

# Nanotechnology: newest technological wonder

[Technology](#)



**ASSIGN  
BUSTER**

Current researches are optimistic on the potentials of nanotechnology as the latest technological wonders with both environmental soundness and promise for health applications. Its advent has created promising application in various areas of human endeavors. It has made impression in the areas of novel foods, medical devices, chemical coatings, personal health testing kits, sensors for security systems, water purification units for manned space craft, displays for hand-held computer games, and high-resolution cinema screens (European Commission 2008).

Recent discoveries point to the application of these minute biological machines in health and genetics. Seferos, D. S., Giljohann, D. A., Hill, H. D., Prigodich, A. E. and Mirkin, C. A. (2007) use nano-flares in their research to study the structures of RNA in living cells. The nano-flares, made of oligonucleotide-functionalized nanoparticle conjugates, are designed to provide an intracellular fluorescence signal that correlates with the relative amount of a specific intracellular RNA (Seferos et al. 2007).

Nano-flares would become the newest class of intracellular probe and can make possible applications as cellular transfection, enzymatic protection, RNA detection and quantification, cell sorting, gene profiling, and real-time drug validation studies, and as gene regulation agents. This particular technology application is an illustration of how versatile the nanotechnology is. The relative advantage is that it penetrates into areas where conventional technologies cannot.

While we agree that you only have to spend millions marketing something if its worth is in doubt, we see the promise of nanotechnology as

revolutionizing. Investment in these area maybe huge initially but as the advantage of its effects is felt, more industries would be expected to adopt the technology and more people would benefit from it.

## References

European Commission. (2008). Nanotechnology application areas. Retrieved February 15, 2008

Industrial Technology Research Institute. (2008, January 18). Application of nanotechnology in traditional industry. Retrieved February 15, 2008

Meadows, D. (1999, August 26). Seven-Plus Wonders of Sustainability. Retrieved February 15, 2008, from <http://www.pcdf.org/meadows/7wonders.html>

Seferos, D. S., Giljohann, D. A., Hill, H. D., Prigodich, A. E. and. Mirkin, C. A. (2007). Nano-Flares: Probes for Transfection and mRNA Detection in Living Cells. *Journal of American Chemical Society*, 129. 50, 15477-15479. Retrieved February 15, 2008, from <http://pubs.acs.org/cgi-bin/sample.cgi/jacsat/2007/129/i50/pdf/ja0776529.pdf>