Carbon Nanotechnologies Inc. (CNI) Announces the Issue of a U.S. Patent for Composites Containing Single-Wall Carbon Nanotubes

- Provides coverage for composites, fibers and other materials containing derivitized single-wall carbon nanotubes which are substantially aligned
- Complements recently issued or allowed patent coverage relative to derivatization and purification of carbon nanotubes

Houston, TX, USA – October 5, 2004 - Carbon Nanotechnologies, Inc (CNI) announced today the issue of U.S. Patent 6,790,425 B1 for both pure and composite materials containing derivitized single-wall carbon nanotubes in substantial alignment with one another. This patent paves the way for commercial products with superior performance characteristics, such as plastics with electrical conductivity, improved fibers for bullet-proof vests, plastic parts that are stronger and longer lasting, and flat panel TVs and displays which are brighter, longer lasting, and consume less energy. This technology is part of the intellectual property developed by Nobel-Prize winning scientist Dr. Richard Smalley and licensed exclusively to CNI by Rice University in 2001.

“These compositions, along with CNI’s patent coverage related to purifying and derivitizing single-wall carbon nanotubes, provide CNI with a fundamental position in composites, fibers and other commercially useful materials with a wide variety of uses,” said Dr. Smalley, Chairman of CNI and University Professor at Rice University.

“Single-wall and other small diameter carbon nanotubes offer great potential in applications ranging from electrically-conductive plastics to fuel cells and flat panel displays. CNI’s industry-leading intellectual property portfolio, including this latest patent, broadly covers nanotube production, enabling technology and end-use applications, and will likely underpin almost all commercial products benefiting from these remarkable new materials. CNI is currently scaling up production of multiple products designed to meet the requirements of specific end uses,” said Bob Gower, President and CEO of CNI.

Small-diameter carbon nanotubes are an example of a nanotechnology that is now reaching the commercial arena. These nanostructures comprise large molecules of carbon, cylindrical in form, and are about 1-3 nanometers (billionths of a meter) in diameter and hundreds to thousands of nanometers long. As individual molecules, single-wall carbon nanotubes have a tensile strength that is 100 times that of high-strength steel and about one-sixth the density of steel. They conduct electricity and heat extremely well, and many believe that they represent the next revolution in polymer technology.

Alignment is required in many nanotube composite applications such as a new breed of super-strong composite fibers that are a blend of single-wall carbon nanotubes and other high-strength polymer materials. Alignment is also a key requirement for creating electrically conductive materials at very low, and therefore highly economic, loadings of nanotubes. Given the natural self assembly of small diameter nanotubes into “ropes” of

aligned tubes and the derivatization inherent in most purification processes this patent supports a broad range of materials that can bring the revolutionary properties of nanotubes into commercial products.

The hundreds of end-use products under development include electrically-conductive plastic composites for use in semiconductor equipment and automotive parts; tough, lightweight, and high strength composites for satellite parts and sporting goods; large, reasonably-priced flat-panel TV screens; fuel cell components including electrodes; and sensors, actuators, and other performance critical components.

CNI has more 100 patents and patent applications with a total of about 5000 claims in various stages of prosecution. Twenty-six patents with a total of about 900 claims have been issued or allowed. The portfolio of 100 patents and applications includes about 650 composition of matter claims, more than 40 of which have been issued or allowed thus far.

CNI has several pilot plants to produce single-wall and other small-diameter carbon nanotubes in operation at its location in west Houston.

The company currently has more than 450 customers worldwide and has an exclusive relationship with Sumitomo Corporation for marketing and distribution of CNI products in Japan.

CNI Contact: David Karohl, Director of Business Development, +1 281-492-5730, karohl@cnanotech.com.

Sumitomo Contact: Nobuo Aoki, Senior Business Executive, +81 (3) 51664535, nobuo.aoki@em.sumitomocorp.co.jp.