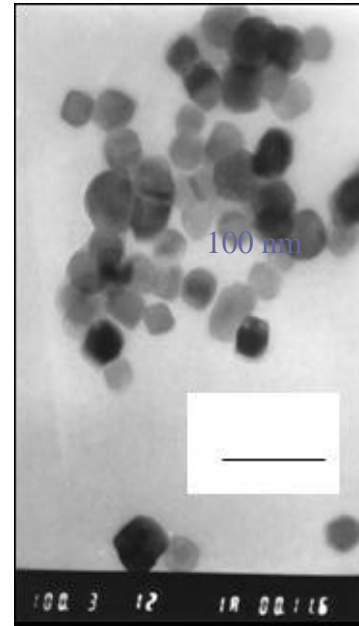
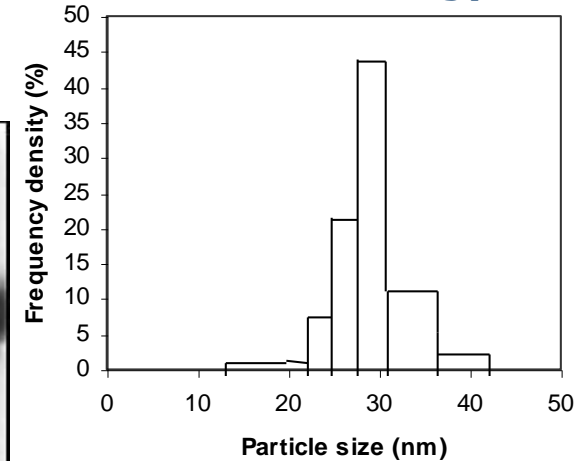


# NPCC Series (Nano-Precipitated CaCO<sub>3</sub>)

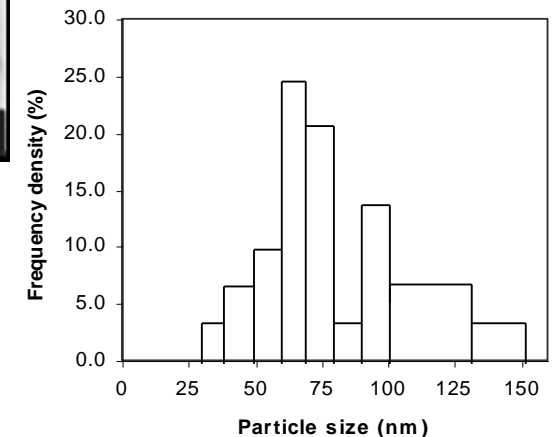
- Cubic-shaped
- Average particle size of 40 nm
- Narrow particle size distribution
- BET surface area of >40 m<sup>2</sup>/g
- No chemical inhibitor used (no contamination)
- Particle morphology can be controlled to give cubic, spindle, rod or flake shape
- Annual production output of 10,000tons for cubic-shaped NPCC



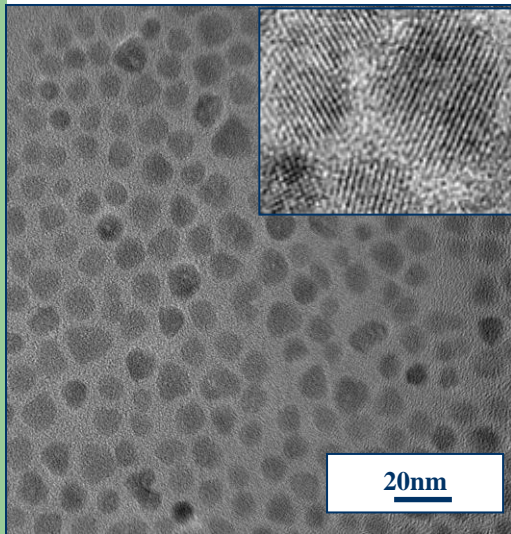
## HGCP Technology



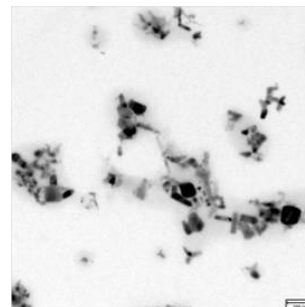
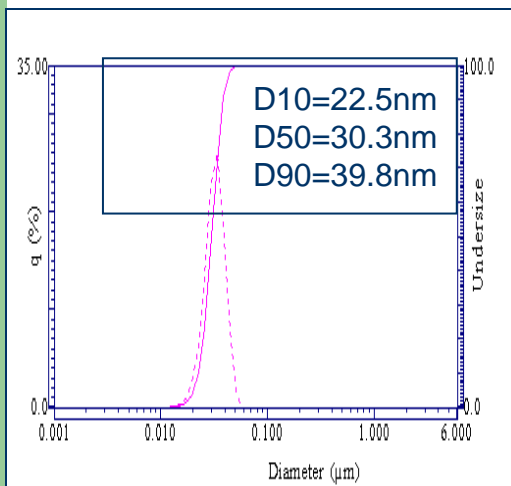
## Japanese Product



