

Atomic Layer Deposition Equipment Market Report by Product (Metal ALD, Aluminum Oxide ALD, Plasma Enhanced ALD, Catalytic ALD, and Others), Application (Semiconductors, Solar Devices, Electronics, Medical Equipment, and Others), and Region 2024-2032

<https://marketpublishers.com/r/AA5352256424EN.html>

Date: April 2024

Pages: 137

Price: US\$ 3,899.00 (Single User License)

ID: AA5352256424EN

Abstracts

The global atomic layer deposition equipment market size reached US\$ 6.6 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 22.6 Billion by 2032, exhibiting a growth rate (CAGR) of 14.5% during 2024-2032.

Atomic layer deposition (ALD) refers to a vapor phase technique that is deployed for depositing ultra-thin films on top of a substrate after getting exposed to alternating precursors. Some of the commonly used equipment includes single wafer, batch, plasma, large substrate ALD reactors, thin-film electroluminescent (TFEL) displays and other electronic components. These tools help in ensuring uniformity by controlling the thickness and improving or modifying various properties of substrates, including resistance, conductivity, and strength. On account of these properties, it is used in semiconductors, electronics, optical devices, fuel cells and thermoelectric materials. At present, atomic layer deposition equipment is commercially available in varying types, such as metal, plasma-enhanced, aluminum oxide, and catalytic.

Atomic Layer Deposition Equipment Market Trends:

The widespread adoption of ALD equipment across various research and development (R&D) facilities, healthcare, and solar sector on account of the increasing need for flexible tools to improve functionality and offer higher accuracy is primarily driving the market growth. In line with this, the rising demand for miniaturization, semiconductors,

and power management systems in electronic materials for depositing various products, including data storage, small electronic components and display devices are further contributing to the market growth. This is further supported by the utilization of atomic layer deposition equipment for manufacturing integrated circuits (IC), chips, and micro-electromechanical systems (MEMS) products, such as optical switches, sensors, and computers. In line with this, significant technological advancements have led to the introduction of spatial ALD for flexible electronics and three-dimensional (3D) printed reactors to ensure uniformity and conformity of complex 3D nanostructures, which is acting as another growth-inducing factor. Additionally, the escalating requirement for solid-state thin-film batteries due to the increasing uptake of implantable, smartwatches, smartphones and medical equipment is contributing to the market growth. Apart from this, strategic collaborations amongst key players for launching plasma-enhanced ALD are creating a positive outlook for the market.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global atomic layer deposition equipment market report, along with forecasts at the global, regional and country level from 2024-2032. Our report has categorized the market based on product and application.

Breakup by Product:

- Metal ALD
- Aluminum Oxide ALD
- Plasma Enhanced ALD
- Catalytic ALD
- Others

Breakup by Application:

- Semiconductors
- Solar Devices
- Electronics
- Medical Equipment
- Others

Breakup by Region:

- North America

United States
Canada
Asia-Pacific
China
Japan
India
South Korea
Australia
Indonesia
Others
Europe
Germany
France
United Kingdom
Italy
Spain
Russia
Others
Latin America
Brazil
Mexico
Others
Middle East and Africa

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being Arradiance LLC, ASM International, Beneq Oy, CVD Equipment Corporation, Forge Nano Inc., Kurt J. Lesker Company, Lam Research Corporation, Oxford Instruments plc, Picosun Oy (Applied Materials Inc.), SENTECH Instruments GmbH, Veeco Instruments Inc., Wonik IPS Co. Ltd. and Tokyo Electron Limited.

Key Questions Answered in This Report

1. What was the size of the global atomic layer deposition equipment market in 2023?
2. What is the expected growth rate of the global atomic layer deposition equipment market during 2024-2032?
3. What has been the impact of COVID-19 on the global atomic layer deposition equipment market?

4. What are the key factors driving the global atomic layer deposition equipment market?
5. What is the breakup of the global atomic layer deposition equipment market based on the product?
6. What is the breakup of the global atomic layer deposition equipment market based on the application?
7. What are the key regions in the global atomic layer deposition equipment market?
8. Who are the key players/companies in the global atomic layer deposition equipment market?

