

Abstract Submitted
for the MAR07 Meeting of
The American Physical Society

Metallic carbon nanotubes destruction using Laser Irradiation HISASHI KAJIURA, HOJIN HUANG, RYUICHIRO MARUYAMA, KOJI KADONO, KAZUHIRO NODA, Sony Corporation — We demonstrated that, using laser irradiation in air, metallic single-walled carbon nanotubes (SWNTs) in carbon nanotube thin film can be preferentially destroyed to their semiconducting counterparts if SWNTs are not heavily bundled. Although all metallic SWNTs were not destroyed using the lasers with an excitation wavelength of 514.5nm and 632.8nm due to a large distribution of SWNTs diameter, it is clear that if SWNTs with a small distribution of diameter can be produced, it should be possible to destroy all of the metallic SWNTs using one or two lasers. [Huang et al. J.Phys.Chem.B, 2006, 110, 7316-20. and 4686-90.]

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Date submitted: 09 Nov 2006

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