

Nanotechnology at GE Global Research

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The term "nanotechnology" has quickly become the latest and greatest buzzword in industry and has taken on a lot of different meanings. At GE, nanotechnology is defined as the "ultimate material science." We see huge potential in leveraging the novel material properties found at the nanometer scale to create completely new material performance levels for future GE products.

When scientists study materials at the nanometer scale, they can see different material properties than they do at the macro or even the micro level. Sometimes they see enhanced mechanical, electrical, thermal or structural properties that would enhance our material performance and create better GE products. The entire focus of our nanotechnology program is to identify those novel properties at the nano scale and develop methods to build materials from the nano scale up to the macro world for truly amazing performance.

While the field of nanotechnology has existed for about 10 years in academia, GE's Nanotechnology Advanced Technology Program is only three years old. But we have already developed a strong, multidisciplinary team of 50 full-time scientists working to develop the next generation of super materials that will allow our jet engines to fly farther on less fuel, or enable faster electronic devices, or maybe even diagnose disease before symptoms even exist.

Major GE Nanotechnology Research Initiatives:

- Nanotubes & Nanorods
- Nanostructured Metal Alloys
 - Nano Ceramics
 - Nanoparticles
- Hybrid Materials