

Nanostructured Materials Prepared by ALD

Surface Science and Surface Functionalization

- Chemistry of atomic layer deposition (ALD)
- Surface functionalization by ALD

Nanostructured Materials for Biomedical Applications

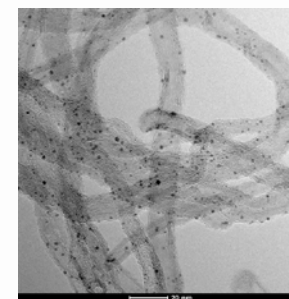
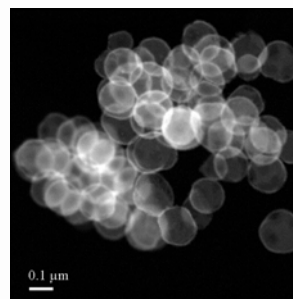
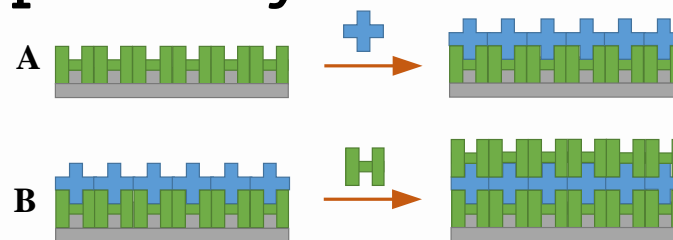
- Drug delivery
- Imaging

Nanostructured Materials for Energy Storage

- Lithium ion batteries

Nanostructured Materials for Environmental Remediation

- Water treatment



High quality ultra-thin films or highly dispersed metal nanoparticles can be prepared by ALD

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- Department of Energy, National Science Foundation, ACS-Petroleum Research Fund, and Industries

Keywords

- # Atomic Layer Deposition (ALD), #Molecular Layer Deposition (MLD), #Thin Film, #Coating, #Nanodiamond, #Drug Delivery, #Imaging, #Water Treatment

Recognitions

- 2016 Dean's Scholar, Missouri S&T
- 2015 Faculty Research Award, Missouri S&T
- 2015 ACS-PRF DNI Award

Potential Collaboration fields

- Drug delivery, imaging