

Green Nanotechnology: aims and expedients

Oleg Figovsky

Dmitry Beilin

*Polymate Ltd.-International Nanotechnology
Center (Israel)*

oleg@figovsky.com

Green nanotechnology aims to develop clean technologies to minimize potential environmental and human health risks associated with the manufacture and use of nanotechnology products, and to encourage replacement of existing products with new nanomaterials that are more environmentally friendly. The most important component of nanotechnology is nanomaterials, i.e. materials with the ordered structure of their nanofragments having size from 1 to 100 nm. The production and process aspects of green nanotechnology involve both making nanomaterials in a more environmentally benign fashion and using nanomaterials to make current chemical processes more environmentally acceptable. The paper contains information about advanced nanomaterials can be produced without harming the environment or human health. This encompasses the production of nanomaterials without environmental toxicity, at room temperature and with the use of renewable energy sources. The paper contains the descriptions and results of theoretical and experimental researches in the field of environment friendly nanotechnology carried out over the past decade by scientific team of company Polymate Ltd.-International Nanotechnology Center