



The American Ceramic Society
NEWS RELEASE

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Corning, GE Healthcare to receive 2010 technical achievement award from The American Ceramic Society for revolutionary glass and CT scanning products

WESTERVILLE, OH –The American Ceramic Society (ACerS) today announced that two companies, Corning Inc. and GE Healthcare, have been selected to receive the organization’s 2010 Corporate Technical Achievement Award for their landmark developments of Gorilla Glass and the Gemstone CT Scan Scintillator, respectively.

“We somewhat broke with tradition this year by picking two winners, but these are very remarkable products and companies,” says ACerS President Edwin Fuller. He says ACerS will present the awards to company representatives on Oct. 18, 2010, at the Society’s annual meeting in Houston, Texas. Researchers from each company will also present special lectures on the science and history of development of these two products on Oct. 19, 2010.

“In just a few years, Corning’s Gorilla Glass has become ubiquitous in smartphone devices,” says Fuller. “Typically, it is the outer glass surface of smartphones, providing a very strong, durable and clear surface that does not interfere with touchscreens or other functionalities in the devices.”

Technically speaking, Gorilla Glass is a special alkali alumino-silicate product that, even at half of the same thickness, is two- or three-times stronger than other types of commercially available chemically strengthened glass. Although extremely mar-resistant, even if a scratch is left, the strength of Gorilla Glass is retained. Because it has proven to be such a strong, thin and lightweight surface, TV manufacturers are also looking to use Gorilla Glass on their screens to reduce the weight of their products, which will cut shipping costs.

GE Healthcare’s Gemstone is a high-performance scintillator that has enabled the creation of a low-radiation, high-definition computed tomography (CT) scanning systems, the first major development in CT equipment in over two decades. A scintillator is a key CT system component that detects transmitted X-rays and converts the energy into a digital form. The fast and extremely sensitive Gemstone scintillator is composed of a special polycrystalline material that was discovered during a process in which GE Healthcare researchers examined more than 150,000 other candidates.

Fuller notes that X-ray exposure has been of great concern to health care professionals. “Gemstone’s sensitivity allows for the first time lower-dose CT scanning,” he says. Some radiologists report they have succeeded in decreasing the CT X-ray dose by 50 percent. The sensitivity also allows a CT system to nearly simultaneously collect data

from two different X-ray energy levels, a feat that produces detailed density information of a patient's anatomy and tissue composition.

Also, radiologists using older systems have been hampered by CT images that have lacked definition because the patient moved during the scan. The unprecedented speed of the Gemstone scintillators, however, makes it possible to collect detailed information about tissue composition, even when there is significant patient movement.

The Gemstone scintillator has been incorporated into GE Healthcare's Discovery CT750 HD scanning system.

ACerS will be holding its 112th Annual Meeting in conjunction with the Materials Science & Technology 2010 Conference and Exposition (MS&T'10), which runs Oct. 17-21 in Houston.

About ACerS

Founded in 1898, The American Ceramics Society is the professional membership organization for international ceramics and materials scientists, engineers, researchers, manufacturers, plant personnel, educators and students. Drawing members from 60 countries, ACerS serves the informational, educational and professional needs of its 6,000 members and provides them with access to periodicals and books, meetings and expositions, and technical information. ACerS also maintain an extensive materials science website (www.ceramics.org) that provides online access to its journals, publications, science and career forums and specialized technical knowledge centers.

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