

# Global Thermoelectric Materials Market: Focus on Type (Bismuth Telluride, Lead Telluride, and Silicon Germanium) and Application (Healthcare, Automotive, Industrial, Electrical, and Electronics) – Analysis & Forecast, 2018-2023

https://marketpublishers.com/r/GFC12CF9337DEN.html

Date: November 2018

Pages: 201

Price: US\$ 5,000.00 (Single User License)

ID: GFC12CF9337DEN

# **Abstracts**

Hard copy option is available on any of the options above at an additional charge of \$500. Please email us at <a href="mailto:order@marketpublishers.com">order@marketpublishers.com</a> with your request.

Thermoelectric materials have been a topic of massive research and development since a long time, as they follow the principle of converting waste heat into usable electricity. Usage of this niche technology in various end-user industries such as automobiles, industrial, and healthcare might result in proper utilization of energy, which would eventually result in decreasing the demand for energy resources. Various environment regulations lead factories to cut down on their production limits due to excessive greenhouse gas emissions. Thermoelectric materials contribute in the reduction of greenhouse gas emissions which has become a major area of focus in the global scenario. Although at an emerging state, thermoelectric materials have been used in several pilot projects to test their feasibility and efficiency. Many companies such as Panasonic Corporation and Hitachi Ltd., among others are actively engaged in the research and development of thermoelectric materials given their high potential.

Bismuth telluride, lead telluride, and silicon germanium are some of the thermoelectric materials widely used in the end-user industries. Bismuth telluride is the traditionally used thermoelectric material owing to its features. It is an alloy made of bismuth and telluride. It could be found in various forms such as in pieces, powder, lump, ingots, and chunks, among others. It can be used as a thermoelectric material and utilized in power generation device or cooling modules such as refrigerator. It also finds its application in



topological insulators.

The global thermoelectric materials market is expected to grow at a CAGR of 8.49% and 9.09% between 2018 and 2023 in terms of value and volume, respectively.

The report is a compilation of different segments of the global thermoelectric materials market, including market breakdown by type, application, and geographical areas. Herein the revenue generated from the types (bismuth telluride, lead telluride, and silicon germanium), application (healthcare, automotive, industrial, electrical and electronics, and others), and geographies (North America, Europe, Asia-Pacific, and Rest-of-the-World) are tracked to calculate the overall market size both in terms of value (\$thousand) and volume (metric tons). While highlighting the key driving and restraining forces for this market, the report also provides a detailed summary of the global thermoelectric materials market. It also includes the key participants involved in the industry at the relevant sections.

Key questions answered in the report:

What was the size, in terms of value (\$thousand) and volume (metric tons), of the thermoelectric materials market in 2017, and what will be the growth rate during the forecast period 2018-2023?

What will be the market size of different types of thermoelectric materials (by value and volume) and their growth rate during the forecast period 2018-2023?

What will be the market size of different types of applications in the thermoelectric materials market (by value and volume) and their growth rate during the forecast period 2018-2023?

What will be the market size for different regions and countries in terms of value and volume in the thermoelectric materials market and their growth rate in the forecast period 2018-2023?

What are the major driving forces that tend to increase the demand for thermoelectric materials in various end-user industries during the forecast period?

What are the major challenges inhibiting the growth of the global thermoelectric materials market?



What is the competitive strength of key players in the global thermoelectric materials market by analyzing through market share analysis?

Who are the key players (along with their detailed analysis and profiles including their financials, company snapshots, key products and services, and SWOT analysis) in the market?

The report further includes a thorough analysis of the impact of the Porter's Five Forces to understand the overall attractiveness of the industry. The most commonly used strategy for developing a better hold on the market has been through business expansions. Moreover, the company profile section highlights significant information about the key companies involved along with their financial positions, key strategies, and developmental activities in recent years.

Further, the report includes an exhaustive analysis of the geographical split into North America, Europe, Asia-Pacific (APAC), and Rest-of-the-World. Each geography details the individual driving and restraining forces in addition to the key players from that region. This report is a meticulous compilation of research on more than 100 players in the global thermoelectric materials market and draws upon the insights from in-depth interviews with the key opinion leaders of more than 50 leading companies, market participants, and vendors. The report also profiles approximately 15 companies with their financial analysis, SWOT, and product portfolio.

