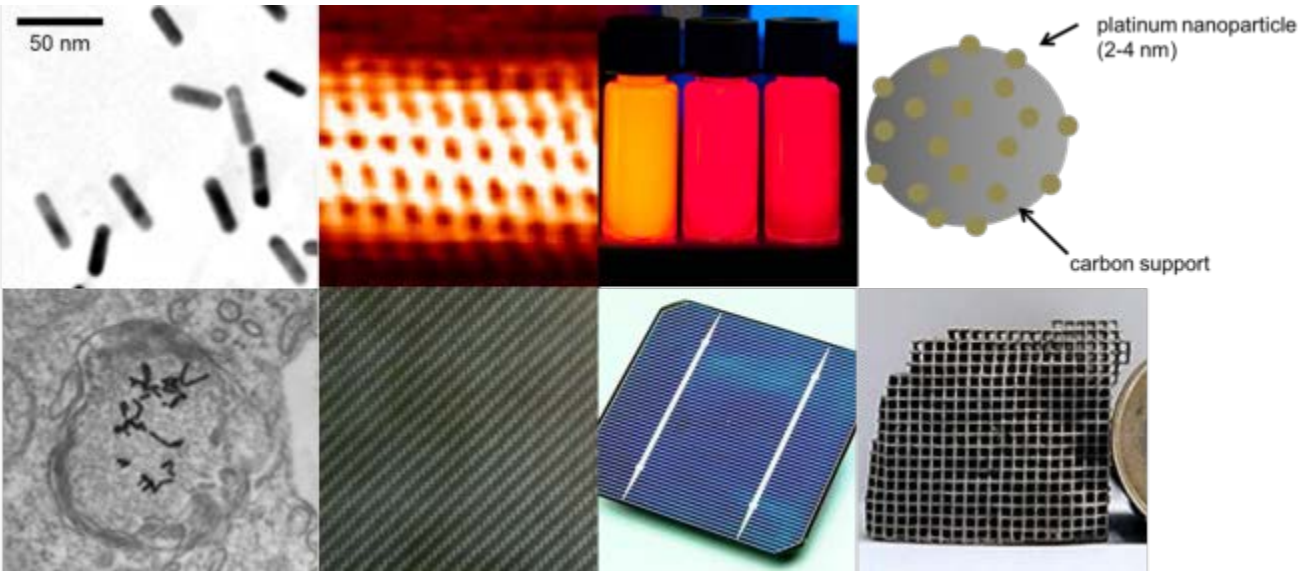


NANO CONTAMINANTS

More than a year ago on this site, I talked to you about how nanoparticles were already all around us, and have been for most of human history. That day, I was hoping to show you that while nanotechnology may sound cool and cutting edge (*It is!*), nanoparticles themselves aren't necessarily new, and that nanotechnology is not inherently hazardous or mysterious. Nanotechnology is not the grey goo it has been portrayed to be in science fiction.

Like all new technologies, though, nanotechnology will introduce both new advantages (**applications**) and new hazards (**implications**) for human society and the planet. You may already know that the unique properties of nanomaterials give rise to many amazing potential applications: turning light into a weapon against cancer, changing how we generate or store energy, speeding up chemical reactions, or allowing us to make thin sheets of plastic that are stronger than steel. But every time a new technology comes along, we have to consider how we can use the technology responsibly for society's benefit while minimizing the hazards that the new technology poses. Nanotechnology is no different. In this series of blog posts, we are going to talk about the flipside of nanotechnology's amazing applications; we are going to look at how man-made nanoparticles may unintentionally enter the environment, and look at some of the risks to human and environmental health these fantastic materials may pose.



Nanoparticles do amazing things. Top row (L-R): gold nanorods, carbon nanotubes, solutions of quantum dots, and catalytic platinum nanoparticles supported on carbon (diagram only). Bottom row (L-R): The amazing applications of nanoparticles. Gold nanorods fight cancer, carbon fiber-polymer composites for lightweight (yet super-strong) materials, solar cells, and supported catalysts from a catalytic converter. Image

sources: 1, 2,3, 4.

Source : <http://sustainable-nano.com/2014/05/13/nano-contaminants-how-nanoparticles-get-into-the-environment/>