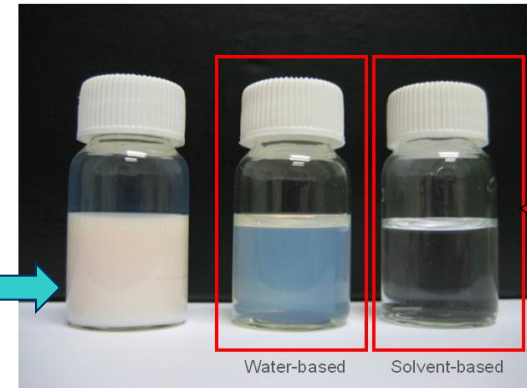
# Nano-D™ Zinc Oxide Dispersion



- Zinc Oxide nano-particles have natural property of scavenging the free radicals generated from the breakdown of hydrocarbon chains of lubricants after prolong use
- Zinc Oxide nano-particles are amphoteric which neutralize the acid generated by hydrocarbon chains
- Zinc Oxide nano-particles are stable in original formulation of the lubricants



Conventional  
nano-sized  
Zinc Oxide  
dispersion  
40wt%



NanoD™  
Zinc Oxide  
dispersion  
40wt%

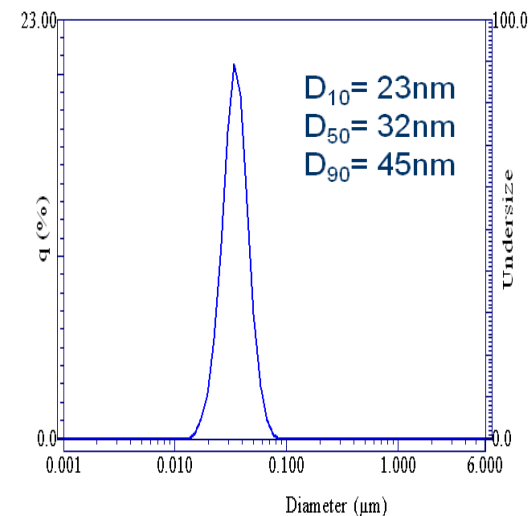
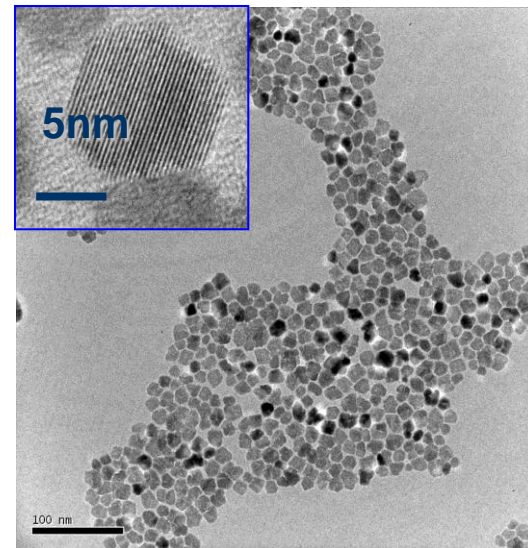
Water-based

Solvent-based

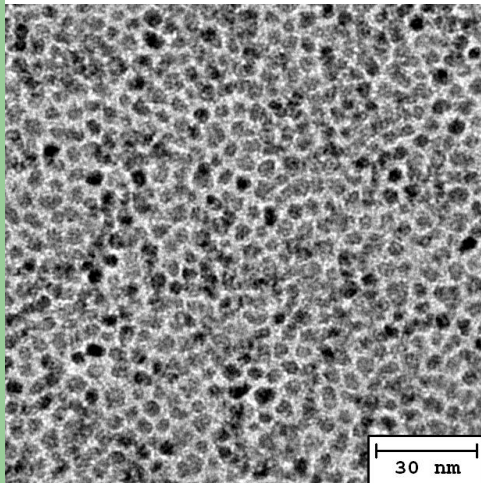
# Nano-D<sup>TM</sup> Ceria Dispersion

Anti-abrasion property:

- Nano-particles produce rolling effect on the surface under extreme pressure
- Nano-particles formed an anti-abrasion protection layer on the metal part
- During the friction, nano-particles entered into crystal structure of metal part



# Nano-D™ ATO Dispersion



- ATO nanoparticles shield energy in infrared region, while maintaining excellent transparency in the visible region.
- ATO nanoparticles provide antistatic properties without impacting the optical or other physical properties of surface coating
- ATO nanoparticles are conductive and less brittle; and can be a low cost substitute for ITO

