

*Oleg Figovsky*

## **ADVANCED ENVIRONMENT FRIENDLY NANOTECHNOLOGY**

*International Nanotechnology Research Center Polymate; Israel  
Nanotech Industries, Inc., CA, USA*

Polymate Ltd – International Nanotechnology Research Center (Polymate-INRC) specializes in providing applied and theoretical research and development to the scientific and technological fields of material, chemical and environmental engineering, with a focus on the development, marketing, commercialization and manufacturing of advanced nanocomposites. Our last elaboration – Network Nanostructured Polymer System has been named a winner in the third annual NASA Nanotech Briefs®' Nano 50™ Awards (2007) in the Technology category.

Development projects currently underway in our center include the following:

- Nanostructured composites based on Interpenetrated Polymer Network, including nonisocyanate polyurethanes;
- Epoxy-rubber composites with nanoheterogenic structure;
- Nanocomposites based on hybrid organo-silicate matrix;
- Polymer nanocomposites with very low permeability and high resistance to aggressive environments;
- Polymer matrix nanocomposites and nanomembranes produced by SDP method;
- Biodegradable materials based on Nanocellulose.