

Breaking the Education Cycle with Nanotechnology



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Recruitment of under-represented students into research programs and preparation for advanced careers in chemistry

Approach

- Enrich education with demonstrations and lectures
- Counsel students in chemistry careers
- Expose to Research I Institutions
- Recruit and mentor in research projects
- Guide through applications and choice of graduate schools

Length scales affect optical, physical properties



- Relevant topic in modern research
- In need of work force

Metallic nanoparticles

Color changes with size and shape

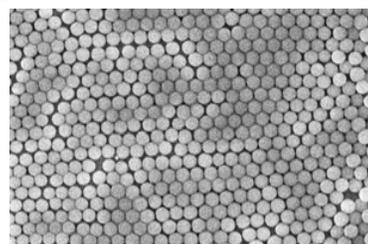


Materials Today, Feb. 2004



Stained glass - ancient nanotechnology

Increased surface area - Self assembly



Silica nanoparticles

Nanostructured superhydrophobic surfaces

Water droplet



Lotus leaf



