

# Conformal Parylene Coating for Critical Semiconductor Components

**PROJECT LEADER:** Steve Neely (Vertical Solutions, Inc.)

**COLLABORATOR:** William Young (NIST)

**GOAL**

To develop a deposition process for evenly distributing a thin conformal coating of translucent parylene over non-planar surfaces.

**KEY ACCOMPLISHMENTS**

Developed processes for thin (1  $\mu\text{m}$  to 20  $\mu\text{m}$ ) conformal coating of translucent parylene.

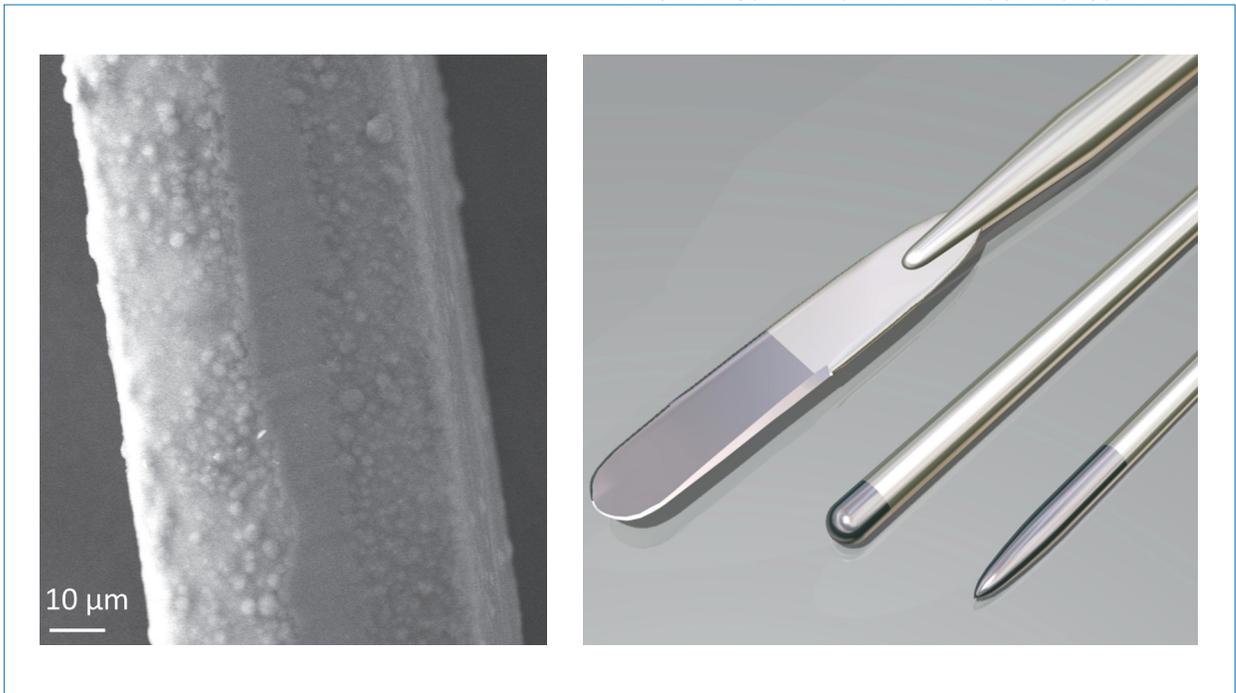
Created a new set of products built around the coating's high dielectric strength and low mechanical and thermal stress.

Transitioned the process in-house; opened a new division with 12 full-time employees.

**KEY NANOFAB PROCESS**

Parylene process.

*Scanning electron micrograph of an electrical probe coated with translucent parylene and a photograph of coated medical tools.*



**REFERENCE**

<http://www.volutionsinc.com/Parylene.Coating.html>