Patent Issued for Advanced Detection in Medical Imaging

Business Wire

Latest patents cover nanofilm technology for noiseless, low signal amplification.

Arradiance, Inc. announced today the issuance by the United States Patent Office of two patents that cover the use of nanofilm technologies, fundamental to large area detection, that will revolutionize applications in the scientific, homeland security and medical imaging markets.

The patent for invention number 8,227,965 describes Microchannel plate (MCP) devices with tunable resistive films. The patent for invention number 8,237,129 describes polymer substrate-based MCP devices for use in fast neutron detection.

“These latest patents cover the conductive nanofilms that are the critical technology for substrate independence, enabling these noiseless, high gain detectors to achieve the very large areas required for advanced scientific, homeland security and medical imaging markets,” said Ken Stenton, CEO Arradiance Inc. “This grows our patent portfolio to 11, which further confirms the leadership position that Arradiance holds in large area detection.”

These patents cover the technology in Arradiance’s GEM-R2 and GEM-R2D2 nanofilms that functionalize bare detector substrates of any size or insulating material to enable noiseless, low signal amplification. They arrive just a few months after Arradiance was issued a system-level patent for integration of the nanofilm technology into an imaging tube.

“This new market segment, noiseless large area detection, is poised for very rapid growth. The most successful businesses will be those that leverage their intellectual property to give customers and partners the assurances they are looking for,” said Stenton. “Arradiance has various patents covering our technology, and we are anticipating increasing revenues in this rapidly developing marketplace.”

In addition to having designed and developed the Atomic Layer Deposition (ALD) process equipment for these functional nanofilms, Arradiance also holds patents that apply to substrate formation and composition. This suite of intellectual property allows for full productization of the enabling nanofilm technology.

Demand for low noise, large area detection systems is growing rapidly as medical imaging and homeland security applications seek to reduce imaging dose and improve device throughput.

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