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Electrical Characterization of Carbon Nanotube Bundles Synthesized from Chemical Vapor Deposition of Ferrocene C. WOLFE, R. SHAH, X. ZHANG, Department of Physics, Southern Illinois University Carbondale, Illinois, 62901, X. AN, S. KAR, Department of Physics, Applied Physics and Astronomy, Rensselear Polytechnic Institute, Troy, NY 12180, S. TALAPATRA, Department of Physics, Southern Illinois University Carbondale, Illinois, 62901 — We employed a chemical vapor deposition technique, which used ferrocene both as the catalyst as well as the carbon source, to grow films of carbon nanotubes (CNT). The CNT films obtained using this procedure were characterized using Raman Spectroscopy and Transmission Electron Microscopy which indicated the presence of thin diameter carbon nanotubes as well as single walled CNT ropes. Electrical transport measurements performed on long ropes of CNTs extracted from these bulk films will be presented and will be discussed in the framework of transport theories of quasi-one dimensional systems.

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