KEYNOTE SPEAKERS**

Dr. Sourav Bhattacharjee

Dr. Maciej Serda

Dr. Maria Stepanova

**MORE INFO** 

9th International Conference of Theoretical and Applied Nanoscience and Nanotechnology

London, UK | July 13 - 15, 2025

**Prof. Carole Perry** Nottingham Trent University, UK

Prof. Federico Rosei Nottingham Trent University, UK

### **KEYNOTE SPEAKERS**

**Prof. Igor Aharonivich** Nottingham Trent University, UK

Dr. Rachel Won

Nottingham Trent University, UK

**MORE INFO** 



16th International Conference on Nanotechnology: **Fundamentals** and Applications (ICNFA 2025)

Paris, France | August 21 - 23, 2025

PLENARY SPEAKERS AND KEYNOTE SPEAKERS ARE TO BE ANNOUNCED.

**MORE INFO** 

### INDUSTRY NEWS

# NANOSCALE TRANSISTORS COULD ENABLE MORE EFFICIENT ELECTRONICS

Reference: MIT News, November 4, 2024. https://news.mit.edu/2024/nanoscaletransistors-could-enable-more-efficient-electronics-1104

Researchers are leveraging quantum mechanical properties to overcome the limits of silicon semiconductor technology.



>>> READ MORE

### NEWTECH '24 / ICNFA '24

Barcelona, Spain | August 21 - 23, 2024



# REGISTER TO OUR UPCOMING CONFERENCES TO LEARN, DISCOVER, & NETWORK.

**INTERNATIONAL-ASET.COM** 

info@international-aset.com









UNIT NO. 104. 2442 ST. JOSEPH BLVD. ORLÉANS ONTARIO, CANADA





