



Waste Plastic to Carbon Nanotubes (CNTs)

In Singapore alone, more than 0.8 million tons of plastic waste are generated annually. Waste plastics are a threat to people and the environment as they are extremely difficult to break down naturally. A significant portion of this waste is not recycled and ends up in the incineration plant, resulting as toxic gas emission. Although recycling is an alternative, it yields low economic returns due to resource-intensive segregation processes.

EWTCOI researchers have developed an innovative process to convert plastic waste into high-value carbon materials that can be used across a wide range of applications. Using a scalable and proprietary pyrolytic process, we have designed and custom-built a processing system. This system converts plastic into high-purity carbon nanotubes (**CNTs**) that can be used for multiple industrial applications. Worldwide market demand for **CNT** is growing rapidly.

EWTCOI can license this technology to help you build a successful waste recycling business.

Key Features & Benefits

- Low cost feedstock (plastic waste)
- Low energy requirements and production costs
- High-purity **CNTs** with excellent tensile strength and conductivity properties
- High-quality **CNTs** that make recycling of plastic economically attractive

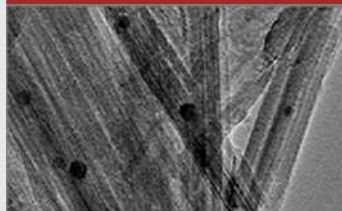
Applications

- Converting plastic waste into high value CNTs
- Conversion of mixed plastics, rubber, used cooking oils and oil sludge to CNTs

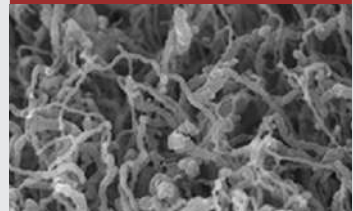
CNT Production Set-up



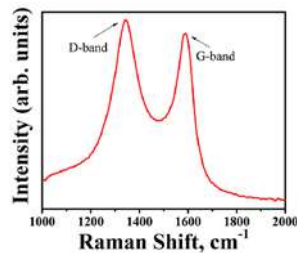
TEM Image of CNT



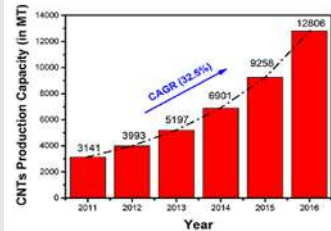
SEM Image of CNT



Raman Analysis



CNTs Global Annual Production



Applications of Carbon Nanotubes (CNTs)

