

MIT-Stanford-UC Berkeley Nanotechnology Forum

NanoMaterials: How Will Nanotechnology Affect the Future of Materials?

**Dr. Frederick Lam
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Stanford, California**

**MolecularDiamond Technologies
ChevronTexaco Technology Ventures**

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Civilizations are Measured by Their Materials

- Stone Age
- Copper Discovered ~8000 B.C.
- Bronze Age ~3500 B.C.
- Iron Age ~1500 B.C. to ~1000 A.D.
- Explosion of new materials in 19th & 20th centuries
 - Metal Alloys, Plastics, Silicon IT Age

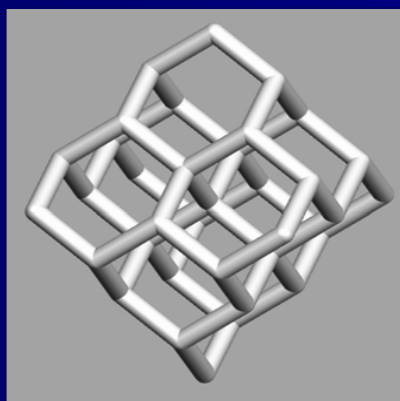
WHAT ABOUT OUR 21st CENTURY MATERIALS?

New Materials Based on Nanotechnology

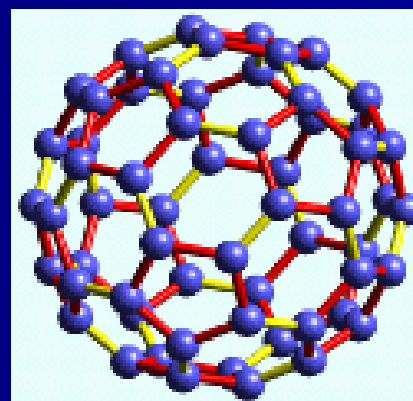
Quantum Dots



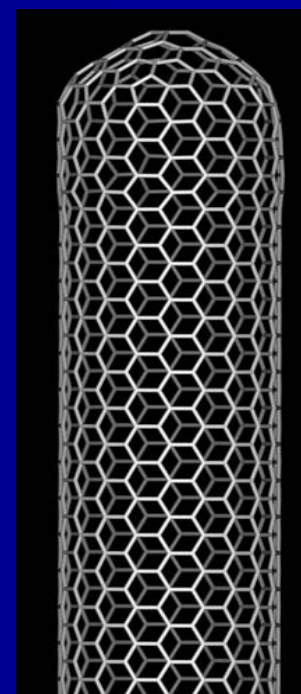
Diamondoids



Buckminsterfullerenes



Carbon Nanotubes



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NanoMaterials Will Enable Development of New Applications Across Multiple Industries

| Energy & Trans- portation | Bio- Medical & Pharma | Electronics & IT | Engineered Materials | Sensors | Consumer Products |
|--|--|-------------------------------------|---------------------------------|----------------|------------------------------|
| New NanoMaterials | | | | | |

Tonight's Speakers/Panelists

Professor Alex Zettl

Department of Physics, UC Berkeley

Professor Jack Howard

Department of Chemical Engineering, MIT
Chairman and Founder, Nano-C

Dr. David Soane

CSO and Founder NanoTex

Dr. Mark Ellsworth

Director of R&D, Nanotechnology, Tyco Electronics Inc.

(Presentations followed by Q&A Panel)

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