The company profiles in the report include Hitachi Ltd., Panasonic Corporation, Norilsk Nickel, EVERREDtronics Ltd., Ferrotec (USA) Corporation., Jingyi Metal Material (Shanghai) Co., Ltd., KELK Ltd., Marlow Industries, Inc., P&N Technology (Xiamen) Co., Ltd., Reade International Corp., Sigma Aldrich Corporation, TECTEG MFR., TEGma AS, Thermonamic Electronics(Jiangxi) Corp., Ltd., and TOSHIBA MATERIALS CO., LTD.



# **Contents**

## **EXECUTIVE SUMMARY**

## 1 MARKET DYNAMICS

- 1.1 Drivers
  - 1.1.1 Improved Vehicle Fuel Efficiency Using Thermoelectric Modules
- 1.1.2 Increasing Awareness of Green Energy and Rising Awareness by Various Government Officials
- 1.1.3 Rapid Commercialization of Thermoelectric Generators in the Automobile Industry
- 1.2 Restraints
  - 1.2.1 High Production Cost of Thermoelectric Material
- 1.2.2 Inability to Produce High Power Electricity Output
- 1.3 Opportunities
- 1.3.1 Rise in the Demand for Thermoelectric Materials in Medical Devices

## **2 COMPETITIVE INSIGHTS**

- 2.1 Key Market Developments and Strategies
  - 2.1.1 Product Launches
  - 2.1.2 Others
- 2.2 Market Share Analysis

#### **3 INDUSTRY ANALYSIS**

- 3.1 Supply Chain Analysis
- 3.2 Industry Attractiveness
- 3.2.1 Threat of New Entrants
- 3.2.2 Bargaining Power of Buyers
- 3.2.3 Bargaining Power of Suppliers
- 3.2.4 Threat from Substitutes
- 3.2.5 Intensity of Competitive Rivalry
- 3.3 Opportunity Matrix Analysis
- 3.4 Country Share Analysis
- 3.5 Thermoelectric Phenomenon
  - 3.5.1 Seebeck Effect
  - 3.5.2 Peltier Effect



- 3.5.3 Thomson Effect
- 3.6 Thermoelectric Materials in the Research Phase
  - 3.6.1 Chalcogenides Materials
  - 3.6.2 Half Heusler Alloys
  - 3.6.3 Skutterudites
  - 3.6.4 Clathrates
  - 3.6.5 Antimony Telluride (Sb2Te3)

# 4 GLOBAL THERMOELECTRIC MATERIAL MARKET (BY TYPE), \$THOUSAND AND METRIC TONS, 2016-2023

- 4.1 Assumptions
- 4.2 Limitations
- 4.3 Market Overview
- 4.4 Bismuth Telluride (Bi2Te3)
- 4.5 Lead Telluride (PbTe)
- 4.6 Silicon Germanium (SiGe)

# 5 GLOBAL THERMOELECTRIC MATERIALS MARKET (BY APPLICATION), \$THOUSAND AND METRIC TONS, 2016-2023

- 5.1 Industrial
- 5.2 Automotive
- 5.3 Electrical & Electronics
- 5.4 Healthcare
- 5.5 Others

# 6 THERMOELECTRIC MATERIAL MARKET (BY REGION), \$THOUSAND AND METRIC TONS, 2016-2023

- 6.1 Asia-Pacific
  - 6.1.1 Asia-Pacific Thermoelectric Materials Market (by Type)
  - 6.1.2 Asia-Pacific Thermoelectric Materials Market (by Application)
  - 6.1.3 Asia-Pacific Thermoelectric Materials Market (by Country)
    - 6.1.3.1 China
      - 6.1.3.1.1 China Thermoelectric Materials Market (by Application)
    - 6.1.3.2 Japan
    - 6.1.3.2.1 Japan Thermoelectric Materials Market (by Application)
    - 6.1.3.3 South Korea



