

# Global Inorganic Scintillators Market Size Study, by Scintillation Material (NaI, CsI, LSO & LYSO), Type (Alkali Halides, Rare Earth Metals, Oxide Compounds), Application (Healthcare, Homeland Security & Defense, Nuclear Power Plants), and Regional Forecasts 2022-2032

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## Abstracts

The global inorganic scintillators market, valued at approximately USD 512.9 million in 2023, is projected to grow robustly at a CAGR of 7.40% during the forecast period from 2024 to 2032. Renowned for their exceptional sensitivity and energy resolution, inorganic scintillators play a critical role in radiation detection across industries like healthcare, defense, and nuclear energy. These materials, including NaI, CsI, LSO, and LYSO, are indispensable in medical imaging, homeland security, and power plant monitoring, where precision and reliability are paramount.

The rising demand for advanced imaging technologies in healthcare and the critical need for efficient nuclear radiation detection systems drive market expansion. In the medical sector, scintillators enhance imaging modalities such as PET and CT scans by delivering higher resolution and reduced noise. Concurrently, defense applications leverage scintillators for secure border monitoring and radiation detection. However, challenges like high production costs and the limited availability of rare earth materials may constrain market growth.

Advancements in material science are reshaping the market landscape. The development of next-generation scintillators, incorporating improved energy efficiency and broader spectral detection, has garnered significant attention. In addition, the emergence of sustainable and cost-effective production methods underscores the

market's alignment with evolving technological demands. In nuclear power plants, scintillators are instrumental in monitoring radiation levels, ensuring operational safety, and meeting regulatory requirements.

North America commands a significant share of the global inorganic scintillators market, driven by well-established healthcare infrastructure and ongoing advancements in medical imaging technologies. Europe follows closely, with a focus on homeland security and increasing adoption of scintillator-based systems in nuclear facilities. The Asia Pacific region is poised for the fastest growth, fueled by expanding healthcare investments, rising energy needs, and heightened defense spending.

Major market players included in this report are:

Hitachi Metals, Ltd.

Saint-Gobain

Dynasil Corporation

EPIC Crystal Co., Ltd.

Rexon Components, Inc.

Toshiba Materials Co., Ltd.

Mirion Technologies, Inc.

Ludlum Measurements, Inc.

Nihon Kessho Kogaku Co., Ltd.

Beijing Scitlion Technology Co., Ltd.

Kromek Group plc

Shanghai SICCAS High Technology Corporation

Scintacor Ltd.

Hamamatsu Photonics K.K.

Canberra Industries, Inc.

The detailed segments and sub-segment of the market are explained below:

By Scintillation Material:

Nal

Csl

LSO & LYSO

By Type:

Alkali Halides

Rare Earth Metals

Oxide Compounds

By Application:

Healthcare

Homeland Security & Defense

Nuclear Power Plants

By Region:

North America:

U.S.

Canada

Europe:

UK

Germany

France

Spain

Italy

Rest of Europe

Asia Pacific:

China

India

Japan

Australia

South Korea

Rest of Asia Pacific

Latin America:

Brazil

Mexico

Rest of Latin America

Middle East & Africa:

Saudi Arabia

South Africa

Rest of Middle East & Africa

Years considered for the study are as follows:

Historical Year – 2022

Base Year – 2023

Forecast Period – 2024 to 2032

Key Takeaways:

Market Estimates & Forecast for 10 years from 2022 to 2032.

Annualized revenues and regional-level analysis for each market segment.

Detailed analysis of geographical landscape with country-level insights into major regions.

Competitive landscape featuring insights on major players in the market.

Recommendations on business strategies and future approaches.

Analysis of competitive dynamics and demand-supply trends.

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