

看不見的尺度 奈米展示專區 Nanometer-The Invisible Scale



Size : 260 m²
 Funded by MOST
 Interactive exhibits : 21
 Video : 12



“Nanometer--The Invisible Scale” special exhibition hold by Taiwan National Science and Technology Museum is characterized by its mechanical interactive exhibits. The exhibition concept is focused on observing the nanometer phenomenon, simulating the classic experiment, and displaying the related principles.



Nanometer-The Invisible Scale

Introduction

The term “nanometer” is a length scale of 10^{-9} m.



Magnification Station

The amazing world under the digital microscope.



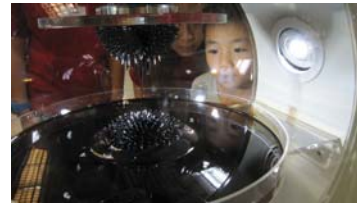
Exploring Image

How can you make the images clearer?



Static Electricity and Gravity

Which will win? Depend on the size of the balls



Ferrofluid

Ferrofluids are black-colored liquids that contain magnetic nanoparticles.

Science Station

The definition of a nanomaterial is that it must possess at least one dimension under 100nm and new physical properties.



Magic of Shrinking

A new special quality, found with the discovery of nanomaterials.

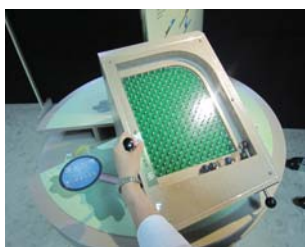


Atomic Manipulation

Arrange the atoms within limited time.

Nature Phenomena

Nanoscale Phenomena in Nature.



Lotus Effect

The nanostructure of lotus leaves reduces the contact surface between water and lotus leaves.



Nanoparticle shows up!

That light! Nanoparticles have nowhere to hide.



Butterfly Wing's Effect

Observe the beautiful colors on the wings of the butterflies.



Nano Detectors-Antibody

Using antibodies to detect the antigens

Nanometer- The Invisible Scale



Carbon Nanostructures

Through different arrangements, carbon atoms can form graphite, diamond, buckminsterfullerene and carbon nanotubes.



- A Nobel Prize from the Adhesive Tape—Graphene

A single sheet of graphite is called graphene. The Nobel Prize in Physics 2010 was awarded to two scientists who isolated graphene by using adhesive tapes.



- Build a Carbon Nanotube

Construct carbon nanotubes by using carbon atoms.

In the Future

Today's research, tomorrow's practice. This section shows some research highlight in Taiwan: biomedicine, semiconductor and physics.



Nanogold and Cancer Treatment

The use of nanotechnology on medical treatments mainly focuses on cancer treatment.



Nanoimprint

This method can also be applied to the thriving flexible electronics industry

Nano products and nanoMark



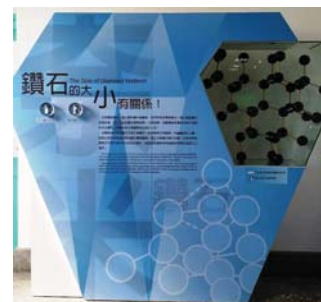
Nanothermal Insulation Coatings

A kind of nano-coating can insulate against heat and maintain good daylighting.



Antibacterial Material-Nanosilver

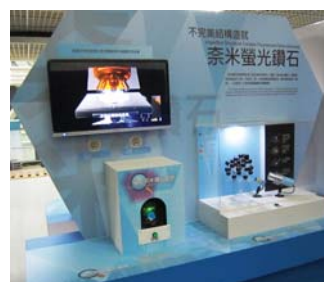
Nanosilver cannot develop drug resistance.



Nanodiamond

The larger size of diamond is more treasured for jewelers, but it is opposite for some scientists.

Tracking stem cells with fluorescent nanodiamonds



Nanodiamond as a missile to kill cancer

