

***BME 695L Engineering Nanomedical Systems
September 18, 2007
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Lecture 10: Nanomaterials for core design

- I. Introduction
 - A. core building blocks
 - B. functional cores
 - C. functionalizing the core surface

- II. Ferric oxide cores
 - A. paramagnetic cores
 - B. superparamagnetic cores
 - C. ferric nanorods
 - D. advantages and disadvantages

- III. C60 and carbon nanotubes
 - A. size and structure of C60
 - B. elongation of C60 into carbon nanotubes
 - C. advantages and disadvantages

- IV. Gold cores
 - A. gold nanoparticles
 - B. gold nanorods
 - C. other shapes (e.g. "stars")
 - D. gold nanoshells
 - E. advantages and disadvantages

- V. Silica cores
 - A. silica nanoparticles
 - B. advantages and disadvantages

- VI. Hybrid materials
 - A. gold-ferric oxide nanoparticles and nanorods
 - B. cobalt-Platinum magnetic nanoparticles

Lecture 10 References

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