

Failure Analysis - Global Market Outlook (2017-2026)

https://marketpublishers.com/r/F5CFC4B45B8EN.html Date: September 2018 Pages: 167 Price: US\$ 4,150.00 (Single User License) ID: F5CFC4B45B8EN

Abstracts

According to Stratistics MRC, the Failure Analysis Market is accounted for \$ 5300.26 Million in 2017 and is expected to reach \$11150.26 Million by 2026 growing at a CAGR of 8.6% during the forecast period. Rising applications of failure analysis equipment in nanotechnology and medical applications and advancements in technology and usage of failure analysis equipment in semiconductors are some of the factors driving the market. However, high maintenance and equipment cost may hinder the market growth. Demand for failure analysis equipment in emerging nations may create an opportunity to the market.

Failure analysis is a process in which the origin cause for the failure is recognized and the correction in the product is done. It is widely used in sectors such as material science, bioscience and other sectors. These processes mainly deal with the failures in structures, assemblies and components. The recognition of failure is a multilevel process which includes the physical investigation of the product. This process is done by the experts in those fields who can recognize the problem and who can make essential changes in the products.

By Equipment, Focused ION Beam System (FIB) segment accounted for the largest market share in the global Failure Analysis market owing to their extensive utilization.

Based on geography, Asia Pacific is expected to dominate the global Failure Analysis market during the forecast period owing to investing heavily in medical technologies, nanotechnology and R&D infrastructure.

Some of the key players in Failure Analysis market include FEI Company, Hitachi High, Technologies Corporation, Jeol Ltd., CARL Zeiss SMT GmbH, Intertek Group PLC, Thermo Fisher Scientific Inc, Motion X Corporation, Tescan Orsay Holding, A.S., EAG (Evans Analytical Group) Inc., A&D Company Ltd., Raytheon Company (U.S.), Meyer



Burger Technology, Canon Anelva Corporation, Veeco Instruments Inc., Bruker Corporation, Plasma-Therm, Scia Systems GmbH, EDAX, Inc., Innovative Circuits Engineering, Inc. and IXRF Systems, Inc.

Equipments Covered:

Scanning Electron Microscope (SEM)

Dual-Beam Systems

Focused ION Beam System (FIB)

Transmission Electron Microscope (TEM)

Technologies Covered:

Broad ION Milling (BIM)

Reactive ION Etching (RIE)

Secondary ION Mass Spectroscopy (SIMS)

Secondary ION Mass Spectroscopy (SIMS)

Energy Dispersive X-Ray Spectroscopy (EDX)

Focused ION Beam (FIB)

Materials Technology

Physical Technology

Non-Destructive Technology (NDT)

Applications Covered:

Bio Science



Material Science

Industrial Science

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

France

Italy

UK

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

Failure Analysis - Global Market Outlook (2017-2026)



New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

WHAT OUR REPORT OFFERS:

Market share assessments for the regional and country level segments

Market share analysis of the top industry players

Strategic recommendations for the new entrants

Market forecasts for a minimum of 9 years of all the mentioned segments, sub



segments and the regional markets

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements



Contents

1 EXECUTIVE SUMMARY

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Technology Analysis
- 3.7 Application Analysis
- 3.8 Emerging Markets
- 3.9 Futuristic Market Scenario

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry



5 GLOBAL FAILURE ANALYSIS MARKET, BY EQUIPMENT

- 5.1 Introduction
- 5.2 Scanning Electron Microscope (SEM)
- 5.3 Dual–Beam Systems
- 5.4 Focused ION Beam System (FIB)
- 5.5 Transmission Electron Microscope (TEM)

6 GLOBAL FAILURE ANALYSIS MARKET, BY TESTING

- 6.1 Introduction
- 6.2 Physical Testing
- 6.3 Metallurgical Testing
- 6.4 Non-destructive Testing (NDT)
- 6.5 Materials Testing
- 6.6 Electronic Component Failure Analysis
- 6.7 Mechanical Testing
- 6.8 Chemical Testing

7 GLOBAL FAILURE ANALYSIS MARKET, BY TECHNOLOGY

- 7.1 Introduction
- 7.2 Broad ION Milling (BIM)
- 7.3 Reactive ION Etching (RIE)
- 7.4 Secondary ION Mass Spectroscopy (SIMS)
- 7.5 Energy Dispersive X-Ray Spectroscopy (EDX)
- 7.6 Focused ION Beam (FIB)
- 7.7 Materials Technology
- 7.8 Physics of Failure Analysis
- 7.9 Non-Destructive Technology (NDT)
- 7.1 Fault Tree Analysis(FTA)
- 7.11 Functional Failure Analysis
- 7.12 Destructive Physical Analysis
- 7.13 Sneak Circuit Analysis
- 7.14 Software Failure Analysis
- 7.15 Common-Mode Failure Analysis
- 7.16 Failure Modes Effect Analysis (FMEA)
- 7.17 Failure Modes, Effects, and Criticality Analysis (FMECA)
- 7.18 Other Technologies



