

# Global Semiconductor Gas Sensors Market – Sensing Materials and Applications

<https://marketpublishers.com/r/GF959FF72146EN.html>

Date: November 2022

Pages: 302

Price: US\$ 4,500.00 (Single User License)

ID: GF959FF72146EN

## Abstracts

### REPORT SYNOPSIS

The use of Semiconductor Gas Sensors has gained popularity for detecting flammable, toxic or explosive gases at low concentrations in a range of industrial and other settings, as well as for monitoring environmental pollution. While the properties of any sensing material, such as high sensitivity, rapid response/recovery and good selectivity, play a crucial role in determining their scope of operation, it is a challenging prospect to develop cost-effective and reliable sensing devices that can detect gases, particularly at room temperature.

Safety & Security applications account for the largest share of the global demand for Semiconductor Gas Sensors, which is estimated to account for 23.4% share in 2022. Overall global market for Semiconductor Gas Sensors is estimated to reach US\$1.1 billion in 2022.

### Research Findings & Coverage

This global market research report on Semiconductor Gas Sensors analyzes the market with respect to sensing material types/sub-types and applications

Semiconductor Gas Sensors market size is estimated/projected in this report by sensing material type/sub-type and by application across all major countries

Future of Chemoresistive-Based Heterostructure Gas Sensors Bright

Series of Studies on Tin Oxide Result in Enhancing Gas Sensing Performance

Copper Oxide Nanomaterial-Based Gas Sensors Gaining Wider Adoption

SnO<sub>2</sub>-Based Sensor Technology Advanced for Detecting VOCs

Key business trends focusing on product innovations/developments, M&As, JVs and other recent industry developments

Major companies profiled – 37

The industry guide includes the contact details for 55 companies

## **PRODUCT OUTLINE**

The market for Semiconductor Gas Sensors market studied in this report by sensing material types/sub-types used comprise:

N2D Materials

Carbon Nanotubes

Conducting Polymers

Metal Oxide (MO<sub>x</sub>) Semiconductors

The report analyzes the market for the following applications Semiconductor Gas Sensors:

Air Quality & Environmental Monitoring

Automotive

Electronic Nose

Industrial

Medical & Healthcare

## Safety & Security

### Analysis Period, Units and Growth Rates

The report reviews, analyzes and projects the global Semiconductor Gas Sensors market for the period 2018-2027 in terms of value in US\$; and the compound annual growth rates (CAGRs) projected from 2022 through 2027.

### Geographic Coverage

North America (The United States and Mexico)

Europe (France, Germany, Italy, the United Kingdom and Rest of Europe)

Asia-Pacific (China, India, Japan, South Korea and Rest of Asia-Pacific)

South America (Argentina, Brazil and Rest of South America)

Middle East & Africa

## Contents

### **PART A: GLOBAL MARKET PERSPECTIVE**

#### **1. INTRODUCTION**

##### 1.1 Product Outline

1.1.1 Primary Causes of Atmospheric Pollution

1.1.2 The Rationale Behind Using Gas Sensors

1.1.3 Semiconductor Gas Sensors: A Brief Overview

1.1.3.1 Semiconductor Sensing Materials

1.1.3.1.1 Some History & Something Current

1.1.3.1.2 Metal Oxide Semiconductors

1.1.3.1.2.1 Tin Oxide (SnO<sub>2</sub>)

1.1.3.1.2.2 Zinc Oxide (ZnO)

1.1.3.1.2.3 Copper Oxide (CuO)

1.1.3.1.2.4 Nickel Oxide (NiO)

1.1.3.1.2.5 Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>)

1.1.3.1.2.6 Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

1.1.3.1.2.7 Heterostructures

1.1.3.1.3 Conducting Polymers

1.1.3.1.4 Carbon Nanotubes

1.1.3.1.5 2D Materials

1.1.3.2 What the Future Holds

1.1.3.3 Fabrication Methods of Semiconductor Gas Sensors

1.1.3.4 Components and Design of Sensor Devices

1.1.3.4.1 Signal Conditioning and Interfaces for Gas Sensors

1.1.3.4.1.1 Hybrid

1.1.3.4.1.2 Monolithic

1.1.3.4.2 Circuitry for Driving, Sensing and Control

1.1.3.4.2.1 Heater Driver

1.1.3.4.2.2 Temperature Sensor

1.1.3.4.2.3 Controller

1.1.3.4.3 Measuring Sensing Material and Readout Interface

#### **2. SEMICONDUCTOR GAS SENSORS APPLICATIONS - A MARKET SNAPSHOT**

2.1 Air Quality & Environmental Monitoring

2.2 Automotive

- 2.3 Electronic Nose (e-Nose or eNose)
- 2.4 Industrial
- 2.5 Medical & Healthcare
- 2.6 Safety & Security

