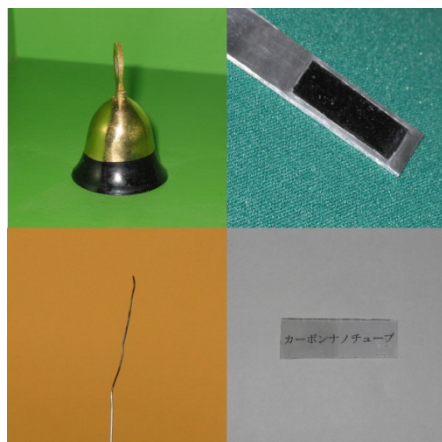


# Chemical Applications of Carbon Nanotubes

Professor Masahito Sano



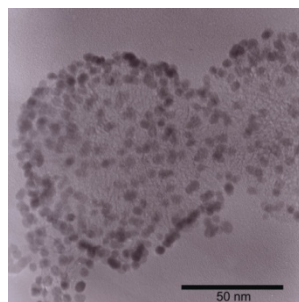
Polymer composites



Electrodeposition



Dispersed carbon nanotubes



Pt supports

## Content:

Carbon nanotubes (CNTs) have excellent electrical, mechanical, and thermal properties that can be used for various fields. For instance, polymer mixed with a small amount of CNTs is expected to give a transparent conductive film, a mechanically tough polymer stronger than carbon fiber enforced plastic, and heat conducting films better than metals. Yet, difficulties in dispersing CNTs in common solvents or polymers, poor adhesion to other material surfaces, tendency to aggregate randomly, and low chemical reactivity pose many problems in CNT applications. In addition, surface properties of CNTs depend strongly on a particular CNT sample. A suitable working condition for one CNT batch may not apply to other batches.

Based on long experience and working knowledge, we offer the best methods to help YOUR CNTs to your interests like

- dispersion technique and characterization
- thin film technology
- enhancement of chemical reactivity
- improvement of polymer-CNT composite properties

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Research Interest : Polymer physical chemistry

Carbon nanotubes

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