8 GLOBAL FAILURE ANALYSIS MARKET, BY APPLICATION

- 8.1 Introduction
- 8.2 Bio Science
 - 8.2.1 Neuroscience
 - 8.2.2 Cellular Biology
 - 8.2.3 Biomedical Engineering
 - 8.2.4 Structural Biology
- 8.3 Material Science
 - 8.3.1 Paper & Fiber Material
 - 8.3.2 Polymer
 - 8.3.3 Nanofabrication
 - 8.3.4 Ceramic & Glass
 - 8.3.5 Metals & Metallurgy
 - 8.3.6 MEMS and Thin Film Production
 - 8.3.7 Semiconductor Manufacturing
- 8.4 Industrial Science
 - 8.4.1 Power Generation & Energy
 - 8.4.2 Chemical
 - 8.4.3 Automotive & Aerospace
 - 8.4.4 Oil & Gas
 - 8.4.5 Renewable Energy
 - 8.4.6 Mining
 - 8.4.7 Machinery & Tools
 - 8.4.8 Other Industrial Science

9 GLOBAL FAILURE ANALYSIS MARKET, BY GEOGRAPHY

- 9.1 Introduction
 9.2 North America
 9.2.1 US
 9.2.2 Canada
 9.2.3 Mexico
 9.3 Europe
 9.3.1 Germany
 9.3.2 UK
 9.3.3 Italy
 - 9.3.4 France



- 9.3.5 Spain
- 9.3.6 Rest of Europe
- 9.4 Asia Pacific
 - 9.4.1 Japan
 - 9.4.2 China
 - 9.4.3 India
 - 9.4.4 Australia
 - 9.4.5 New Zealand
 - 9.4.6 South Korea
 - 9.4.7 Rest of Asia Pacific
- 9.5 South America
 - 9.5.1 Argentina
 - 9.5.2 Brazil
 - 9.5.3 Chile
 - 9.5.4 Rest of South America
- 9.6 Middle East & Africa
 - 9.6.1 Saudi Arabia
 - 9.6.2 UAE
 - 9.6.3 Qatar
 - 9.6.4 South Africa
 - 9.6.5 Rest of Middle East & Africa

10 KEY DEVELOPMENTS

- 10.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 10.2 Acquisitions & Mergers
- 10.3 New Product Launch
- 10.4 Expansions
- 10.5 Other Key Strategies

11 COMPANY PROFILING

- 11.1 FEI Company
- 11.2 Hitachi High-Technologies Corporation
- 11.3 Jeol Ltd.
- 11.4 CARL Zeiss SMT GmbH
- 11.5 Intertek Group PLC
- 11.6 Thermo Fisher Scientific Inc
- 11.7 Motion X Corporation



- 11.8 Tescan Orsay Holding, A.S.
- 11.9 EAG (Evans Analytical Group) Inc.
- 11.1 A&D Company Ltd.
- 11.11 Raytheon Company (U.S.)
- 11.12 Meyer Burger Technology
- 11.13 Canon Anelva Corporation
- 11.14 Veeco Instruments Inc.
- 11.15 Bruker Corporation
- 11.16 Plasma-Therm
- 11.17 Scia Systems GmbH
- 11.18 EDAX, Inc.
- 11.19 Innovative Circuits Engineering, Inc.
- 11.2 IXRF Systems, Inc.

12. LIST OF TABLES

Table 1 Global Failure Analysis Market Outlook, By Region (2016-2026) (US \$MN)

Table 2 Global Failure Analysis Market Outlook, By Equipment (2016-2026) (US \$MN) Table 3 Global Failure Analysis Market Outlook, By Scanning Electron Microscope (SEM) (2016-2026) (US \$MN)

Table 4 Global Failure Analysis Market Outlook, By Dual–Beam Systems (2016-2026) (US \$MN)

Table 5 Global Failure Analysis Market Outlook, By Focused ION Beam System (FIB) (2016-2026) (US \$MN)

Table 6 Global Failure Analysis Market Outlook, By Transmission Electron Microscope (TEM) (2016-2026) (US \$MN)

Table 7 Global Failure Analysis Market Outlook, By Testing (2016-2026) (US \$MN) Table 8 Global Failure Analysis Market Outlook, By Physical Testing (2016-2026) (US \$MN)

Table 9 Global Failure Analysis Market Outlook, By Metallurgical Testing (2016-2026) (US \$MN)

Table 10 Global Failure Analysis Market Outlook, By Non-destructive Testing (NDT) (2016-2026) (US \$MN)

Table 11 Global Failure Analysis Market Outlook, By Materials Testing (2016-2026) (US \$MN)

Table 12 Global Failure Analysis Market Outlook, By Electronic Component Failure Analysis (2016-2026) (US \$MN)

Table 13 Global Failure Analysis Market Outlook, By Mechanical Testing (2016-2026) (US \$MN)



Table 14 Global Failure Analysis Market Outlook, By Chemical Testing (2016-2026) (US \$MN)

Table 15 Global Failure Analysis Market Outlook, By Technology (2016-2026) (US \$MN)

Table 16 Global Failure Analysis Market Outlook, By Broad ION Milling (BIM) (2016-2026) (US \$MN)