### **3. KEY MARKET TRENDS**

- 3.1 Future of Chemoresistive-Based Heterostructure Gas Sensors Bright
- 3.2 Series of Studies on Tin Oxide Result in Enhancing Gas Sensing Performance
- 3.3 Copper Oxide Nanomaterial-Based Gas Sensors Gaining Wider Adoption
- 3.4 SnO<sub>2</sub>-Based Sensor Technology Advanced for Detecting VOCs

### **4. KEY GLOBAL PLAYERS**

- Aeroqual (New Zealand)
- Alphasense Sensors (United Kingdom)
- Angst + Pfister AG (Switzerland)
- Carel Industries SpA (Italy)
- Cubic Sensor and Instrument Co Ltd (China)
- Dracal Technologies, Inc. (Canada)
- E+E Elektronik Ges.M.B.H (Austria)
- Edinburgh Sensors Ltd (United Kingdom)
- Figaro Engineering, Inc. (Japan)
- Gas Sensing Solutions Ltd (United Kingdom)
- Honeywell Analytics, Inc. (Industrial Division) (United States)
- Invest Electronics Ltd (Bulgaria)
- Ion Science Ltd (United Kingdom)
- Micro-Hybrid Electronic GmbH (Germany)
- MSA Safety, Inc, (United States)
- Nissha FIS, Inc. (Japan)
- OGAM Technology Co Ltd (South Korea)
- Riken Keiki Co Ltd (Japan)
- Seitron S.p.A. (Italy)
- Sensidyne LP (United States)
- Sensirion AG (Switzerland)
- SGX Sensortech (Switzerland)
- Shenzhen Daweilai Sensing Technology Development Co Ltd (China)
- Siemens AG (Germany)
- smartGAS Mikrosensorik GmbH (Germany)

Teledyne API (United States)

## **5. KEY BUSINESS & PRODUCT TRENDS**

## **6. GLOBAL MARKET OVERVIEW**

### 6.1 Global Semiconductor Gas Sensors Market Overview by Sensing Material

6.1.1 Global Metal Oxide (MOx) Semiconductor Gas Sensors Market Overview by Sub-Segment

6.1.2 Semiconductor Gas Sensors' Sensing Material Market Overview by Global Region

6.1.2.1 2D Materials

6.1.2.2 Carbon Nanotubes

6.1.2.3 Conducting Polymers

6.1.2.4 Metal Oxide (MOx) Semiconductors

6.1.2.4.1 Metal Oxide (MOx) Semiconductor Gas Sensors Sub-Type Market Overview by Global Region

6.1.2.4.1.1 Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>)

6.1.2.4.1.2 Copper Oxide (CuO)

6.1.2.4.1.3 Heterostructures

6.1.2.4.1.4 Nickel Oxide (NiO)

6.1.2.4.1.5 Tin Oxide (SnO<sub>2</sub>)

6.1.2.4.1.6 Zinc Oxide (ZnO)

6.1.2.4.1.7 Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

### 6.2 Global Semiconductor Gas Sensors Market Overview by Application

6.2.1 Semiconductor Gas Sensors Application Market Overview by Global Region

6.2.1.1 Air Quality & Environmental Monitoring

6.2.1.2 Automotive

6.2.1.3 Electronic Nose (eNose or e-Nose)

6.2.1.4 Industrial

6.2.1.5 Medical & Healthcare

6.2.1.6 Safety & Security

## **PART B: REGIONAL MARKET PERSPECTIVE**

### **REGIONAL MARKET OVERVIEW**

## **7. NORTH AMERICA**

7.1 North American Semiconductor Gas Sensors Market Overview by Geographic Region

7.2 North American Semiconductor Gas Sensors Market Overview by Sensing Material

7.2.1 North American Metal Oxide (MOx) Semiconductor Gas Sensors Market Overview by Sub-Segment

7.3 North American Semiconductor Gas Sensors Market Overview by Application

7.4 Major Market Players

Building Automation Products, Inc. (BAPI) (United States)

