

Biophotonics: Technologies and Global Markets

Market Research Report | 2025-05-15 | 123 pages | BCC Research

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Report description:

Description

Report Scope

This report analyzes the biophotonics market across various applications, techniques and end uses, offering insights into key trends and growth drivers. The study focuses on such applications as see-through imaging, microscopy, biosensing/analytic sensing, spectro molecular imaging analysis, light therapy, surface imaging and inside imaging, assessing their adoption across diverse end-use segments, including medical diagnostics, medical therapeutics and test components.

The report provides a comprehensive regional analysis covering North America; Europe; Asia-Pacific; and the Rest of the World (RoW), which includes Latin America, the Middle East and Africa. It evaluates the market dynamics, including drivers, challenges and emerging trends, while highlighting innovations in material design and performance enhancement. The study concludes with an analysis of major market players and their offerings. The base year for the study is 2024, with projections for the years 2025 through 2030, including compound annual growth rate (CAGR) for the forecast period.

Report Includes

- 43 data tables and 37 additional tables
- An overview of the current and future global markets and technologies for biophotonics
- An analysis of the global market trends with market revenue data from 2024, estimates for 2025, forecasts for 2027, 2029, and projected CAGRs through 2030
- Estimates of the size and revenue prospects of the global market, along with a market share analysis by application, technique, end use, and region
- Facts and figures pertaining to the market dynamics, technological advances, regulations, and the impact of macroeconomic factors
- Analysis of the industry structure, including companies' market shares and rankings, strategic alliances, M&A activity and a venture funding outlook
- Overview of sustainability trends and ESG developments, with emphasis on consumer attitudes, and the ESG scores and

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practices of leading companies

- Profiles of the leading companies, including Thermo Fisher Scientific Inc., BD, Zeiss Group, Hamamatsu Photonics K.K., and Oxford Instruments plc.

Executive Summary

Summary:

The global market for biophotonics was valued at \$62.6 billion in 2024. It's expected to grow from \$68.4 billion in 2025 to reach \$113.1 billion by the end of 2030, at a compound annual growth rate (CAGR) of 10.6% from 2025 to 2030.

Biophotonics refers to the use of light-based technologies in biological and medical applications, enabling precise analysis, diagnostics and treatment. This field leverages photonics to improve the performance, speed and efficiency of biological systems, offering such benefits as non-invasive imaging, high sensitivity and real-time data collection.

The biophotonics market is experiencing rapid growth, driven by increasing demand for advanced medical diagnostics, therapeutic solutions and research tools. With innovations such as optical coherence tomography (OCT), fluorescence imaging and biosensors, biophotonics offers superior performance compared to traditional biomedical approaches. The rise of personalized medicine, early disease detection and minimally invasive procedures has further accelerated the adoption of biophotonics technologies.

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GLENBROOK TECHNOLOGIES
HAMAMATSU PHOTONICS K.K.
IDEX
IPG PHOTONICS CORP.
ISMO BIOPHOTONICS PVT. LTD.
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