Table 17 Global Failure Analysis Market Outlook, By Reactive ION Etching (RIE) (2016-2026) (US \$MN)

Table 18 Global Failure Analysis Market Outlook, By Secondary ION Mass Spectroscopy (SIMS) (2016-2026) (US \$MN)

Table 19 Global Failure Analysis Market Outlook, By Energy Dispersive X-Ray Spectroscopy (EDX) (2016-2026) (US \$MN)

Table 20 Global Failure Analysis Market Outlook, By Focused ION Beam (FIB) (2016-2026) (US \$MN)

Table 21 Global Failure Analysis Market Outlook, By Materials Technology (2016-2026) (US \$MN)

Table 22 Global Failure Analysis Market Outlook, By Physics of Failure Analysis (2016-2026) (US \$MN)

Table 23 Global Failure Analysis Market Outlook, By Non-Destructive Technology (NDT) (2016-2026) (US \$MN)

Table 24 Global Failure Analysis Market Outlook, By Fault Tree Analysis(FTA) (2016-2026) (US \$MN)

Table 25 Global Failure Analysis Market Outlook, By Functional Failure Analysis (2016-2026) (US \$MN)

Table 26 Global Failure Analysis Market Outlook, By Destructive Physical Analysis (2016-2026) (US \$MN)

Table 27 Global Failure Analysis Market Outlook, By Sneak Circuit Analysis (2016-2026) (US \$MN)

Table 28 Global Failure Analysis Market Outlook, By Software Failure Analysis (2016-2026) (US \$MN)

Table 29 Global Failure Analysis Market Outlook, By Common-Mode Failure Analysis (2016-2026) (US \$MN)

Table 30 Global Failure Analysis Market Outlook, By Failure Modes Effect Analysis (FMEA) (2016-2026) (US \$MN)

Table 31 Global Failure Analysis Market Outlook, By Failure Modes, Effects, and Criticality Analysis (FMECA) (2016-2026) (US \$MN)

Table 32 Global Failure Analysis Market Outlook, By Other Technologies (2016-2026) (US \$MN)

Table 33 Global Failure Analysis Market Outlook, By Application (2016-2026) (US \$MN)



Table 34 Global Failure Analysis Market Outlook, By Bio Science (2016-2026) (US \$MN)

Table 35 Global Failure Analysis Market Outlook, By Neuroscience (2016-2026) (US \$MN)

Table 36 Global Failure Analysis Market Outlook, By Cellular Biology (2016-2026) (US \$MN)

Table 37 Global Failure Analysis Market Outlook, By Biomedical Engineering (2016-2026) (US \$MN)

Table 38 Global Failure Analysis Market Outlook, By Structural Biology (2016-2026) (US \$MN)

Table 39 Global Failure Analysis Market Outlook, By Material Science (2016-2026) (US \$MN)

Table 40 Global Failure Analysis Market Outlook, By Paper & Fiber Material (2016-2026) (US \$MN)

Table 41 Global Failure Analysis Market Outlook, By Polymer (2016-2026) (US \$MN) Table 42 Global Failure Analysis Market Outlook, By Nanofabrication (2016-2026) (US \$MN)

Table 43 Global Failure Analysis Market Outlook, By Ceramic & Glass (2016-2026) (US \$MN)

Table 44 Global Failure Analysis Market Outlook, By Metals & Metallurgy (2016-2026) (US \$MN)

Table 45 Global Failure Analysis Market Outlook, By MEMS and Thin Film Production (2016-2026) (US \$MN)

Table 46 Global Failure Analysis Market Outlook, By Semiconductor Manufacturing (2016-2026) (US \$MN)

Table 47 Global Failure Analysis Market Outlook, By Industrial Science (2016-2026) (US \$MN)

Table 48 Global Failure Analysis Market Outlook, By Power Generation & Energy (2016-2026) (US \$MN)

Table 49 Global Failure Analysis Market Outlook, By Chemical (2016-2026) (US \$MN) Table 50 Global Failure Analysis Market Outlook, By Automotive & Aerospace (2016-2026) (US \$MN)

Table 51 Global Failure Analysis Market Outlook, By Oil & Gas (2016-2026) (US \$MN) Table 52 Global Failure Analysis Market Outlook, By Renewable Energy (2016-2026) (US \$MN)

Table 53 Global Failure Analysis Market Outlook, By Mining (2016-2026) (US \$MN) Table 54 Global Failure Analysis Market Outlook, By Machinery & Tools (2016-2026) (US \$MN)

Table 55 Global Failure Analysis Market Outlook, By Other Industrial Science



(2016-2026) (US \$MN)

Note North America, Europe, Asia Pacific, South America and Middle East & Africa are represented in above manner.



I would like to order

Product name: Failure Analysis - Global Market Outlook (2017-2026) Product link: https://marketpublishers.com/r/F5CFC4B45B8EN.html Price: US\$ 4,150.00 (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 <u>https://marketpublishers.com/r/F5CFC4B45B8EN.html</u>

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

Custumer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <u>https://marketpublishers.com/docs/terms.html</u>

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