The Growth of Potential Applications of Carbon Nanotubes in Today’s Technology

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Carbon nanotubes (CNTS) are hexagonal ring structures wrapped in a ring.
Carbon nanotubes are layers of graphite, rolled into diameter 10,000x smaller than hair. They are allotropes of carbon held by the strongest bonds in chemistry, sp2 bonds.
CNT’s too small to physically roll up, but if carbon atoms are heated, they naturally form

View of the rotary tube oven used for the CVD, large-scale synthesis of carbon nanotubes. It allows 1.5 kg/day production of high quality tubes, suitable for applications in composites.

Zoom on the flow of CNTs in a 2 inch quartz tube at the exit of the active zone of the furnace.
Carbon nanotubes are over 100x stronger than steel but 6x lighter.
Carbon nanotubes have been looked into in order to make durable technology.

The specific strength of:

- carbon nanotubes: 48,000 kN·m/kg
- high-carbon steel: 154 kN·/kg

*NASA 2002*
Scientists have invested in incorporating CNTs into armor, 17 stronger than kevlar.
CNTs have been incorporated into solar cells, converts 75% of absorption to energy

Current solar panels are made of silicon, only convert up to 30% of absorption
CNTs have many applications in the field of medicine from detections to treatments.
Endless possibilities across any science field

Cell Therapy

Gecko Tape

Biosensors

[Forbes]

[The Guardian]

[Islamization Watch]
The future of carbon nanotubes and nanotechnology in future.
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