NANOTECHNOLOGY

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WHAT IS NANOTCHNOLOGY EXACTLY?

It is a technology that works with particles smaller than 1 billionth of a meter. But It concerns multiple fields of studies.

THE HISTORY OF NANO

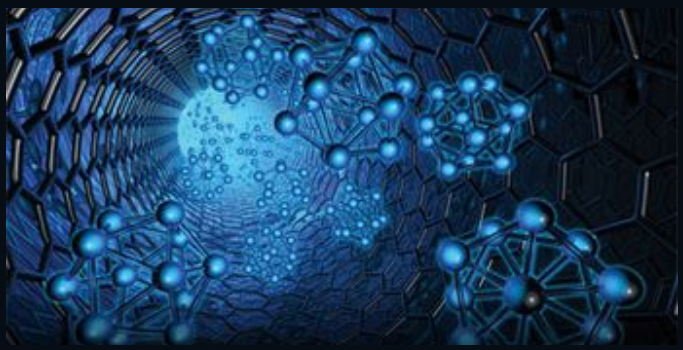
First, Micheal Faraday concluded that nanoparticles exist. But then, physicist Freyman came up with the theory, this laid the foundation for the technology.
The introduction of computers has lead to the rise of nanotechnology.

NANOTECHNOLOGY AGAINST CLIMATE CRISIS

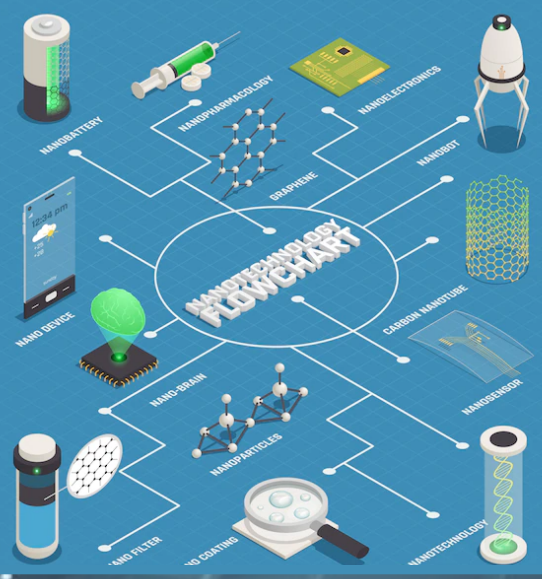
Nanotechnology can be useful to solve the climate crisis. Thanks to their large surfaces, nanomaterials can interact a lot with pollutants. For example, carbon nanotubes are able to absorb oil into water. Titanium dioxide nanotubes instead split water into his chemical components, and then others nanomaterials can store hydrogen to use it as a source of energy. Issues are extremely big, but solutions are really small!

NANOTECHNOLOGY IN EVERYDAY LIFE

Nanotechnology is used in our daily lives much more often than you would suspect. It has already been integrated into our daily lives on a large scale. Think, for example, of PET bottles who contain nanoparticles, which increase the shelf life of soft drinks. It is already widely used in food and industry, we just do not give it much thought.



The use and research of nanotechnology has increased enormously because it has so many possibilities:



CAN NANOMATERIALS BE HARMFUL AND RISKY?

The dark side with new technologies is that we don't exactly know what their impact will be.
Many disadvantages are still not known. But some risks have already been found with nanotechnology such as damage to DNA and infected lungs through inhaling nanoparticles.
Nanotechnology has many applications, but is it safe?

NANOTECHNOLOGY AND MEDICINE

Nanotechnology can be used for the treatment of lots of deseases. For example there are molecular tools that can find internal problems which are difficult to detect.
Nanoparticles are also specialised so that they can bring a medecine to a specific part of the body improving and extending its effect. This is very usefull against cancers because traditional chemiotherapy damages healthy cells too.
These are only some examples of what nanomedecine can do but research are many even if they are very expensive!

WHAT IS THE FUTURE OF NANOTECHNOLOGY?

Scientists think that nanotechnology will develop in the course of the years following four types of generations:
-passive nanostructure (materials science)
-active nanostructure (applications in medicine)
-nanosystems (advanced systems: nanorobotics)
-molecular nanosystems (nanomachines, improved control on nanostructures)