



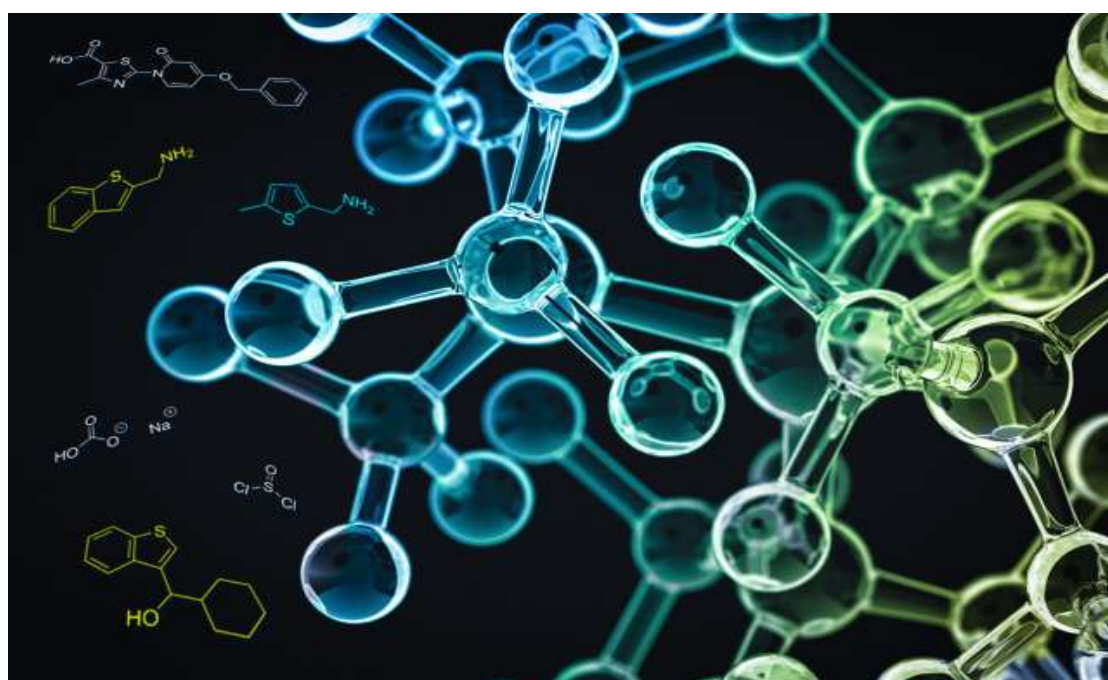
AL-Mustaqbal University College
Radiology Techniques Department

First Class

Theoretical General Chemistry

Second lecture (2)

Nano chemistry application



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Nano chemistry application

Nano chemistry: is associated with synthesis of building blocks which are dependent on size, surface, shape and defect properties.

Silica, gold, polydimethylsiloxane, cadmium selenide, iron oxide and carbon are materials that show the transformative power of Nano chemistry.

Applications



1-Medicine

One highly researched application of Nano chemistry is medicine. A simple skin-care product using the technology of Nano chemistry is sunscreen. Sunscreen contains nanoparticles of zinc oxide and titanium dioxide.

A. Drug delivery

Emerging methods of drug delivery involving nanotechnological methods can be advantageous.

B. Tissue engineering

Because cells are very sensitive to Nano topographical features, optimization of surfaces in tissue engineering has pushed the frontiers towards implantation.

C. Wounds

For abrasions and wounds, Nano chemistry has demonstrated applications in improving the healing process. Electro spinning is a polymerization method used biologically in tissue engineering, but can be functionalized for wound dressing as well as drug delivery.

2- Electrics

A. Nano wire compositions

Scientists have also devised a large number of nanowire compositions with controlled length, diameter, doping, and surface structure by using vapor and solution phase strategies.

They have concluded that using short wavelength Nano lasers have applications in different fields such as optical computing, information storage, and microanalysis.

3-Catalysis

(Nano enzymes) or Nanozymes

Nanostructure materials mainly used in nanoparticle-based enzymes have drawn attraction due to the specific properties they show.

*What is nanotechnology in chemistry?

1-Study beginning, small word, beginning, the word small or mini, means "dwarf", the word "Nano" means very small or miniature size.

2- Nano science and nanotechnology is a study that is realized in very small cases and can be used in all other fields of science, such as chemistry, biology, physics, materials.

3- Science and engineering. I make the information I made in the sources of chemicals to get more information on how to get more information.