Dracal Technologies, Inc. (Canada)

ESP Safety, Inc (United States)

Honeywell Analytics, Inc. (Industrial Division) (United States)

MSA Safety, Inc, (United States)

Sensidyne LP (United States)

Teledyne API (United States)

7.5 Country-wise Analysis of North American Semiconductor Gas Sensors Market

7.5.1 The United States

7.5.1.1 United States' Semiconductor Gas Sensors Market Overview by Sensing Material

7.5.1.1.1 United States' Metal Oxide (MOx) Semiconductor Gas Sensors Market Overview by Sub-Segment

7.5.1.2 United States' Semiconductor Gas Sensors Market Overview by Application

7.5.2 Canada

7.5.2.1 Canadian Semiconductor Gas Sensors Market Overview by Sensing Material

7.5.2.1.1 Canadian Metal Oxide (MOx) Semiconductor Gas Sensors Market Overview by Sub-Segment

7.5.2.2 Canadian Semiconductor Gas Sensors Market Overview by Application

7.5.3 Mexico

7.5.3.1 Mexican Semiconductor Gas Sensors Market Overview by Sensing Material

7.5.3.1.1 Mexican Metal Oxide (MOx) Semiconductor Gas Sensors Market Overview by Sub-Segment

7.5.3.2 Mexican Semiconductor Gas Sensors Market Overview by Application

## **8. EUROPE**

8.1 European Semiconductor Gas Sensors Market Overview by Geographic Region

8.2 European Semiconductor Gas Sensors Market Overview by Sensing Material

8.2.1 European Metal Oxide (MOx) Semiconductor Gas Sensors Market Overview by Sub-Segment

8.3 European Semiconductor Gas Sensors Market Overview by Application

## 8.4 Major Market Players

Alphasense Sensors (United Kingdom)  
Angst + Pfister AG (Switzerland)  
Cambridge Sensortech Limited (United Kingdom)  
Carel Industries SpA (Italy)  
E+E Elektronik Ges.M.B.H (Austria)  
Edinburgh Sensors Ltd (United Kingdom)  
Gas Sensing Solutions Ltd (United Kingdom)  
Invest Electronics Ltd (Bulgaria)  
Ion Science Ltd (United Kingdom)  
Micro-Hybrid Electronic Gmbh (Germany)  
Nanoz (France)  
Seitron S.p.A. (Italy)  
Sensirion AG (Switzerland)  
SGX Sensortech (Switzerland)  
Siemens AG (Germany)  
smartGAS Mikrosensorik GmbH (Germany)