Contents

1 PREFACE

2 SCOPE AND METHODOLOGY

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
 - 2.3.1 Primary Sources
 - 2.3.2 Secondary Sources
- 2.4 Market Estimation
 - 2.4.1 Bottom-Up Approach
 - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

3 EXECUTIVE SUMMARY

4 INTRODUCTION

- 4.1 Overview
- 4.2 Key Industry Trends

5 GLOBAL ATOMIC LAYER DEPOSITION EQUIPMENT MARKET

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

6 MARKET BREAKUP BY PRODUCT

- 6.1 Metal ALD
 - 6.1.1 Market Trends
 - 6.1.2 Market Forecast
- 6.2 Aluminum Oxide ALD
 - 6.2.1 Market Trends
 - 6.2.2 Market Forecast
- 6.3 Plasma Enhanced ALD

- 6.3.1 Market Trends
- 6.3.2 Market Forecast
- 6.4 Catalytic ALD
 - 6.4.1 Market Trends
 - 6.4.2 Market Forecast
- 6.5 Others
 - 6.5.1 Market Trends
 - 6.5.2 Market Forecast

7 MARKET BREAKUP BY APPLICATION

- 7.1 Semiconductors
 - 7.1.1 Market Trends
 - 7.1.2 Market Forecast
- 7.2 Solar Devices
 - 7.2.1 Market Trends
 - 7.2.2 Market Forecast
- 7.3 Electronics
 - 7.3.1 Market Trends
 - 7.3.2 Market Forecast
- 7.4 Medical Equipment
 - 7.4.1 Market Trends
 - 7.4.2 Market Forecast
- 7.5 Others
 - 7.5.1 Market Trends
 - 7.5.2 Market Forecast

8 MARKET BREAKUP BY REGION

- 8.1 North America
 - 8.1.1 United States
 - 8.1.1.1 Market Trends
 - 8.1.1.2 Market Forecast
 - 8.1.2 Canada
 - 8.1.2.1 Market Trends
 - 8.1.2.2 Market Forecast
- 8.2 Asia-Pacific
 - 8.2.1 China
 - 8.2.1.1 Market Trends

- 8.2.1.2 Market Forecast
- 8.2.2 Japan
 - 8.2.2.1 Market Trends
 - 8.2.2.2 Market Forecast
- 8.2.3 India
 - 8.2.3.1 Market Trends
 - 8.2.3.2 Market Forecast
- 8.2.4 South Korea
 - 8.2.4.1 Market Trends
 - 8.2.4.2 Market Forecast
- 8.2.5 Australia
 - 8.2.5.1 Market Trends
 - 8.2.5.2 Market Forecast
- 8.2.6 Indonesia
 - 8.2.6.1 Market Trends
 - 8.2.6.2 Market Forecast
- 8.2.7 Others
 - 8.2.7.1 Market Trends
 - 8.2.7.2 Market Forecast
- 8.3 Europe
 - 8.3.1 Germany
 - 8.3.1.1 Market Trends
 - 8.3.1.2 Market Forecast
 - 8.3.2 France
 - 8.3.2.1 Market Trends
 - 8.3.2.2 Market Forecast
 - 8.3.3 United Kingdom
 - 8.3.3.1 Market Trends
 - 8.3.3.2 Market Forecast
 - 8.3.4 Italy
 - 8.3.4.1 Market Trends
 - 8.3.4.2 Market Forecast
 - 8.3.5 Spain
 - 8.3.5.1 Market Trends
 - 8.3.5.2 Market Forecast
 - 8.3.6 Russia
 - 8.3.6.1 Market Trends
 - 8.3.6.2 Market Forecast
 - 8.3.7 Others

