

3D Protein Structure Analysis Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, 2017-2027 Segmented By Component (Instruments, Consumables, Software), By Technique (X-ray Crystallography, Nuclear Magnetic Resonance (NMR) Spectroscopy, Cryo-Electron Microscopy (Cryo-EM), Small Angle X-Ray Scattering (SAXS)), By End User (Biotechnology & Pharmaceutical Companies, Academic & Research Institutions, Others), By company and By Region

<https://marketpublishers.com/r/3A2E52C75597EN.html>

Date: June 2023

Pages: 116

Price: US\$ 4,900.00 (Single User License)

ID: 3A2E52C75597EN

Abstracts

The global 3D protein structure analysis market is anticipated to observe impressive growth during the forecast period 2023-2027. The major factors include a growing focus on automation and miniaturization in X-ray crystallography workflow, adoption of advanced technology, and rise in R&D activities that are augmenting the growth of the market. Protein structure is basically the three-dimensional arrangement of atoms in an amino acid. The three-dimensional structure of a protein at atomic resolution can be determined by crystallizing large proteins and then studying them by x-ray diffraction. Protein function is directly associated with the structure of that protein. The other factors supporting the market's growth are the rising demand for protein therapeutics, the rising prevalence of chronic, infectious, and protein-deficient diseases, the increase in the number of research laboratories, the high demand for personalized medicines, and increasing government grants. Also, the rising research and development (R&D) expenditure for drug discovery and development is facilitating the growth of the market.

Rising Focus on Automation and Miniaturization in X-Ray Crystallography Workflow

X-Ray crystallography is a technique by which the 3D structure of a protein can be obtained by X-ray diffraction, which helps to know the functionality of the protein. Growing emphasis on automation and miniaturization of existing crystallography is augmenting the growth of the market. This automation and miniaturization of x-ray crystallography are positively influencing the workflow by being more effective and efficient in 3D protein structure analysis. For instance, the bio instrumentation team at LBNL collaborated with ALS, GNF's researcher, and Syrrx to develop a first-generation automated crystal recognition and alignment system intended to work at synchrotron beamlines.

Increase in R&D in Drug Discovery and Development

Over the past few years, rising R&D activities in drug discovery and development is bolstering the growth of the market. This is attributed to the rising incidences of chronic, protein-deficient diseases and infectious diseases. For instance, the Food and Drug Administration (FDA) approved an average of 38 new drugs from 2010 to 2019, which is 60% more than the prior decade's average. Protein analysis is a crucial phase in identifying potential candidates. Also, the subsequent rise in R&D expenditure is propelling the growth of the market globally. As per the Evaluate Pharma report, pharmaceutical R&D expenditure globally was valued at USD 136 billion in 2012, which raised to USD 186 billion in 2019.

Technological Advancements

The rise in technological developments in equipment for protein structure analysis is fueling the growth of the market. The growing need for high-resolution information on protein structures is driving the growth of the market. The advent of advanced technologies like X-ray-free electron lasers, D8 DISCOVER Plus X-ray Diffraction (XRD), and others are helpful due to the enhanced accuracy and speed in analyzing the 3D structure of the protein. For instance, in 2019, Amgen (US) and the University of Washington's Institute for Protein Design (IPD) collaborated to test new technologies and generate protein-building tactics that can be applied to seek new drugs.

Market Segmentation

The global 3D protein structure analysis market is segmented into components,

techniques, end users, and company. Based on components, the market is divided into instruments, consumables, and software. Based on technique, the market is divided into x-ray crystallography, nuclear magnetic resonance (NMR) spectroscopy, cryo-electron microscopy (Cryo-EM), and small angle x-ray scattering (SAXS). Based on end-user, the market is divided into biotechnology & pharmaceutical companies, academic & research institutions, and others. In terms of country, the United States is expected to be a lucrative market in the forecast period due to the rising prevalence of chronic and infectious diseases in the country.