## 8.5 Country-wise Analysis of European Semiconductor Gas Sensors Market

### 8.5.1 France

#### 8.5.1.1 French Semiconductor Gas Sensors Market Overview by Sensing Material

8.5.1.1.1 French Metal Oxide (MOx) Semiconductor Gas Sensors Market Overview  
by Sub-Segment

#### 8.5.1.2 French Semiconductor Gas Sensors Market Overview by Application

### 8.5.2 Germany

#### 8.5.2.1 German Semiconductor Gas Sensors Market Overview by Sensing Material

8.5.2.1.1 German Metal Oxide (MOx) Semiconductor Gas Sensors Market Overview  
by Sub-Segment

#### 8.5.2.2 German Semiconductor Gas Sensors Market Overview by Application

### 8.5.3 Italy

#### 8.5.3.1 Italian Semiconductor Gas Sensors Market Overview by Sensing Material

8.5.3.1.1 Italian Metal Oxide (MOx) Semiconductor Gas Sensors Market Overview  
by Sub-Segment

#### 8.5.3.2 Italian Semiconductor Gas Sensors Market Overview by Application

### 8.5.4 The United Kingdom

8.5.4.1 United Kingdom Semiconductor Gas Sensors Market Overview by Sensing  
Material

8.5.4.1.1 United Kingdom Metal Oxide (MOx) Semiconductor Gas Sensors Market  
Overview by Sub-Segment

#### 8.5.4.2 United Kingdom Semiconductor Gas Sensors Market Overview by Application



### 8.5.5 Rest of Europe

#### 8.5.5.1 Rest of Europe Semiconductor Gas Sensors Market Overview by Sensing Material

##### 8.5.5.1.1 Rest of Europe Metal Oxide (MOx) Semiconductor Gas Sensors Market Overview by Sub-Segment

##### 8.5.5.2 Rest of Europe Semiconductor Gas Sensors Market Overview by Application

## 9. ASIA-PACIFIC

### 9.1 Asia-Pacific Semiconductor Gas Sensors Market Overview by Geographic Region

### 9.2 Asia-Pacific Semiconductor Gas Sensors Market Overview by Sensing Material

#### 9.2.1 Asia-Pacific Metal Oxide (MOx) Semiconductor Gas Sensors Market Overview by Sub-Segment

### 9.3 Asia-Pacific Semiconductor Gas Sensors Market Overview by Application

### 9.4 Major Market Players

Aeroqual (New Zealand)

Chemtrols Industries Pvt Ltd (India)

Cubic Sensor and Instrument Co Ltd (China)

Hubei Cubic-Ruiyi Instrument Co Ltd (China)

Figaro Engineering, Inc. (Japan)

Foshan Chuandong Magnetolectric Co Ltd (China)

Hubei Cubic-Ruiyi Instrument Co Ltd (China)

Macro Technology Instruments Co Ltd (Taiwan)

Nissha FIS, Inc. (Japan)

OGAM Technology Co Ltd (South Korea)

Riken Keiki Co Ltd (Japan)

Shanghai Boqu Instrument Co Ltd (China)

Shenzhen Daweilai Sensing Technology Development Co Ltd (China)

Zhengzhou Winsen Electronics Technology Co Ltd (China)

