scintacor

THE CENTRE OF SCINTILLATION

for Oil & Gas

Advanced scintillator solutions for
oil and gas applications

www.scintacor.com

scintacor
THE CENTRE OF SCINTILLATION

Enabling detection and measurement in oil and gas applications

Reliable solutions designed for harsh, high-temperature, and demanding operating environments.

Scintacor develops specialist products for oil and gas exploration, production, and inspection applications, including Oil Well Logging, X-ray NDT inspection and Neutron Backscatter devices for refining applications.

With flexible manufacturing capabilities and robust quality assurance systems, we work closely with global tool manufacturers and system integrators to tailor scintillator performance to specific operational requirements, including sensitivity, response speed, emission characteristics, and long term environmental resilience.

key features

Li-6 Glass:

- Resilient, mechanically robust GS20® glass for neutron detection and measurement
- Custom geometries optimised for operation in mixed neutron and gamma radiation fields
- High neutron sensitivity with fast response
- Engineered for reliable performance in extreme temperature and pressure conditions

Flexible Screens:

- Flexible scintillator screens for demanding field and industrial applications
- Conformable formats capable of moulding to complex surfaces, including pipes and pipelines
- Enables the capture of bright, high-contrast images for NDT and inspection applications

custom scintillation components for oil and gas...

Oil Well Logging

GS20® glass has been adopted as a technology of choice by top tier oil field service companies for down-hole neutron-porosity logging tools.

Neutron Backscatter Devices for Refining

Neutron detection materials support industrial inspection systems used in refinery and process plants.

Flexible Screens for NDT Field Inspection

High resolution flexible scintillator screens for x-ray non-destructive testing on complex surfaces.

Research & Development

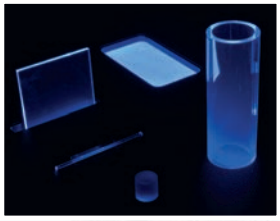
Scintacor supports research and development programmes focused on advancing inspection and measurement technologies.

oil well logging

Our **GS20®** glass has a proven ability to withstand high temperatures, and sustained vibration, making it ideally suited to demanding downhole environments.

Scintacor's **GS20® Lithium-6 glass scintillators** are widely used in neutron logging applications, offering excellent neutron sensitivity with low gamma response to support effective neutron-gamma discrimination.

Materials are carefully matched to photomultiplier tube or solid-state detector sensitivity and can be supplied in a wide range of shapes, sizes, and surface finishes to suit specific tool designs.



Why choose GS20® instead of He-3?

- ✓ **No He-3 supply risk**
- ✓ **Built for real-world field-deployment**
- ✓ **Shock-resistant and non-pressurised**
- ✓ **Smaller, lighter, more flexible systems**
- ✓ **Compatible with modern digital electronics**
- ✓ **High-rate capable for next generation systems**

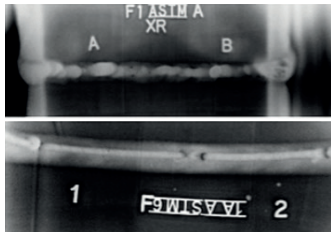
neutron backscatter devices

Neutron backscatter technology can be used in oil-refining and petrochemical facilities to perform non-intrusive measurements where conventional instrumentation cannot operate reliably. These systems are installed outside process vessels and use neutron interactions with hydrogen-rich materials to provide real-time insight into internal process conditions.

Neutron backscatter devices are particularly valuable in applications involving high temperatures, high pressures, fouling or foaming, corrosive or radioactive environments, and limited physical access.

