

CARBON NANOTUBE ASSEMBLY AND MANUFACTURING METHOD
THEREOF

ABSTRACT

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A method for manufacturing a carbon nanotube assembly including the steps of: forming metallic fine particles, having a predetermined particle diameter, on a substrate; heating the metallic fine particles to a predetermined temperature of 300°C to 400°C in a reducing atmosphere to cause reduction at surfaces thereof; heating the metallic fine particles to a predetermined reaction temperature in a reactor; and introducing an organic compound vapor into the reactor to grow carbon nanotubes on the metallic fine particles in such a way that a time during which the temperature of the metallic fine particles exceeds 450°C is 600 seconds or fewer for the period of time before the growth of the carbon nanotubes is started after the heating of the metallic fine particles is started.

Figure 1

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