### 9.5 Country-wise Analysis of Asia-Pacific Semiconductor Gas Sensors Market

#### 9.5.1 China

##### 9.5.1.1 Chinese Semiconductor Gas Sensors Market Overview by Sensing Material

##### 9.5.1.1.1 Chinese Metal Oxide (MOx) Semiconductor Gas Sensors Market Overview by Sub-Segment

##### 9.5.1.2 Chinese Semiconductor Gas Sensors Market Overview by Application

#### 9.5.2 India

##### 9.5.2.1 Indian Semiconductor Gas Sensors Market Overview by Sensing Material

##### 9.5.2.1.1 Indian Metal Oxide (MOx) Semiconductor Gas Sensors Market Overview by Sub-Segment

9.5.2.2 Indian Semiconductor Gas Sensors Market Overview by Application

9.5.3 Japan

9.5.3.1 Japanese Semiconductor Gas Sensors Market Overview by Sensing Material

9.5.3.1.1 Japanese Metal Oxide (MOx) Semiconductor Gas Sensors Market  
Overview by Sub-Segment

9.5.3.2 Japanese Semiconductor Gas Sensors Market Overview by Application

9.5.4 South Korea

9.5.4.1 South Korean Semiconductor Gas Sensors Market Overview by Sensing  
Material

9.5.4.1.1 South Korean Metal Oxide (MOx) Semiconductor Gas Sensors Market  
Overview by Sub-Segment

9.5.4.2 South Korean Semiconductor Gas Sensors Market Overview by Application

9.5.5 Rest of Asia-Pacific

9.5.5.1 Rest of Asia-Pacific Semiconductor Gas Sensors Market Overview by  
Sensing Material

9.5.5.1.1 Rest of Asia-Pacific Metal Oxide (MOx) Semiconductor Gas Sensors  
Market Overview by Sub-Segment

9.5.5.2 Rest of Asia-Pacific Semiconductor Gas Sensors Market Overview by  
Application

## **10. SOUTH AMERICA**

10.1 South American Semiconductor Gas Sensors Market Overview by Geographic  
Region

10.2 South American Semiconductor Gas Sensors Market Overview by Sensing  
Material

10.2.1 South American Metal Oxide (MOx) Semiconductor Gas Sensors Market  
Overview by Sub-Segment

10.3 South American Semiconductor Gas Sensors Market Overview by Application

10.4 Country-wise Analysis of South American Semiconductor Gas Sensors Market

10.4.1 Argentina

10.4.1.1 Argentine Semiconductor Gas Sensors Market Overview by Sensing  
Material

10.4.1.1.1 Argentine Metal Oxide (MOx) Semiconductor Gas Sensors Market  
Overview by Sub-Segment

10.4.1.2 Argentine Semiconductor Gas Sensors Market Overview by Application

10.4.2 Brazil

10.4.2.1 Brazilian Semiconductor Gas Sensors Market Overview by Sensing Material

10.4.2.1.1 Brazilian Metal Oxide (MOx) Semiconductor Gas Sensors Market

## Overview by Sub-Segment

10.4.2.2 Brazilian Semiconductor Gas Sensors Market Overview by Application

10.4.3 Rest of South America

10.4.3.1 Rest of South American Semiconductor Gas Sensors Market Overview by Sensing Material

10.4.3.1.1 Rest of South American Metal Oxide (MOx) Semiconductor Gas Sensors Market Overview by Sub-Segment

10.4.3.2 Rest of South American Semiconductor Gas Sensors Market Overview by Application

## **11. REST OF WORLD**

11.1 Rest of World Semiconductor Gas Sensors Market Overview by Sensing Material

11.1.1 Rest of World Metal Oxide (MOx) Semiconductor Gas Sensors Market Overview by Sub-Segment

11.2 Rest of World Semiconductor Gas Sensors Market Overview by Application

## **PART C: GUIDE TO THE INDUSTRY**

**1. NORTH AMERICA**

**2. EUROPE**

**3. ASIA-PACIFIC**

## **PART D: ANNEXURE**

**1. RESEARCH METHODOLOGY**

**2. FEEDBACK**

## **CHARTS & GRAPHS**

### **PART A: GLOBAL MARKET PERSPECTIVE**

Chart 1: Global Semiconductor Gas Sensors Market (2019, 2022 & 2027) by Geographic Region

Chart 2: Global Semiconductor Gas Sensors Market (2019, 2022 & 2027) by Sensing Material

Chart 3: Global Semiconductor Gas Sensors Market (2019, 2022 & 2027) by Application

Chart 4: Trending of Semiconductor Gas Sensors in Air Quality & Environmental Monitoring Applications (2022 & 2027) by Geographic Region

Chart 5: Trending of Semiconductor Gas Sensors in Automotive Applications (2022 & 2027) by Geographic Region

Chart 6: Trending of Semiconductor Gas Sensors in Electronic Nose (e-Nose or eNose) Applications (2022 & 2027) by Geographic Region

Chart 7: Trending of Semiconductor Gas Sensors in Industrial Applications (2022 & 2027) by Geographic Region

Chart 8: Trending of Semiconductor Gas Sensors in Medical & Healthcare (2022 & 2027) by Geographic Region

Chart 9: Trending of Semiconductor Gas Sensors in Safety & Security (2022 & 2027) by Geographic Region

Chart 10: Global Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 11: Global Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 12: Glance at 2019, 2022 and 2027 Global Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 13: Global Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 14: Glance at 2019, 2022 and 2027 Global Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 15: Global 2D Materials-Based Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 16: Glance at 2019, 2022 and 2027 Global 2D Materials-Based Semiconductor Gas Sensors Market Share (%) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

Chart 17: Global Carbon Nanotubes-Based Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 18: Glance at 2019, 2022 and 2027 Carbon Nanotubes-Based Global Semiconductor Gas Sensors Market Share (%) by Geographic Region – North America,

Europe, Asia-Pacific, South America and Rest of World

Chart 19: Global Conducting Polymers-Based Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 20: Glance at 2019, 2022 and 2027 of Conducting Polymers-Based Global Semiconductor Gas Sensors Market Share (%) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

Chart 21: Global Metal Oxide (MOx)-Based Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 22: Glance at 2019, 2022 and 2027 of Global Metal Oxide (MOx)-Based Semiconductor Gas Sensors Market Share (%) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

Chart 23: Global Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>)-Based Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 24: Glance at 2019, 2022 and 2027 Global Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>)-Based Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

Chart 25: Global Copper Oxide (CuO)-Based Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 26: Glance at 2019, 2022 and 2027 of Global Copper Oxide (CuO)-Based Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

