

# TechBriefs

## Savannah River National Laboratory

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[srnl.doe.gov](http://srnl.doe.gov)

### Benefits

- > Use existing equipment to identify x-rays or gamma rays
- > Low cost method to detect nuclear materials in remote locations

### Applications

- > Radioisotope detection, quantification, and location
- > Tracking the spread and location of nuclear materials

### Contact Information

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## System and Methods for Detecting High-Energy Photons

### Technology Overview

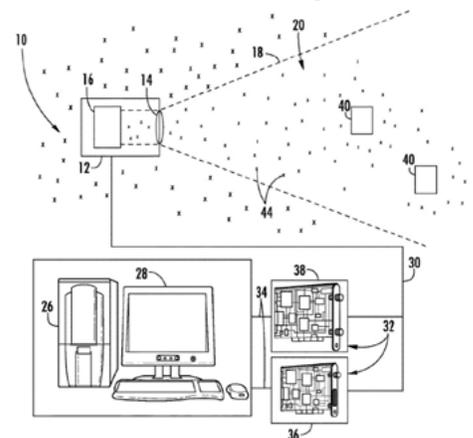
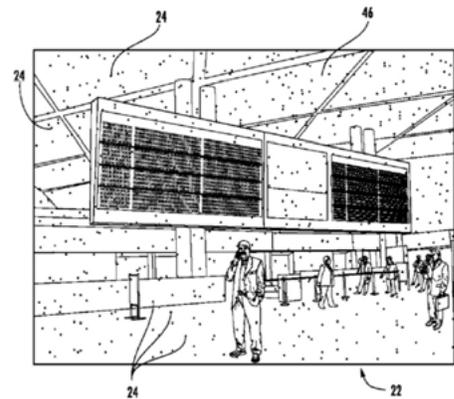
Savannah River National Laboratory (SRNL) has developed a novel technology for detecting high energy photons that includes a pixelated image detector, which can discriminate between visible light and high-energy photons.

### Description

Cameras are increasingly used to remotely monitor and inspect by capturing still and moving images of area. SRNL has developed a system and method that can utilize existing cameras to detect and quantify high-energy photons while simultaneously allowing the camera to capture still or video images. Government organizations, law enforcement agencies, and security personnel may use existing video cameras already installed in various locations to help identify the presence of nuclear material.

### Intellectual Property

This technology and methods for its use have been granted U.S. Patent No. 10,070,072 B2 (September 4, 2018), "System and Methods for Detecting High-Energy Photons" and is available for licensing.



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### Technology transfer

The Savannah River National Laboratory (SRNL) is the U.S. Department of Energy's (DOE) applied research and development laboratory at the Savannah River Site (SRS).

With its wide spectrum of expertise in areas such as homeland security, hydrogen technology, materials, sensors, and environmental science, SRNL's cutting edge technology delivers high dividends to its customers.

The management and operating contractor for SRS and SRNL is Savannah River Nuclear Solutions, LLC. SRNS is responsible for transferring its technologies to the private sector so that these technologies may have the collateral benefit of enhancing U.S. economic competitiveness.

### Partnering opportunities

SRNS invites interested companies with proven capabilities in this area of expertise to develop commercial applications for this process under a cooperative research and development agreement (CRADA) or licensing agreement. Interested companies will be requested to submit a business plan setting forth company qualifications, strategies, activities, and milestones for commercializing this invention. Qualifications should include past experience at bringing similar products to market, reasonable schedule for product launch, sufficient manufacturing capacity, established distribution networks, and evidence of sufficient financial resources for product development and launch.

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