Market Players

Bruker Corporation, JEOL Ltd., Spectris plc, Thermo Fisher Scientific Inc., Merck KGaA, Schrodinger, Inc., Cambridge Isotope Laboratories, Inc., Rigaku Corporation, Jena Bioscience GmbH, and Dassault Systèmes SE are some of the leading companies operating in the market.

Report Scope:

In this report, global 3D protein structure analysis market has been segmented into the following categories, in addition to the industry trends, which have also been detailed below:

3D Protein Structure Analysis Market, By Component:

Instruments

Consumables

Software

3D Protein Structure Analysis Market, By Component:

X-ray Crystallography

Nuclear Magnetic Resonance (NMR) Spectroscopy

Cryo-Electron Microscopy (Cryo-EM)

Small Angle X-Ray Scattering (SAXS)

3D Protein Structure Analysis Market, By End User:

Biotechnology & Pharmaceutical Companies

Academic & Research Institutions

Others

3D Protein Structure Analysis Market, By Region:

North America

United States

Canada

Mexico

Asia-Pacific

China

India

Japan

Australia

South Korea

Europe & CIS

Germany

France

United Kingdom

Spain

Italy

South America

Brazil

Argentina

Colombia

Middle East & Africa

South Africa

Saudi Arabia

UAE

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in Global 3D Protein Structure Analysis Market

Available Customizations:

With the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

Contents

1. PRODUCT OVERVIEW

2. RESEARCH METHODOLOGY

3. EXECUTIVE SUMMARY

4. IMPACT OF COVID-19 ON GLOBAL 3D PROTEIN STRUCTURE ANALYSIS MARKET

5. VOICE OF CUSTOMER

6. GLOBAL 3D PROTEIN STRUCTURE ANALYSIS MARKET OUTLOOK

6.1. Market Size & Forecast

6.1.1. By Value

6.2. Market Share & Forecast

6.2.1. By Component (Instruments, Consumables, Software)

6.2.2. By Technique (X-ray Crystallography, Nuclear Magnetic Resonance (NMR) Spectroscopy, Cryo-Electron Microscopy (Cryo-EM), Small Angle X-Ray Scattering (SAXS))

6.2.3. By End User (Biotechnology & Pharmaceutical Companies, Academic & Research Institutions, Others)

6.2.4. By Company (2021)

6.2.5. By Region

6.3. Market Map

7. NORTH AMERICA 3D PROTEIN STRUCTURE ANALYSIS MARKET OUTLOOK

7.1. Market Size & Forecast

7.1.1. By Value

7.2. Market Share & Forecast

7.2.1. By Component

7.2.2. By Technique

7.2.3. By End User

7.2.4. By Country

7.3. North America: Country Analysis

7.3.1. United States 3D Protein Structure Analysis Market Outlook

- 7.3.1.1. Market Size & Forecast
 - 7.3.1.1.1. By Value
- 7.3.1.2. Market Share & Forecast
 - 7.3.1.2.1. By Component
 - 7.3.1.2.2. By Technique
 - 7.3.1.2.3. By End User
- 7.3.2. Canada 3D Protein Structure Analysis Market Outlook
 - 7.3.2.1. Market Size & Forecast
 - 7.3.2.1.1. By Value
 - 7.3.2.2. Market Share & Forecast
 - 7.3.2.2.1. By Component
 - 7.3.2.2.2. By Technique
 - 7.3.2.2.3. By End User
- 7.3.3. Mexico 3D Protein Structure Analysis Market Outlook
 - 7.3.3.1. Market Size & Forecast
 - 7.3.3.1.1. By Value
 - 7.3.3.2. Market Share & Forecast
 - 7.3.3.2.1. By Component
 - 7.3.3.2.2. By Technique
 - 7.3.3.2.3. By End User