- 6.1.3.3.1 South Korea Thermoelectric Materials Market (by Application)
- 6.1.3.4 Rest-of-Asia-Pacific
  - 6.1.3.4.1 Rest-of-Asia-Pacific Thermoelectric Materials Market (by Application)
- 6.2 North America
  - 6.2.1 North America Thermoelectric Materials Market (by Type)
  - 6.2.2 North America Thermoelectric Materials Market (by Application)
  - 6.2.3 North America Thermoelectric Materials Market (by Country)
    - 6.2.3.1 The U.S.
    - 6.2.3.1.1 U.S. Thermoelectric Materials Market (by Application)
    - 6.2.3.2 Canada
      - 6.2.3.2.1 Canada Thermoelectric Materials Market (by Application)
    - 6.2.3.3 Mexico
      - 6.2.3.3.1 Mexico Thermoelectric Materials Market (by Application)
- 6.3 Europe
  - 6.3.1 Europe Thermoelectric Materials Market (by Type)
  - 6.3.2 Europe Thermoelectric Materials Market (by Application)
  - 6.3.3 Europe Thermoelectric Materials Market (by Country)
    - 6.3.3.1 Germany
    - 6.3.3.1.1 Germany Thermoelectric Materials Market (by Application)
    - 6.3.3.2 France
    - 6.3.3.2.1 France Thermoelectric Materials Market (by Application)
    - 6.3.3.3 The U.K.
    - 6.3.3.3.1 U.K. Thermoelectric Materials Market (by Application)
    - 6.3.3.4 Russia
    - 6.3.3.4.1 Russia Thermoelectric Materials Market (by Application)
    - 6.3.3.5 Rest-of-Europe
      - 6.3.3.5.1 Rest-of-Europe Thermoelectric Materials Market (by Application)
- 6.4 Rest-of-the-World
  - 6.4.1 Rest-of-the-World Thermoelectric Materials Market (by Type)
  - 6.4.2 Rest-of-the-World Thermoelectric Materials Market (by Application)
  - 6.4.3 Rest-of-the-World Thermoelectric Materials Market (by Country)
    - 6.4.3.1 The U.A.E.
    - 6.4.3.1.1 U.A.E. Thermoelectric Materials Market (by Application)
    - 6.4.3.2 Brazil
      - 6.4.3.2.1 Brazil Thermoelectric Materials Market (by Application)
    - 6.4.3.3 Others
      - 6.4.3.3.1 Others Thermoelectric Materials Market (by Application)

## **7 COMPANY PROFILE**



- 7.1 Overview
- 7.2 EVERREDtronics Ltd.
  - 7.2.1 Company Overview
  - 7.2.2 Product Portfolio Pertaining to Thermoelectric Materials Market
  - 7.2.3 Corporate Summary
  - 7.2.4 SWOT Analysis
- 7.3 Ferrotec (USA) Corporation.
  - 7.3.1 Company Overview
  - 7.3.2 Product Portfolio Pertaining to Thermoelectric Materials Market
  - 7.3.3 Corporate Summary
  - 7.3.4 SWOT Analysis
- 7.4 Hitachi Ltd.
  - 7.4.1 Company Overview
  - 7.4.2 Product Portfolio Pertaining to Thermoelectric Materials Market
  - 7.4.3 Financials
    - 7.4.3.1 Financial Summary
  - 7.4.4 SWOT Analysis
- 7.5 Jingyi Metal Material (Shanghai) Co., Ltd.
  - 7.5.1 Company Overview
  - 7.5.2 Product Portfolio Pertaining to Thermoelectric Materials Market
  - 7.5.3 Corporate Summary
  - 7.5.4 SWOT Analysis
- 7.6 KELK Ltd.
  - 7.6.1 Company Overview
  - 7.6.2 Product Portfolio Pertaining to Thermoelectric Materials Market
  - 7.6.3 Corporate Summary
  - 7.6.4 SWOT Analysis
- 7.7 Marlow Industries, Inc.
  - 7.7.1 Company Overview
  - 7.7.2 Product Portfolio Pertaining to Thermoelectric Materials Market
  - 7.7.3 Corporate Summary
  - 7.7.4 SWOT Analysis
- 7.8 Norilsk Nickel
  - 7.8.1 Company Overview
  - 7.8.2 Product Portfolio Pertaining to Thermoelectric Materials Market
  - 7.8.3 Financials
  - 7.8.3.1 Financial Summary
  - 7.8.4 SWOT Analysis



