

The prefix "nano" has been increasingly applied to various fields of information over the last decade. Nanoscience, nanotechnology, nanomaterials, and nanochemistry are only a few of the latest nano-related concepts that have become commonplace in research journals, mainstream books, and newspapers, and have become familiar to a broad audience, including non-experts. The prefix comes from the ancient Greek *o*, which is derived from the Latin *nanus*, which means dwarf and, by extension, very thin. It is used to signify a reduction factor of 10^9 times in the International System of Units (SI) convention. As a result, the nanoscale universe is commonly measured in nanometers ($1\text{nm} = 10^{-9}\text{ m}$) and includes structures with a size of less than one nanometer above molecular dimensions and below .(macroscopic ones (generally 1 nm and 100 nm