8.3.7.1 Market Trends

8.3.7.2 Market Forecast

8.4 Latin America

8.4.1 Brazil

8.4.1.1 Market Trends

8.4.1.2 Market Forecast

8.4.2 Mexico

8.4.2.1 Market Trends

8.4.2.2 Market Forecast

8.4.3 Others

8.4.3.1 Market Trends

8.4.3.2 Market Forecast

8.5 Middle East and Africa

8.5.1 Market Trends

8.5.2 Market Breakup by Country

8.5.3 Market Forecast

9 SWOT ANALYSIS

9.1 Overview

9.2 Strengths

9.3 Weaknesses

9.4 Opportunities

9.5 Threats

10 VALUE CHAIN ANALYSIS

11 PORTERS FIVE FORCES ANALYSIS

11.1 Overview

11.2 Bargaining Power of Buyers

11.3 Bargaining Power of Suppliers

11.4 Degree of Competition

11.5 Threat of New Entrants

11.6 Threat of Substitutes

12 PRICE ANALYSIS

13 COMPETITIVE LANDSCAPE

- 13.1 Market Structure
- 13.2 Key Players
- 13.3 Profiles of Key Players
 - 13.3.1 Arradiance LLC
 - 13.3.1.1 Company Overview
 - 13.3.1.2 Product Portfolio
 - 13.3.2 ASM International
 - 13.3.2.1 Company Overview
 - 13.3.2.2 Product Portfolio
 - 13.3.2.3 Financials
 - 13.3.3 Beneq Oy
 - 13.3.3.1 Company Overview
 - 13.3.3.2 Product Portfolio
 - 13.3.4 CVD Equipment Corporation
 - 13.3.4.1 Company Overview
 - 13.3.4.2 Product Portfolio
 - 13.3.4.3 Financials
 - 13.3.5 Forge Nano Inc.
 - 13.3.5.1 Company Overview
 - 13.3.5.2 Product Portfolio
 - 13.3.6 Kurt J. Lesker Company
 - 13.3.6.1 Company Overview
 - 13.3.6.2 Product Portfolio
 - 13.3.7 Lam Research Corporation
 - 13.3.7.1 Company Overview
 - 13.3.7.2 Product Portfolio
 - 13.3.7.3 Financials
 - 13.3.7.4 SWOT Analysis
 - 13.3.8 Oxford Instruments plc
 - 13.3.8.1 Company Overview
 - 13.3.8.2 Product Portfolio
 - 13.3.8.3 Financials
 - 13.3.8.4 SWOT Analysis
 - 13.3.9 Picosun Oy (Applied Materials Inc.)
 - 13.3.9.1 Company Overview
 - 13.3.9.2 Product Portfolio
 - 13.3.10 SENTECH Instruments GmbH
 - 13.3.10.1 Company Overview

- 13.3.10.2 Product Portfolio
- 13.3.11 Veeco Instruments Inc.
 - 13.3.11.1 Company Overview
 - 13.3.11.2 Product Portfolio
 - 13.3.11.3 Financials
- 13.3.12 Wonik IPS Co. Ltd.
 - 13.3.12.1 Company Overview
 - 13.3.12.2 Product Portfolio
 - 13.3.12.3 Financials
- 13.3.13 Tokyo Electron Limited
 - 13.3.13.1 Company Overview
 - 13.3.13.2 Product Portfolio
 - 13.3.13.3 Financials
 - 13.3.13.4 SWOT Analysis

List Of Tables

LIST OF TABLES

Table 1: Global: Atomic Layer Deposition Equipment Market: Key Industry Highlights, 2023 and 2032

Table 2: Global: Atomic Layer Deposition Equipment Market Forecast: Breakup by Product (in Million US\$), 2024-2032

Table 3: Global: Atomic Layer Deposition Equipment Market Forecast: Breakup by Application (in Million US\$), 2024-2032

Table 4: Global: Atomic Layer Deposition Equipment Market Forecast: Breakup by Region (in Million US\$), 2024-2032

Table 5: Global: Atomic Layer Deposition Equipment Market: Competitive Structure

Table 6: Global: Atomic Layer Deposition Equipment Market: Key Players

List Of Figures

LIST OF FIGURES

Figure 1: Global: Atomic Layer Deposition Equipment Market: Major Drivers and Challenges

Figure 2: Global: Atomic Layer Deposition Equipment Market: Sales Value (in Billion US\$), 2018-2023

Figure 3: Global: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Billion US\$), 2024-2032

Figure 4: Global: Atomic Layer Deposition Equipment Market: Breakup by Product (in %), 2023