Chart 27: Global Heterostructures-Based Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 28: Glance at 2019, 2022 and 2027 of Global Heterostructures-Based Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

Chart 29: Global Nickel Oxide (NiO)-Based Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 30: Glance at 2019, 2022 and 2027 of Global Nickel Oxide (NiO)-Based Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

Chart 31: Global Tin Oxide (SnO<sub>2</sub>)-Based Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – North America, Europe,



Asia-Pacific, South America and Rest of World in USD Million

Chart 32: Glance at 2019, 2022 and 2027 of Global Tin Oxide (SnO<sub>2</sub>)-Based Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

Chart 33: Global Zinc Oxide (ZnO)-Based Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 34: Glance at 2019, 2022 and 2027 of Global Zinc Oxide (ZnO)-Based Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

Chart 35: Global Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)-Based Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 36: Glance at 2019, 2022 and 2027 of Global Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)-Based Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

Chart 37: Global Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 38: Glance at 2019, 2022 and 2027 Global Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

Chart 39: Global Semiconductor Gas Sensors Market Analysis (2018-2027) for Air Quality & Environmental Monitoring Applications by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 40: Glance at 2019, 2022 and 2027 Global Semiconductor Gas Sensors Market Share (%) for Air Quality & Environmental Monitoring Applications by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

Chart 41: Global Semiconductor Gas Sensors Market Analysis (2018-2027) for Automotive Applications by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 42: Glance at 2019, 2022 and 2027 Global Semiconductor Gas Sensors Market Share (%) for Automotive Applications by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

Chart 43: Global Semiconductor Gas Sensors Market Analysis (2018-2027) for Electronic Nose Applications by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 44: Glance at 2019, 2022 and 2027 Global Semiconductor Gas Sensors Market

Share (%) for Electronic Nose Applications by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

Chart 45: Global Semiconductor Gas Sensors Market Analysis (2018-2027) for Industrial Applications by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 46: Glance at 2019, 2022 and 2027 Global Semiconductor Gas Sensors Market Share (%) for Industrial Applications by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

Chart 47: Global Semiconductor Gas Sensors Market Analysis (2018-2027) for Medical & Healthcare Applications by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 48: Glance at 2019, 2022 and 2027 Global Semiconductor Gas Sensors Market Share (%) for Medical & Healthcare Applications by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

Chart 49: Global Semiconductor Gas Sensors Market Analysis (2018-2027) for Safety & Security Applications by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 50: Glance at 2019, 2022 and 2027 Global Semiconductor Gas Sensors Market Share (%) for Safety & Security Applications by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

## PART B: REGIONAL MARKET PERSPECTIVE

Chart 51: Global Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World in USD Million

Chart 52: Glance at 2019, 2022 and 2027 Global Semiconductor Gas Sensors Market Share (%) by Geographic Region – North America, Europe, Asia-Pacific, South America and Rest of World

## REGIONAL MARKET OVERVIEW

### NORTH AMERICA

Chart 53: North American Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 54: North American Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – United States, Canada and Mexico in USD Million

Chart 55: Glance at 2019, 2022 and 2027 North American Semiconductor Gas Sensors Market Share (%) by Geographic Region – United States, Canada and Mexico

Chart 56: North American Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 57: Glance at 2019, 2022 and 2027 North American Semiconductor Gas Sensors

Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 58: North American Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 59: Glance at 2019, 2022 and 2027 North American Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 60: North American Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 61: Glance at 2019, 2022 and 2027 North American Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

The United States

Chart 62: United States' Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 63: United States' Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 64: Glance at 2019, 2022 and 2027 United States' Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 65: United States' Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 66: Glance at 2019, 2022 and 2027 United States' Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 67: United States' Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 68: Glance at 2019, 2022 and 2027 United States' Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security



## Canada

Chart 69: Canadian Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 70: Canadian Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 71: Glance at 2019, 2022 and 2027 Canadian Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 72: Canadian Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 73: Glance at 2019, 2022 and 2027 Canadian Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 74: Canadian Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 75: Glance at 2019, 2022 and 2027 Canadian Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

## Mexico

Chart 76: Mexican Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 77: Mexican Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 78: Glance at 2019, 2022 and 2027 Mexican Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 79: Mexican Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 80: Glance at 2019, 2022 and 2027 Mexican Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO)

and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 81: Mexican Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 82: Glance at 2019, 2022 and 2027 Mexican Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

