

Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

Carbon nanotubes synthesized by pulsed laser deposition for light harvesting devices JIN CHU, University of Puerto Rico, BOQIAN YANG, University of Massachusetts Amherst, PETER FENG, University of Puerto Rico — A large-area vertically aligned carbon nanotubes (CNTs) have been fabricated by catalyst-assisted pulsed laser deposition techniques on indium tin oxide (ITO) glass substrates. The CNTs have a uniform shape and length, aligned vertically on the surface of the ITO substrates and the average diameter is about 8 nm. The long-term field emission current stability of the CNTs has also been investigated. No obvious current density decay was observed after 15 days continuous experiments, indicating the super stability of the sample. A highly stable, cheap and nontoxic material which can be used as electrodes in dye-sensitized solar cells was obtained.

Jin Chu
University of Puerto Rico

Date submitted: 23 Dec 2011

Electronic form version 1.4