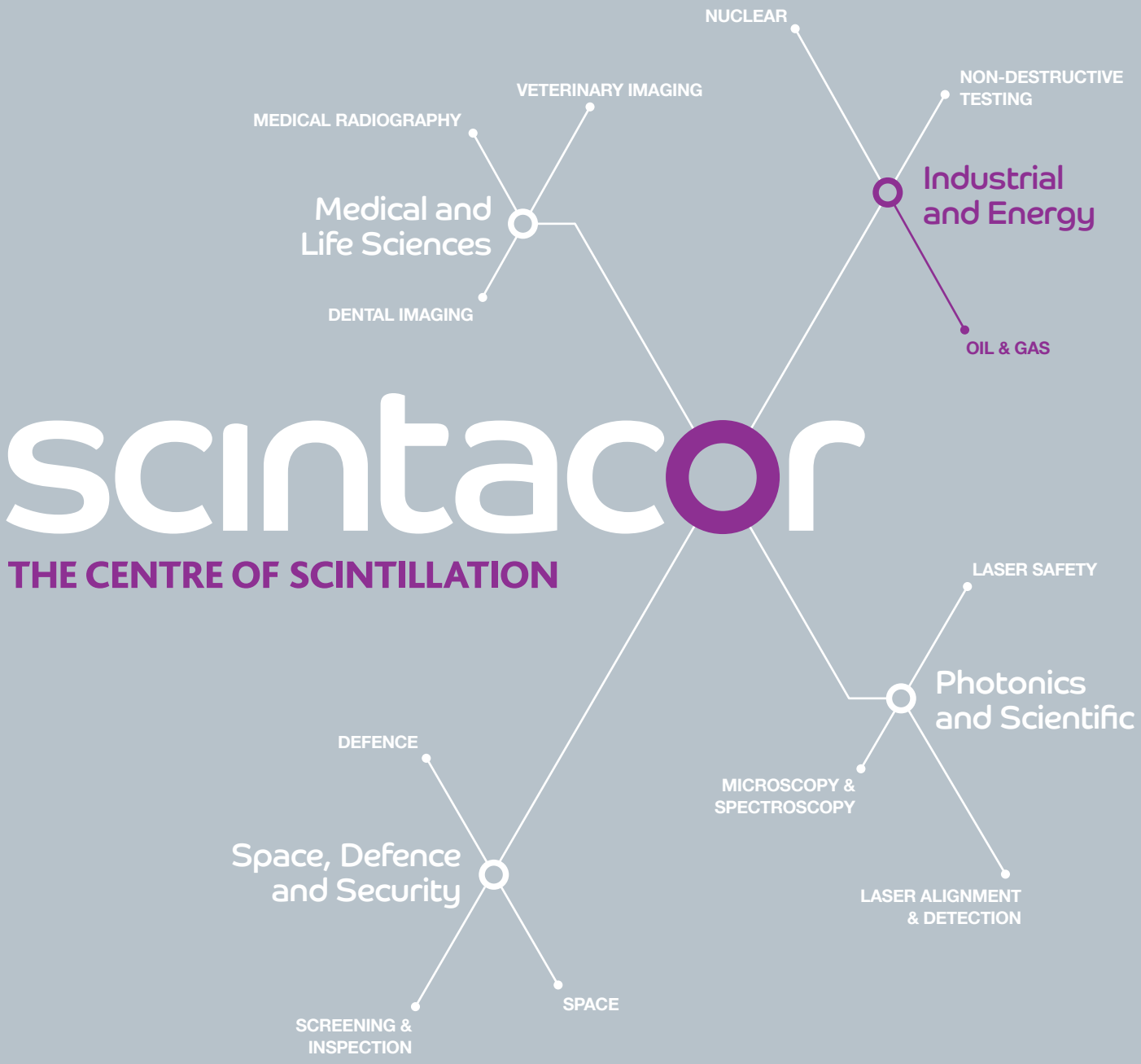
pipeline and component inspection

Scintacor's **Flexible Scintillation Screens** deliver high-quality x-ray imaging for non-destructive testing (NDT) on complex surfaces including pipelines, welds, and other cylindrical structures.



Engineered with Scintacor's advanced scintillator technology, these adaptable screens conform to curved or irregular surfaces, capturing bright, high-contrast images even in challenging inspection environments. Flexibility, sensitivity, and durability, makes them ideal for field-based and in-situ industrial radiographic inspection where precision and portability are essential.

FEATURE	GS20® Li-6 Glass (Scintacor)	Helium-3 Tubes
Detector Technology	Solid-state lithium-6 glass scintillator	Pressurised helium-3 gas proportional counter
Thermal Neutron Capture	Exceptional detection efficiency, achieving up to 95% thermal neutron detection with just 2 mm of material	High efficiency, but dependent on tube size and gas pressure
Speed & Count Rate Capability	Fast response (ns-scale), ideal for high rate and dynamic environments	Ion drift limits high rate performance
Mechanical Robustness	Rugged, solid and non-pressurised	More fragile
Design Flexibility	Highly configurable: plates, arrays, compact modules, custom geometries	Typically cylindrical form factors
Gamma Rejection	Smart discrimination using pulse-height or digital signal processing	Excellent intrinsic gamma rejection
Supply & Availability	Readily available	Constrained, limited supply



why Scintacor?

Our technologies are used in a wide variety of applications across x-ray, UV, EUV, IR, electron and neutron, detection and imaging. Trust our phosphor and scintillator expertise to optimise performance for your specific application.

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