## EUROPE

Chart 83: European Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 84: European Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – France, Germany, Italy, United Kingdom and Rest of Europe in USD Million

Chart 85: Glance at 2019, 2022 and 2027 European Semiconductor Gas Sensors Market Share (%) by Geographic Region – France, Germany, Italy, United Kingdom and Rest of Europe

Chart 86: European Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 87: Glance at 2019, 2022 and 2027 European Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 88: European Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 89: Glance at 2019, 2022 and 2027 European Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 90: European Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 91: Glance at 2019, 2022 and 2027 European Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

## France

Chart 92: French Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 93: French Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 94: Glance at 2019, 2022 and 2027 French Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 95: French Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 96: Glance at 2019, 2022 and 2027 French Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 97: French Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 98: Glance at 2019, 2022 and 2027 French Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

Germany

Chart 99: German Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 100: German Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 101: Glance at 2019, 2022 and 2027 German Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 102: German Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 103: Glance at 2019, 2022 and 2027 German Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 104: German Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose,

Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 105: Glance at 2019, 2022 and 2027 German Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

Italy

Chart 106: Italian Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 107: Italian Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 108: Glance at 2019, 2022 and 2027 Italian Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 109: Italian Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 110: Glance at 2019, 2022 and 2027 Italian Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 111: Italian Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 112: Glance at 2019, 2022 and 2027 Italian Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

The United Kingdom

Chart 113: United Kingdom Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 114: United Kingdom Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 115: Glance at 2019, 2022 and 2027 United Kingdom Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 116: United Kingdom Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and



Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 117: Glance at 2019, 2022 and 2027 United Kingdom Metal Oxide (MOx)

Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 118: United Kingdom Semiconductor Gas Sensors Market Analysis (2018-2027)

by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 119: Glance at 2019, 2022 and 2027 United Kingdom Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security Rest of Europe

Chart 120: Rest of Europe Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 121: Rest of Europe Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 122: Glance at 2019, 2022 and 2027 Rest of Europe Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 123: Rest of Europe Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 124: Glance at 2019, 2022 and 2027 Rest of Europe Metal Oxide (MOx)

Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 125: Rest of Europe Semiconductor Gas Sensors Market Analysis (2018-2027)

by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 126: Glance at 2019, 2022 and 2027 Rest of Europe Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

ASIA-PACIFIC

Chart 127: Asia-Pacific Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 128: Asia-Pacific Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – China, India, Japan, South Korea and Rest of Asia-Pacific in USD

Million

Chart 129: Glance at 2019, 2022 and 2027 Asia-Pacific Semiconductor Gas Sensors Market Share (%) by Geographic Region – China, India, Japan, South Korea and Rest of Asia-Pacific

Chart 130: Asia-Pacific Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 131: Glance at 2019, 2022 and 2027 Asia-Pacific Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 132: Asia-Pacific Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 133: Glance at 2019, 2022 and 2027 Asia-Pacific Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 134: Asia-Pacific Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 135: Glance at 2019, 2022 and 2027 Asia-Pacific Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

China

Chart 136: Chinese Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 137: Chinese Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 138: Glance at 2019, 2022 and 2027 Chinese Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 139: Chinese Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 140: Glance at 2019, 2022 and 2027 Chinese Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper

Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 141: Chinese Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 142: Glance at 2019, 2022 and 2027 Chinese Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

India

Chart 143: Indian Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 144: Indian Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MO<sub>x</sub>) Semiconductors in USD Million

Chart 145: Glance at 2019, 2022 and 2027 Indian Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MO<sub>x</sub>) Semiconductors

Chart 146: Indian Metal Oxide (MO<sub>x</sub>) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 147: Glance at 2019, 2022 and 2027 Indian Metal Oxide (MO<sub>x</sub>) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 148: Indian Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 149: Glance at 2019, 2022 and 2027 Indian Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

Japan

Chart 150: Japanese Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 151: Japanese Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MO<sub>x</sub>) Semiconductors in USD Million

Chart 152: Glance at 2019, 2022 and 2027 Japanese Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting

## Polymers and Metal Oxide (MOx) Semiconductors

Chart 153: Japanese Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 154: Glance at 2019, 2022 and 2027 Japanese Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 155: Japanese Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 156: Glance at 2019, 2022 and 2027 Japanese Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

