



**Category:** Renewable energy.

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## Company profile

Nanergy Systems develops proprietary disruptive and differentiated photovoltaic cell technology, giving rise to a new generation of highly efficient solar cells with compelling economic advantages over existing technologies.

To date, the development of a prototype cell - including unique methods to manufacture nanowire arrays with multi-shell structures of chemically modified compositions - is close to completion, where the top conductive layer being the remaining technological challenge. This prototype will demonstrate the potential for high efficiency and serve as the basis for the engineering effort and economic studies still ahead of us.

**Year of establishment:** 2007

**No. of employees:** 8

## Background of the company

Established in 2007, Nanergy is led by a strong and experienced team. Its scientific leader - Prof. Fernando Patolsky, a Chemistry professor at the Tel Aviv University, is a well-known researcher and one of the world leaders in applying nano technology to practical problems.

The Nanergy management team also includes the CEO - Dr. Ricardo Osiroff, having extensive experience in leading high tech companies from inception to the market.

## Technologies & product(s)

### General description:

Nanergy's enabling technology is based on the unique combination of three dimensional nanostructures and chemically controlled material compositions. A high density "forest" of radially graded nanowires is built on a silicon surface to create a highly energy absorbent surface. Such structure provides superior efficiency due to: high surface area, light entrapment within the 3D structure, and higher absorbance of the light spectrum by the multi-shell structures.

Nanergy's value proposition is based on higher efficiency, while keeping manufacturing costs down. The improved energy output per panel will lower capital cost per kWh, lower installation costs, and lower infrastructure requirements.

### Function of the product(s):

Photovoltaic solar cells.

## Objectives / Target companies

Nanergy will complete a first technology demonstrator within 6 months from investment, optimize industrially scalable manufacturing processes and produce a prototype within 12 months. Following investments will be used for long term reliability testing, mass production readiness and strategic alliances. The company seeks funding to complete process development and validate a first prototype.