



NANOTECH Portfolio 2011



NanoTech is the first company in Egypt and Arab world which fabricates different nanomaterials designs according to the customer request.

NanoTech is proud of being a newly born member of BAHGAT group, cooperating with well established and experience business leaders and highly qualified researchers and engineers in the field of nanotechnology.

We commit ourselves to tailor nanomaterials to be green from the beginning for more innovation.

NanoTech not only provides nanomaterials but also provides recent technologies and solutions to meet a variety of needs of both industries and scientific research communities, including universities, institutes, research centers, medical laboratories, etc...

Our key strength based on the world-class Nanotechnology which has multiple potential applications in all scientific and industrial fields.

#### Our Vision:

Achieving Excellence in Our Society through NANOTECHNOLOGY Based Economy

### Our Mission:

- We are aiming to lead in the field of nanotechnology to improve the quality of life.
  - We are looking forward bringing together Nanotechnology professionals and practitioners from the academia, industry and government to share knowledge and experience aiding economic growth.
- We are committed to deliver flexible and high quality integrated solutions through our R&D and a wide range of nanomaterials designed to fit our client's business requirement.

### We have obligations towards:

- OUR Society "Raise public awareness"
- Yong researchers "Capacity building and get introduced to Nanotechnology field"
- Industry "Nanotechnology based economy"
- Stakeholders "Enhance the quality of products"
- OUR Employees "Give them friendly working environment and better lifestyle"

#### R&D projects:

- Water Desalination
- Renewable and Green Energy (Solar Cells)
- Biomedical Imaging

#### We can offer:

- Scientific and technical consultation
- Specialized training in Nanotechnology through series of seminars, workshops, practical training..etc.
- Designing and fabrication of nanomaterials according customers needs for different applications.
- Characterize your nanomaterials using Transmission Electron Microscopy (TEM)



# Biomedical Applications

NanoTech will address the state of the art in nanotechnologies and nanomedicine and their ongoing applications focused on addressing the use of nanomaterials in cancer diagnosis and treatment.

NanoTech will cover also all aspect of using nanomaterials as drug carrier, gen delivery, biomarkers, cosmetics, ...etc.

Nanotechnology for imaging, detection and therapy

Nanotechnology for antibacterial, antifungal and antiviral activity



## Solar Cells

Developing photo electrochemical solar cells using naturally available dyes.

Design and fabrication of photovoltaic devices with improved efficiencies, based on quantum dots prepared by colloidal methods.

Enhancing the photon-to-current conversion efficiency by in-cooperating metal nanoparticles in Plasmonic Solar Cells.

Application of Graphene as the new material for transparent electrodes instead of conventional ITO.

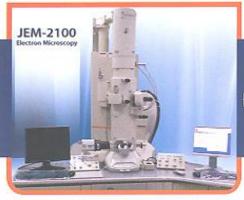
Optimization of metallic ink prepared from metal nanoparticles for back electrodes and connections in solar panels.



## Water Desalination

NanoTech developed new methodology which combines solar desalination and nanotechnology in its laboratory.

This methodology based on producing low cost nanocomposite to be used for water desalination. These new nanomaterials absorb light so strongly and convert it efficiently into heat energy



# **Electron Microscope**

NanoTech has the latest update from JEOL, The High Resolution Transmission Electron Microscope (HRTEM) JEM-2100.

This great facility is not just as a part of our system for quality assurance of nanomaterials production, but it services also the industrial and Scientific community for inspecting and characterizing nanomaterials involved in industry and scientific research.

Operating at 200 kV and equipped with a Gatan's high resolution CCD camera, our equipment can go deep inside your material till the atomic scale with spatial resolution reaching 0.14 nm.



## **Training & Courses**

 NanoTech will offer courses to introduce and train young scientists, researchers, engineers and students to nanotechnology.

### Available Packages

- Introduction to Nanotechnology
- Nanomedicine & Nanotechnology for Biomedical Applications
- Nanotechnology for Engineering
- Nanotechnology for Revolutionizing Agriculture and Food industries



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