

SYNTHESIS, CHARACTERIZATION AND APPLICATIONS OF NANOPARTICLES

Super-stable, low-toxicity and highly bio-active metal and metal oxide nanoparticles are synthesized through a simple and eco-friendly route. The size and shape of the nanoparticles is fully controlled and can be adjusted to meet the needs of a wide spectrum of applications.

Application Field

Synthesis & Fabrication
Nanoparticles and Inks
Nanomaterials & Nanobiomaterials
Nanocoatings & Antibacterial surfaces

Services Offered to Third Parties in the following fields

- Nano-Chemicals, Inks and Nanoparticles
- Nano-Energy, Renewables & Environment
 - Nanomaterials & Nanobiomaterials
- Metrology, Nano-Instruments & Characterization Systems
 - Nanotechnology & Food, Smart Food packaging
 - Synthesis & Fabrication Equipment
 - NanoConstruction & Buildings

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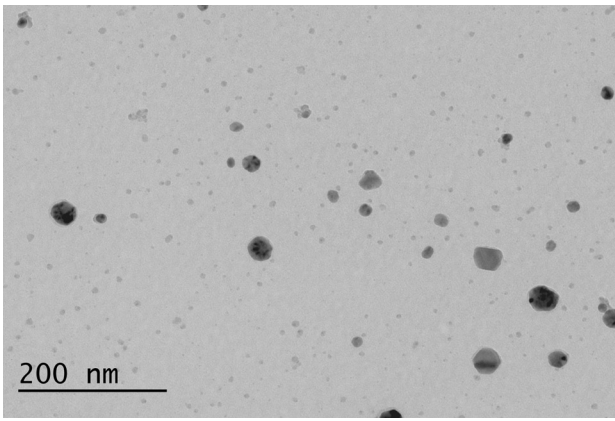


Figure 1
Characteristic TEM image of the AgNPs

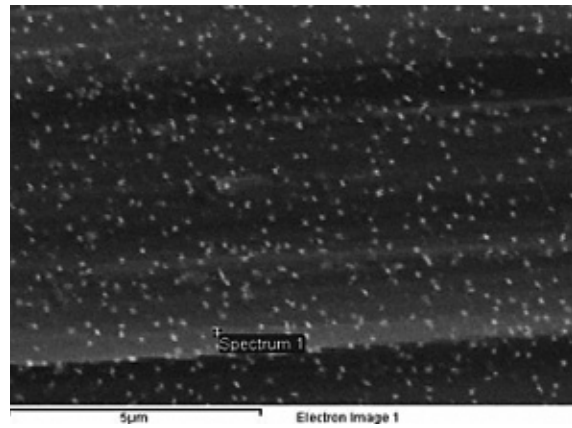


Figure 2
SEM image of the dispersed AgNPs, implemented in the organic coating on the AA6061 T6.



Figure 3
Salt spray chamber for the corrosion testing of the samples.

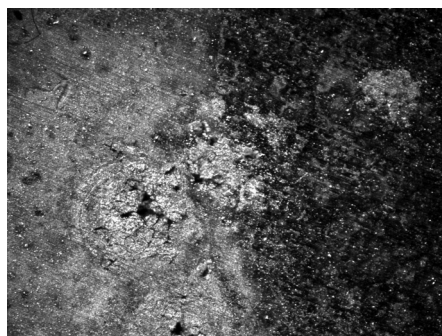


Figure 4
Images of the corroded samples (after 60h, 3.5%wt. NaCl solution at 35°C): (a) uncoated, (b) organic coating and (c) organic coating with AgNPs.

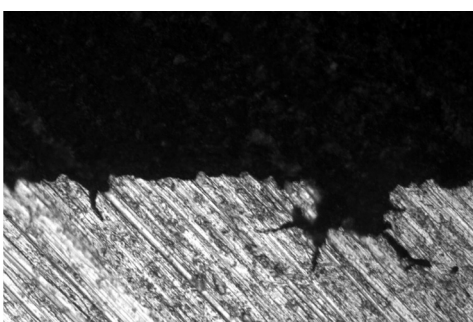


Figure 5
Cross section of the corroded uncoated sample, showing the developed pits.

