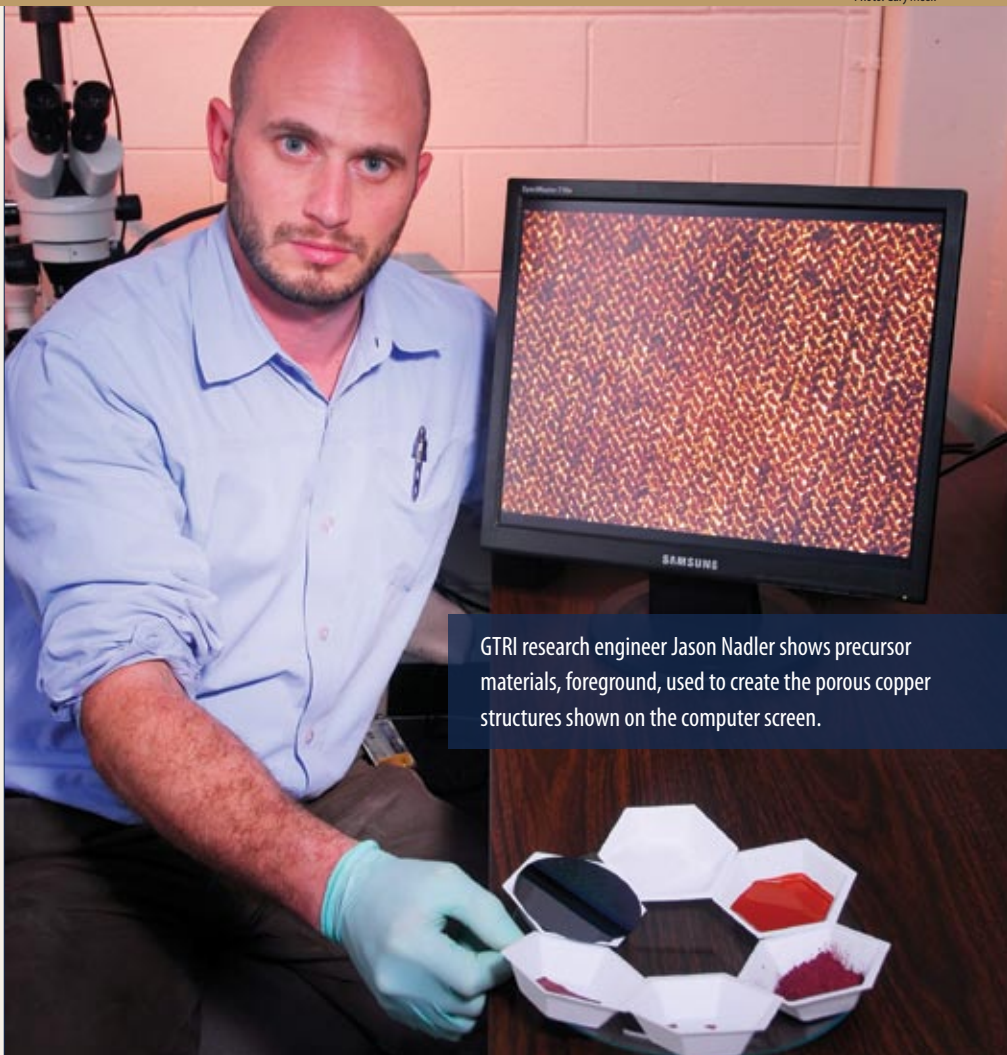


Georgia Tech Researchers are Covered in the News Media

Photo: Gary Meek

More than 150 news outlets covered Georgia Tech's development of a "microfiber nanogenerator" that scavenges mechanical energy from the environment to produce small quantities of electrical current that could power nanometer-scale devices. The foundation for the microfiber nanogenerator consists of nanowires made from zinc oxide grown onto ordinary textile fibers and alternately coated with gold. When the coated fibers rub together – moved by body motion or even the wind – they produce current through the combined piezoelectric and semiconducting properties of the zinc oxide nanowires. Among the outlets covering the research were the Associated Press, BBC, *Christian Science Monitor*, *ComputerWorld*, FOX News, MSNBC, National Public Radio, *Newsday*, *Newsweek*, *PC Magazine*, *The New York Times*, *Scientific American*, *Small Times*, *Technology Review*, *Time*, *USA Today*, *The Washington Post*, and *Wired*. A research team headed by Zhong Lin Wang in the School of Materials Science and Engineering developed the device, which was detailed in the journal *Nature*. (See the article on page 4 of this issue of *Research Horizons*).

Georgia Tech assistance to the Naval Surface Warfare Center in developing a new generation of micro-electromechanical fuzes for weapons produced coverage in *Advanced Materials and Processes*, *Aviation Week & Space Technology*, *Chemical Engineering Progress*, *Design News*, *EDN*, *Electronic Engineering Times*, *Photonics Spectra* and *Small Times*, among others. Georgia Tech Research Institute research engineer Jason Nadler developed a technique for



GTRI research engineer Jason Nadler shows precursor materials, foreground, used to create the porous copper structures shown on the computer screen.

consistently producing tiny copper structures that can be incorporated into integrated circuits. Once the circuits are created, the structures are converted to millimeter-diameter explosives.

A "sensor necklace" that can tell when patients or test subjects take a magnetically-tagged pill could improve compliance with doctor-prescribed medications and improve the accuracy of drug trials. Developed by researcher Maysam Ghovanloo in the School of Electrical and Computer Engineering, the work has received note in *Electronics Weekly*, *The Engineer*, *Photonics Spectra*, *TechJournal South*, *Technology Review*, and ZD Net. As

many as one in three adults fail to take medications as prescribed. (See the article on page 36 of this issue of *Research Horizons*).

A sensor system that continuously monitors the air around persons prone to asthma attacks could help researchers better understand the environmental causes of the breathing distress. The new system, developed by a research team headed by GTRI principal research scientist Charlene Bayer, would be worn in the pockets of a vest. The new "asthma vest" was covered by *The Engineer*, *Journal of Life Sciences*, *New Scientist*, *Popular Science*, *Technology Review*, *United Press International*, *The*

Vancouver Sun, and many other medically-related Web sites. (See the article on page 40 of this issue of *Research Horizons*).

A low-cost material for capturing carbon dioxide from the smokestacks of coal-fired power plants and other producers of the greenhouse gas received significant media attention. *Energy Daily*, *Environmental Protection*, *IEEE Spectrum*, *R&D Magazine* and *Wired* were among the outlets reporting on the work, led by Christopher Jones in the School of Chemical and Biomolecular Engineering. (See the article on page 32 of this issue of *Research Horizons*).