 Fascination at Gulf of Oman

پژوهشگاه دانشگاه علوم پزشکی بوشهر، پژوهشگاه زیست پزشکی خلیج فارس، مرکز تحقیقات زیست فارسی دریای خلیج فارس

E-mail: azareei@alum.sharif.edu
**Book review**

**Nano physics & Nano technology**

*Eng. Akh. Zaree*


_Bushehr University of Medical Sciences, 2012, 191 pages, $ 2.5_

During last decades, there are a lot of emphases on studying material behavior in atomic scale. In most scientific and engineering fields, one can see the effect of nanotechnology. The aim of nanoscience is to design and fabrication of new and applicable materials. Nowadays, Nano is a popular science which chemists, physicist, doctors, engineers, financial managers and environment's fans for creating a good life via nanoscience have a great cooperation with each others. Materials in nano scale such as nanotubes and nanowires have extraordinary properties which by optimization of these properties in nano scale and then develop these properties to macro scale, they've been challenging issues. For instance, materials in nano scale improve mechanical properties of polymers and metallic materials via nano particles and on the other hand by producing a thin film on surfaces improve surface hardening. Besides, nanotechnology is in hi-tech industries such as magnetic devices, surface coating, and biomaterial, material having sensors, polymers, gels, ceramics and intelligent membrane. Nano-carbon tubes are considered intelligent due to the fact that they couple electrochemical and elastic properties simultaneously, hence have greater activation energy density in comparison with other intelligent materials.

Studying nanoscience is important because it causes the life to be better. Future Materials and structures will have a lot of outstanding properties. Intelligent machines can repair, recycle and reconstruct themselves. All these features are only possible in nano zone. Nano in engineering science can provide the possibility of making light missiles for exploring space. The reduced weight can be achieved by replacing traditional materials with hybrid nanocomposites.

*Address for correspondence: The Persian Gulf Marine-Medicine Biotechnology Research Center, The Persian Gulf Biomedical Institute, Bushehr University of Medical Sciences, Bushehr, IRAN; E-mail: azareei@alum.sharif.ebu*