8. EUROPE 3D PROTEIN STRUCTURE ANALYSIS MARKET OUTLOOK

- 8.1. Market Size & Forecast
 - 8.1.1. By Value
- 8.2. Market Share & Forecast
 - 8.2.1. By Component
 - 8.2.2. By Technique
 - 8.2.3. By End User
 - 8.2.4. By Country
- 8.3. Europe: Country Analysis
 - 8.3.1. France 3D Protein Structure Analysis Market Outlook
 - 8.3.1.1. Market Size & Forecast
 - 8.3.1.1.1. By Value
 - 8.3.1.2. Market Share & Forecast
 - 8.3.1.2.1. By Component
 - 8.3.1.2.2. By Technique
 - 8.3.1.2.3. By End User
 - 8.3.2. Germany 3D Protein Structure Analysis Market Outlook

- 8.3.2.1. Market Size & Forecast
 - 8.3.2.1.1. By Value
- 8.3.2.2. Market Share & Forecast
 - 8.3.2.2.1. By Component
 - 8.3.2.2.2. By Technique
 - 8.3.2.2.3. By End User
- 8.3.3. United Kingdom 3D Protein Structure Analysis Market Outlook
 - 8.3.3.1. Market Size & Forecast
 - 8.3.3.1.1. By Value
 - 8.3.3.2. Market Share & Forecast
 - 8.3.3.2.1. By Component
 - 8.3.3.2.2. By Technique
 - 8.3.3.2.3. By End User
- 8.3.4. Italy 3D Protein Structure Analysis Market Outlook
 - 8.3.4.1. Market Size & Forecast
 - 8.3.4.1.1. By Value
 - 8.3.4.2. Market Share & Forecast
 - 8.3.4.2.1. By Component
 - 8.3.4.2.2. By Technique
 - 8.3.4.2.3. By End User
- 8.3.5. Spain 3D Protein Structure Analysis Market Outlook
 - 8.3.5.1. Market Size & Forecast
 - 8.3.5.1.1. By Value
 - 8.3.5.2. Market Share & Forecast
 - 8.3.5.2.1. By Component
 - 8.3.5.2.2. By Technique
 - 8.3.5.2.3. By End User

9. ASIA-PACIFIC 3D PROTEIN STRUCTURE ANALYSIS MARKET OUTLOOK

- 9.1. Market Size & Forecast
 - 9.1.1. By Value
- 9.2. Market Share & Forecast
 - 9.2.1. By Component
 - 9.2.2. By Technique
 - 9.2.3. By End User
 - 9.2.4. By Country
- 9.3. Asia-Pacific: Country Analysis
 - 9.3.1. China 3D Protein Structure Analysis Market Outlook

- 9.3.1.1. Market Size & Forecast
 - 9.3.1.1.1. By Value
- 9.3.1.2. Market Share & Forecast
 - 9.3.1.2.1. By Component
 - 9.3.1.2.2. By Technique
 - 9.3.1.2.3. By End User
- 9.3.2. India 3D Protein Structure Analysis Market Outlook
 - 9.3.2.1. Market Size & Forecast
 - 9.3.2.1.1. By Value
 - 9.3.2.2. Market Share & Forecast
 - 9.3.2.2.1. By Component
 - 9.3.2.2.2. By Technique
 - 9.3.2.2.3. By End User
- 9.3.3. Japan 3D Protein Structure Analysis Market Outlook
 - 9.3.3.1. Market Size & Forecast
 - 9.3.3.1.1. By Value
 - 9.3.3.2. Market Share & Forecast
 - 9.3.3.2.1. By Component
 - 9.3.3.2.2. By Technique
 - 9.3.3.2.3. By End User
- 9.3.4. South Korea 3D Protein Structure Analysis Market Outlook
 - 9.3.4.1. Market Size & Forecast
 - 9.3.4.1.1. By Value
 - 9.3.4.2. Market Share & Forecast
 - 9.3.4.2.1. By Component
 - 9.3.4.2.2. By Technique
 - 9.3.4.2.3. By End User
- 9.3.5. Australia 3D Protein Structure Analysis Market Outlook
 - 9.3.5.1. Market Size & Forecast
 - 9.3.5.1.1. By Value
 - 9.3.5.2. Market Share & Forecast
 - 9.3.5.2.1. By Component
 - 9.3.5.2.2. By Technique
 - 9.3.5.2.3. By End User