## South Korea

Chart 157: South Korean Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 158: South Korean Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 159: Glance at 2019, 2022 and 2027 South Korean Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 160: South Korean Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 161: Glance at 2019, 2022 and 2027 South Korean Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 162: South Korean Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 163: Glance at 2019, 2022 and 2027 South Korean Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

## Rest of Asia-Pacific



Chart 164: Rest of Asia-Pacific Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 165: Rest of Asia-Pacific Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 166: Glance at 2019, 2022 and 2027 Rest of Asia-Pacific Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 167: Rest of Asia-Pacific Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 168: Glance at 2019, 2022 and 2027 Rest of Asia-Pacific Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 169: Rest of Asia-Pacific Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 170: Glance at 2019, 2022 and 2027 Rest of Asia-Pacific Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

**SOUTH AMERICA**

Chart 171: South American Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 172: South American Semiconductor Gas Sensors Market Analysis (2018-2027) by Geographic Region – Argentina, Brazil and Rest of South America in USD Million

Chart 173: Glance at 2019, 2022 and 2027 South American Semiconductor Gas Sensors Market Share (%) by Geographic Region – Argentina, Brazil and Rest of South America

Chart 174: South American Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 175: Glance at 2019, 2022 and 2027 South American Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 176: South American Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and

Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 177: Glance at 2019, 2022 and 2027 South American Metal Oxide (MOx)

Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 178: South American Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 179: Glance at 2019, 2022 and 2027 South American Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security  
Argentina

Chart 180: Argentine Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 181: Argentine Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 182: Glance at 2019, 2022 and 2027 Argentine Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 183: Argentine Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 184: Glance at 2019, 2022 and 2027 Argentine Metal Oxide (MOx)

Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 185: Argentine Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 186: Glance at 2019, 2022 and 2027 Argentine Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

Brazil

Chart 187: Brazilian Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 188: Brazilian Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal

Oxide (MOx) Semiconductors in USD Million

Chart 189: Glance at 2019, 2022 and 2027 Brazilian Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 190: Brazilian Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 191: Glance at 2019, 2022 and 2027 Brazilian Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 192: Brazilian Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 193: Glance at 2019, 2022 and 2027 Brazilian Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

Rest of South America

Chart 194: Rest of South American Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 195: Rest of South American Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 196: Glance at 2019, 2022 and 2027 Rest of South American Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 197: Rest of South American Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>) in USD Million

Chart 198: Glance at 2019, 2022 and 2027 Rest of South American Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 199: Rest of South American Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 200: Glance at 2019, 2022 and 2027 Rest of South American Semiconductor Gas

Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security  
REST OF WORLD

Chart 201: Rest of World Semiconductor Gas Sensors Market Analysis (2018-2027) in USD Million

Chart 202: Rest of World Semiconductor Gas Sensors Market Analysis (2018-2027) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors in USD Million

Chart 203: Glance at 2019, 2022 and 2027 Rest of World Semiconductor Gas Sensors Market Share (%) by Sensing Material – 2D Materials, Carbon Nanotubes, Conducting Polymers and Metal Oxide (MOx) Semiconductors

Chart 204: Rest of World Metal Oxide (MOx) Semiconductor Gas Sensors Market Analysis (2018-2027) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 205: Glance at 2019, 2022 and 2027 Rest of World Metal Oxide (MOx) Semiconductor Gas Sensors Market Share (%) by Sub-Segment – Chromium Oxide (Cr<sub>2</sub>O<sub>3</sub>), Copper Oxide (CuO), Heterostructures, Nickel Oxide (NiO), Tin Oxide (SnO<sub>2</sub>), Zinc Oxide (ZnO) and Zinc Stannate (ZnSnO<sub>3</sub> & Zn<sub>2</sub>SnO<sub>4</sub>)

Chart 206: Rest of World Semiconductor Gas Sensors Market Analysis (2018-2027) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security in USD Million

Chart 207: Glance at 2019, 2022 and 2027 Rest of World Semiconductor Gas Sensors Market Share (%) by Application – Air Quality & Environmental Monitoring, Automotive, Electronic Nose, Industrial, Medical & Healthcare and Safety & Security

## I would like to order

Product name: Global Semiconductor Gas Sensors Market – Sensing Materials and Applications

Product link: <https://marketpublishers.com/r/GF959FF72146EN.html>

Price: US\$ 4,500.00 (Single User License / Electronic Delivery)

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

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/GF959FF72146EN.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