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Nanochemistry

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Abstract

Nanochemistry unites – unsurprisingly – nanoscience and chemistry. Nanochemists work from the atom up, with the aim of engineering nanosized materials. They use variety of methods to organize and assemble 'little pieces of matter' which display unique magnetic, electronic, optical, chemical and mechanical behaviors attributable only to their nanometer size.

Keywords: Nanochemists; Nanotubes

Introduction

It represents a completely unique approach to putting together devices atom by atom, with molecular scale precision. It involves studying synthesis and characterization of materials on the nanoscale, focussing on how the atoms behave and interact, and the way they will be manipulated and controlled in chemical reactions at the atomic level.
Scaffold- based libraries.

It centres on understanding the new rules of behaviour which emerge on the nanoscale. Since all of the atoms during a nanoparticle are present on the surface, these particles exhibit chemical and physical properties that differ from the individual or aggregates of atoms or molecules. Such systems lie at the junction between classical and quantum behaviour and display actions that don't exist in larger devices. Nanochemistry also focuses on how these individual atoms can assemble into larger molecules and therefore the behaviour they exhibit.

Uses

Nanochemistry has uses in chemical, physical and materials science, engineering and biological and medical applications. Using single atoms as building blocks offers new ways to make innovative materials, the chance to make the littlest features possible in integrated circuits and therefore the chance to explore quantum computing for instance .
It might seem relatively new, but nanochemistry has been employed for several years, for instance in sunscreens that absorb UV light, in clear coatings for cars which protect the brilliant paint colors underneath, or in carbon nanotubes for lightweight car parts or sporting equipment. It's been wont to study the health and safety effects of airborne and waterborne nanosized particulates, and nanoparticles are wont to clear up or neutralizes pollutants.
Nanochemistry also features a use in lab-on-a-chip technologies which are designed to hold out complex chemical processes on an ultra-small scale. Applications might include synthesizing chemical efficiently, combinatorial chemistry, and biological, chemical and clinical analyses. It's also find applications in medicine in drug delivery and wound and tissue engineering.

Conclusion

Nanocomposites constitute the big variety of systems composed of dissimilar components mixed at the nanometer level.

References

1. Sergeev (2007) Nanoparticles in Science and Technology. Nanochem. 175-208.