

The Realisation of Research

# X-Ray Phase Contrast Imaging for Enhanced Threat Detection and Composite Material Analysis

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## Category(s):

Sensors Laboratory Equipment & Imaging Imaging - Non-medical

### **Description:**

X-Ray Phase Contrast Imaging for Enhanced Threat Detection and Composite Material Analysis

Available for: Licensing and co-development

#### Summary

Professor Robert Speller and his team at University College London have developed a novel phase contrast x-ray technology with potential for improved image quality and enhanced diagnostic potential when applied to non-destructive testing, homeland security and material science applications. This technology allows visualization of details invisible with conventional imaging techniques. This technology is currently available for licensing and UCL Business PLC, UCL wholly owned commercialisation company, are actively seeking partners for onward development.

## The Technology and its Advantages

All current baggage scanning systems utilise X-ray absorption contrast, this is hard or impossible to see, low X-ray attenuating objects such as thin wires or sheets of plastic. The UCL pre-prototype system uses completely novel physics of image formation and allows visualisation of objects that are invisible with absorption contrast and also enhances edges between different objects.

## **Intellectual Property Status**

Patent applications covering this technology have been filed. Claims over the apparatus for generating phase contrast x-ray images and the methodology used. GB Priority 0617637.4 (8th September 2006). Regional/National: Europe, Canada, US and Japan. The US patent has received notice of allowance and is expected to be granted early 2011.

#### **Further Information**

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