

看不見的尺度 奈米特展 Nanometer-The Invisible Scale



Size : 260 m²
Funded by MOST
Interactive exhibits : 20
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?

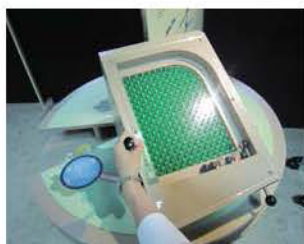


Static Electricity and Gravity

Which will win? Depend on the size of the balls

Nature Phenomena

Nanoscale Phenomena in Nature.



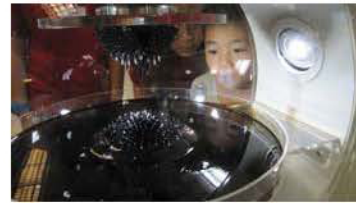
Lotus Effect

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



Butterfly Wing's Effect

Observe the beautiful colors on the wings of the butterflies.



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.



Nanoparticle shows up!

That light! Nanoparticles have nowhere to hide.



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.

In the Future

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



- 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.



Nanogold and Cancer Treatment

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



- Build a Carbon Nanotube

Construct carbon nanotubes by using carbon atoms.



Nanodiamond

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

Nano products and nanoMark



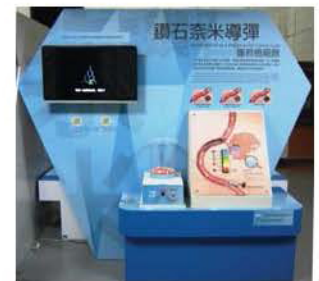
Nanothermal Insulation Coatings

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

Tracking stem cells with fluorescent nanodiamonds



Nanodiamond as a missile to kill cancer



Antibacterial Material-Nanosilver

Nanosilver cannot develop drug resistance.

The above introduction is for reference only, and the actual display will be based on the on-site situation.