

Georgia Tech researchers' work is covered in the news media.

Publishing in the journal *Science*, Georgia Tech researchers reported on a prototype nanometer-scale generator that produces continuous direct-current electricity by harvesting mechanical energy from such environmental sources as ultrasonic waves, mechanical vibration or blood flow. *The New York Times*, *New Scientist*, *Electronic Engineering Times*, *Nature Nanotechnology*, *Military & Aerospace Electronics*, *Advanced Materials & Processes*, *Technology Horizons*, *The Dallas Morning News*, *Technology Review*, *The Atlanta Journal-Constitution*, *Scientific-American.com*, *LiveScience.com* and more than 40 other news outlets reported on the work, which was led by Regents' Professor Zhong Lin Wang in the School of Materials Science & Engineering. (See the article on page 20 of this issue of *Research Horizons*).

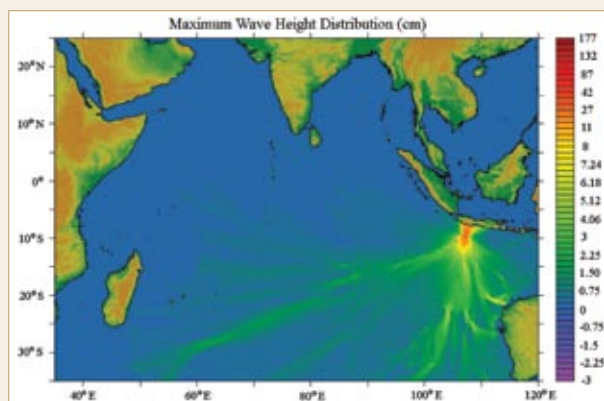
More than 80 news outlets reported on the Georgia Tech Research Institute's development of unique 3-D solar cells that capture nearly all of the light that strikes them. *BusinessWeek*, *The Boston Globe*, *Electronic Engineering Times*, *Newsday*, *InfoWorld*, *Materials-World*, *USA Today*, *The Washington Post* and *Technology Review* were among the outlets reporting on the work. Based on tiny "towers" fabricated from carbon nanotubes, the cells could boost the efficiency of photovoltaic (PV) systems while reducing their size, weight and mechanical complexity. Jud Ready of GTRI's Electro-Optical Systems Lab is the principal researcher. (See the article on page 4 of this issue of *Research Horizons*).

Producing 3-D polymer line structures as small as 65 nanometers wide became easier with Georgia Tech's development of new two-photon absorbing molecules that are sensitive to laser light at short

wavelengths, allowing researchers to create them without highly sophisticated fabrication methods. Key technical media, including *Semiconductor International*, *Solid State Technology*, *Laser Focus World* and *Electronic Engineering Times* reported on the development, which was led by Professor Joe Perry in the School of Chemistry and Biochemistry and the Center for Organic Photonics and Electronics. (See the article on page 37 of this issue of *Research Horizons*).

Chemical & Engineering News, *Chemical Processing*, *Chemistry World*, *New Scientist*, *Electronic Products* and *Technology Review* were among more than two dozen news outlets reporting on development of a new form of the industrially important metal platinum: 24-facet nanocrystals whose catalytic activity per unit area can be as much as four times higher than existing commercial platinum catalysts. The work, reported in the journal *Science*, was done by a team of researchers from Georgia Tech and Xiamen University in China. Regents' Professor Zhong Lin Wang from the School of Materials Science and Engineering was the Georgia Tech project leader. (See the article on page 34 of this issue of *Research Horizons*).

International news media, including Reuters, the Australian Broadcasting Corp., the *Sydney Morning Herald*, and ANTARA – the Indonesian National News Agency – reported on a Georgia Tech study of the July 2006 Java tsunami that killed more than 600 persons. The study, led by Hermann Fritz from the School of Civil and Environmental Engineering, found that beachgoers did not feel the earthquake that caused the tsunami and even trained lifeguards missed signs of



the approaching waves. (See the article at gtresearchnews.gatech.edu/newsrelease/java-tsunami.htm).

A patent received by the Georgia Tech Research Institute (GTRI) for a key improvement to the circuitry of military radar warning receivers attracted attention from *Defense News*, *Electronic Design*, *Machine Design*, *Military & Aerospace Electronics* and other key technical media. The improvement, developed by GTRI researchers Michael L. Willis and Michael L. McGuire with Air Force scientist Charlie W. Clark, is for a digital crystal video receiver that allows a troublesome analog process to be shifted to the digital domain. The change is expected to improve reliability and reduce cost for the radar warning receivers. (See the article at gtresearchnews.gatech.edu/newsrelease/digital-video.htm).

Regents Professor C.P. Wong was quoted in an Associated Press article on a new superhydrophobic – water-repelling – surface coating developed by the General Electric Co. Wong, a researcher in the School of Materials Science and Engineering who is pursuing water-repelling coatings for other applications, described the technical challenges involved in the research. News articles were picked up by dozens of print and online news outlets, including *BusinessWeek*, *Forbes*, *the Los Angeles Times*, *MSN Money*, *Newsday*, *the Washington Post* and *the Miami Herald*. (See the article on Wong's research at gtresearchnews.gatech.edu/newsrelease/lotus.htm).