- 7.9 P&N Technology (Xiamen) Co., Ltd.
  - 7.9.1 Company Overview
  - 7.9.2 Product Portfolio Pertaining to Thermoelectric Materials Market
  - 7.9.3 Corporate Summary
  - 7.9.4 SWOT Analysis
- 7.10 Panasonic Corporation
  - 7.10.1 Company Overview
  - 7.10.2 Product Portfolio Pertaining to Thermoelectric Materials Market
  - 7.10.3 Financials
    - 7.10.3.1 Financial Summary
  - 7.10.4 SWOT Analysis
- 7.11 Reade International Corp.,
  - 7.11.1 Company Overview
  - 7.11.2 Product Portfolio Pertaining to Thermoelectric Materials Market
  - 7.11.3 Corporate Summary
  - 7.11.4 SWOT Analysis
- 7.12 Sigma Aldrich Corporation
  - 7.12.1 Company Overview
  - 7.12.2 Product Portfolio Pertaining to Thermoelectric Materials Market
  - 7.12.3 Corporate Summary
  - 7.12.4 SWOT Analysis
- 7.13 TECTEG MFR.
  - 7.13.1 Company Overview
  - 7.13.2 Product Portfolio Pertaining to Thermoelectric Materials Market
  - 7.13.3 Corporate Summary
  - 7.13.4 SWOT Analysis
- 7.14 TEGma AS
  - 7.14.1 Company Overview
  - 7.14.2 Product Portfolio Pertaining to Thermoelectric Materials Market
  - 7.14.3 Corporate Summary
  - 7.14.4 SWOT Analysis
- 7.15 Thermonamic Electronics(Jiangxi) Corp., Ltd.
  - 7.15.1 Company Overview
  - 7.15.2 Product Portfolio Pertaining to Thermoelectric Materials Market
  - 7.15.3 Corporate Summary
  - 7.15.4 SWOT Analysis
- 7.16 TOSHIBA MATERIALS CO., LTD.
  - 7.16.1 Company Overview
- 7.16.2 Product Portfolio Pertaining to Thermoelectric Materials Market



- 7.16.3 Corporate Summary
- 7.16.4 SWOT Analysis

## **8 REPORT SCOPE & METHODOLOGY**

- 8.1 Report Scope
- 8.2 Global Thermoelectric Materials Market Research Methodology
  - 8.2.1 Assumptions
  - 8.2.2 Limitations
  - 8.2.3 Primary Data Sources
  - 8.2.4 Secondary Data Sources
  - 8.2.5 Data Triangulation
  - 8.2.6 Market Estimation and Forecast



# **List Of Tables**

#### LIST OF TABLES

- Table 1 Global Thermoelectric Materials Market Snapshot, 2017 and 2023
- Table 1.1 Thermoelectric Materials with Cost
- Table 2.1 Product Launches (2015-2018)
- Table 2.2 Other Key Developments (2015-2018)
- Table 4.1 Global Thermoelectric Materials Market (by Type), Metric Tons, 2016-2023
- Table 4.2 Global Thermoelectric Materials Market (by Type), \$Thousand, 2016-2023
- Table 5.1 Global Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023
- Table 5.2 Global Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023
- Table 6.1 Global Thermoelectric Materials Market (by Region), Metric Tons, 2016-2023
- Table 6.2 Global Thermoelectric Materials Market (by Region), \$Thousand, 2016-2023
- Table 6.3 Asia-Pacific Thermoelectric Materials Market (by Type), Metric Tons,