10. SOUTH AMERICA 3D PROTEIN STRUCTURE ANALYSIS MARKET OUTLOOK

- 10.1. Market Size & Forecast
 - 10.1.1. By Value

10.2. Market Share & Forecast

10.2.1. By Component

10.2.2. By Technique

10.2.3. By End User

10.2.4. By Country

10.3. South America: Country Analysis

10.3.1. Brazil 3D Protein Structure Analysis Market Outlook

10.3.1.1. Market Size & Forecast

10.3.1.1.1. By Value

10.3.1.2. Market Share & Forecast

10.3.1.2.1. By Component

10.3.1.2.2. By Technique

10.3.1.2.3. By End User

10.3.2. Argentina 3D Protein Structure Analysis Market Outlook

10.3.2.1. Market Size & Forecast

10.3.2.1.1. By Value

10.3.2.2. Market Share & Forecast

10.3.2.2.1. By Component

10.3.2.2.2. By Technique

10.3.2.2.3. By End User

10.3.3. Colombia 3D Protein Structure Analysis Market Outlook

10.3.3.1. Market Size & Forecast

10.3.3.1.1. By Value

10.3.3.2. Market Share & Forecast

10.3.3.2.1. By Component

10.3.3.2.2. By Technique

10.3.3.2.3. By End User

11. MIDDLE EAST AND AFRICA 3D PROTEIN STRUCTURE ANALYSIS MARKET OUTLOOK

11.1. Market Size & Forecast

11.1.1. By Value

11.2. Market Share & Forecast

11.2.1. By Component

11.2.2. By Technique

11.2.3. By End User

11.2.4. By Country

11.3. MEA: Country Analysis

11.3.1. South Africa 3D Protein Structure Analysis Market Outlook

11.3.1.1. Market Size & Forecast

11.3.1.1.1. By Value

11.3.1.2. Market Share & Forecast

11.3.1.2.1. By Component

11.3.1.2.2. By Technique

11.3.1.2.3. By End User

11.3.2. Saudi Arabia 3D Protein Structure Analysis Market Outlook

11.3.2.1. Market Size & Forecast

11.3.2.1.1. By Value

11.3.2.2. Market Share & Forecast

11.3.2.2.1. By Component

11.3.2.2.2. By Technique

11.3.2.2.3. By End User

11.3.3. UAE 3D Protein Structure Analysis Market Outlook

11.3.3.1. Market Size & Forecast

11.3.3.1.1. By Value

11.3.3.2. Market Share & Forecast

11.3.3.2.1. By Component

11.3.3.2.2. By Technique

11.3.3.2.3. By End User

12. MARKET DYNAMICS

12.1. Drivers

12.2. Challenges

13. MARKET TRENDS & DEVELOPMENTS

14. COMPETITIVE LANDSCAPE (INCLUSIVE SWOT ANALYSIS)

14.1. Bruker Corporation

14.2. JEOL Ltd.

14.3. Spectris plc

14.4. Thermo Fisher Scientific Inc.

14.5. Merck KGaA

14.6. Schrodinger, Inc.

14.7. Cambridge Isotope Laboratories, Inc.

14.8. Rigaku Corporation

14.9. Jena Bioscience GmbH

14.10. Dassault Systèmes SE

15. STRATEGIC RECOMMENDATIONS

I would like to order

Product name: 3D Protein Structure Analysis Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, 2017-2027 Segmented By Component (Instruments, Consumables, Software), By Technique (X-ray Crystallography, Nuclear Magnetic Resonance (NMR) Spectroscopy, Cryo-Electron Microscopy (Cryo-EM), Small Angle X-Ray Scattering (SAXS)), By End User (Biotechnology & Pharmaceutical Companies, Academic & Research Institutions, Others), By company and By Region

Product link: <https://marketpublishers.com/r/3A2E52C75597EN.html>

Price: US\$ 4,900.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/3A2E52C75597EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms

& Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below
and fax the completed form to +44 20 7900 3970