Figure 5: Global: Atomic Layer Deposition Equipment Market: Breakup by Application (in %), 2023

Figure 6: Global: Atomic Layer Deposition Equipment Market: Breakup by Region (in %), 2023

Figure 7: Global: Atomic Layer Deposition Equipment (Metal ALD) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 8: Global: Atomic Layer Deposition Equipment (Metal ALD) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 9: Global: Atomic Layer Deposition Equipment (Aluminum Oxide ALD) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 10: Global: Atomic Layer Deposition Equipment (Aluminum Oxide ALD) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 11: Global: Atomic Layer Deposition Equipment (Plasma Enhanced ALD) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 12: Global: Atomic Layer Deposition Equipment (Plasma Enhanced ALD) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 13: Global: Atomic Layer Deposition Equipment (Catalytic ALD) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 14: Global: Atomic Layer Deposition Equipment (Catalytic ALD) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 15: Global: Atomic Layer Deposition Equipment (Other Products) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 16: Global: Atomic Layer Deposition Equipment (Other Products) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 17: Global: Atomic Layer Deposition Equipment (Semiconductors) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 18: Global: Atomic Layer Deposition Equipment (Semiconductors) Market

Forecast: Sales Value (in Million US\$), 2024-2032

Figure 19: Global: Atomic Layer Deposition Equipment (Solar Devices) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 20: Global: Atomic Layer Deposition Equipment (Solar Devices) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 21: Global: Atomic Layer Deposition Equipment (Electronics) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 22: Global: Atomic Layer Deposition Equipment (Electronics) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 23: Global: Atomic Layer Deposition Equipment (Medical Equipment) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 24: Global: Atomic Layer Deposition Equipment (Medical Equipment) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 25: Global: Atomic Layer Deposition Equipment (Other Applications) Market: Sales Value (in Million US\$), 2018 & 2023

Figure 26: Global: Atomic Layer Deposition Equipment (Other Applications) Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 27: North America: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 28: North America: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 29: United States: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 30: United States: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 31: Canada: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 32: Canada: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 33: Asia-Pacific: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 34: Asia-Pacific: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 35: China: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 36: China: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 37: Japan: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 38: Japan: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 39: India: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 40: India: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 41: South Korea: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 42: South Korea: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 43: Australia: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 44: Australia: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 45: Indonesia: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 46: Indonesia: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 47: Others: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 48: Others: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 49: Europe: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 50: Europe: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 51: Germany: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 52: Germany: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 53: France: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 54: France: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 55: United Kingdom: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 56: United Kingdom: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 57: Italy: Atomic Layer Deposition Equipment Market: Sales Value (in Million

US\$), 2018 & 2023

Figure 58: Italy: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 59: Spain: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 60: Spain: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 61: Russia: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 62: Russia: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 63: Others: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 64: Others: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 65: Latin America: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 66: Latin America: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 67: Brazil: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 68: Brazil: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 69: Mexico: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 70: Mexico: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 71: Others: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 72: Others: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 73: Middle East and Africa: Atomic Layer Deposition Equipment Market: Sales Value (in Million US\$), 2018 & 2023

Figure 74: Middle East and Africa: Atomic Layer Deposition Equipment Market: Breakup by Country (in %), 2023

Figure 75: Middle East and Africa: Atomic Layer Deposition Equipment Market Forecast: Sales Value (in Million US\$), 2024-2032

Figure 76: Global: Atomic Layer Deposition Equipment Industry: SWOT Analysis

Figure 77: Global: Atomic Layer Deposition Equipment Industry: Value Chain Analysis

Figure 78: Global: Atomic Layer Deposition Equipment Industry: Porter's Five Forces Analysis

I would like to order

Product name: Atomic Layer Deposition Equipment Market Report by Product (Metal ALD, Aluminum Oxide ALD, Plasma Enhanced ALD, Catalytic ALD, and Others), Application (Semiconductors, Solar Devices, Electronics, Medical Equipment, and Others), and Region 2024-2032

Product link: <https://marketpublishers.com/r/AA5352256424EN.html>

Price: US\$ 3,899.00 (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/AA5352256424EN.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