

FORM 9B - PROJECT SUMMARY

PROPOSAL NUMBER 00-1 28.01-9003 (Chron: 000998)

PROJECT TITLE

Self-Assembled Thin Films of Carbon Nanotubes

TECHNICAL ABSTRACT (LIMIT 200 WORDS)

Carbon nanotubes were discovered in 1991 by S. Iijima. These are large macromolecules that are unique for their size, shape, and remarkable physical properties. In particular, the thermal and electrical conductivity of nanotubes promises improvements in next generation electronic and computer systems, in addition to potential applications in multifunctional structures. Luna Innovations proposes to demonstrate the construction of a new class of thin-film polymeric-nanotube composite materials using the recently developed self-assembly process. The resulting thin films will form a nanostructured composite which not only incorporates the electrical, thermal and mechanical properties of the nanotubes, but in addition may be used to produce micropatterned structures automatically during the deposition process.

POTENTIAL COMMERCIAL APPLICATIONS

These micropatterned nanotube composites will find application in microelectronics and microelectromechanical systems, batteries, and fuel cells.

NAME AND ADDRESS OF PRINCIPAL INVESTIGATOR (Name, Organization Name, Mail Address, City/State/Zip)

Steven Stevenson
Luna Innovations Incorporated
2851 Commerce Street
Blacksburg , VA 24060 - 6657

NAME AND ADDRESS OF OFFEROR (Firm Name, Mail Address, City/State/Zip)

Luna Innovations Incorporated

2851 Commerce Street
Blacksburg , VA 24060 - 6657