2016-2023

- Table 6.4 Asia-Pacific Thermoelectric Materials Market (by Type), \$Thousand, 2016–2023
- Table 6.5 Asia-Pacific Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023
- Table 6.6 Asia-Pacific Thermoelectric Materials Market (by Application), \$Thousand, 2016–2023
- Table 6.7 Asia-Pacific Thermoelectric Materials Market (by Country), Metric Tons, 2016-2023
- Table 6.8 Asia-Pacific Thermoelectric Materials Market (by Country), \$Thousand, 2016-2023
- Table 6.9 List of Institutions based in China
- Table 6.10 List of Thermoelectric Module Producers
- Table 6.11 China Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023
- Table 6.12 China Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023
- Table 6.13 List of Thermoelectric Module Manufacturers
- Table 6.14 Japan Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023
- Table 6.15 Japan Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023



Table 6.16 South Korea Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023

Table 6.17 South Korea Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023

Table 6.18 Rest-of-Asia-Pacific Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023

Table 6.19 Rest-of-Asia-Pacific Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023

Table 6.20 North America Thermoelectric Materials Market (by Type), Metric Tons, 2016–2023

Table 6.21 North America Thermoelectric Materials Market (by Type), \$Thousand, 2016–2023

Table 6.22 North America Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023

Table 6.23 North America Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023

Table 6.24 North America Thermoelectric Materials Market (by Country), Metric Tons, 2016–2023

Table 6.25 North America Thermoelectric Materials Market (by Country), \$Thousand, 2016-2023

Table 6.26 List of Thermoelectric Module and Device Manufacturers

Table 6.27 U.S. Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023

Table 6.28 U.S. Thermoplastic Materials Market (by Application), \$Thousand, 2016-2023

Table 6.29 Canada Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023

Table 6.30 Canada Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023

Table 6.31 Mexico Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023

Table.6.32 Mexico Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023

Table 6.33 Projects Facilitating Research on Thermoelectric Material

Table 6.34 Europe Thermoelectric Materials Market (by Type), Metric Tons, 2016–2023

Table 6.35 Europe Thermoelectric Materials Market (by Type), \$Thousand, 2016–2023

Table 6.36 Europe Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023

Table 6.37 Europe Thermoelectric Materials Market (by Application), \$Thousand,



2016-2023

Table 6.38 Europe Thermoelectric Materials Market (by Country), Metric Tons, 2016-2023

Table 6.39 Europe Thermoelectric Materials Market (by Country), \$Thousand, 2016-2023

Table 6.40 Germany Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023

Table 6.41 Germany Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023

Table 6.42 France Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023

Table 6.43 France Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023

Table 6.44 U.K. Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023

Table 6.45 U.K. Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023

Table 6.46 Russia Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023

Table 6.47 Russia Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023

Table 6.48 Rest-of-Europe Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023

Table 6.49 Rest-of-Europe Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023

Table 6.50 Rest-of-the-World Thermoelectric Materials Market (by Type), Metric Tons, 2016–2023

Table 6.51 Rest-of-the-World Thermoelectric Materials Market (by Type), \$Thousand, 2016–2023

Table 6.52 Rest-of-the-World Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023

Table 6.53 Rest-of-the-World Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023

Table 6.54 Rest-of-the-World Thermoelectric Materials Market (by Country), Metric Tons, 2016–2023

Table 6.55 Rest-of-the-World Thermoelectric Materials Market (by Country), \$Thousand, 2016-2023

Table 6.56 U.A.E. Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023



Table 6.57 U.A.E. Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023

Table 6.58 Brazil Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023

Table 6.59 Brazil Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023

Table 6.60 Others Thermoelectric Materials Market (by Application), Metric Tons, 2016-2023

Table 6.61 Others Thermoelectric Materials Market (by Application), \$Thousand, 2016-2023

Table 7.1 EVERREDtronics Ltd.

Table 7.2 Ferrotec (USA) Corporation.

Table 7.3 Hitachi Ltd.: Product Portfolio

Table 7.4 Jingyi Metal Material (Shanghai) Co., Ltd.

Table 7.5 KELK Ltd.

Table 7.6 Marlow Industries, Inc.

Table 7.7 Norilsk Nickel: Product Portfolio

Table 7.8 P&N Technology (Xiamen) Co., Ltd.

Table 7.9 Panasonic Corporation: Product Portfolio

Table 7.10 TECTEG MFR.

Table 7.11 Sigma Aldrich Corporation

Table 7.12 TECTEG MFR.

Table 7.13 TEGma AS

Table 7.14 Thermonamic Electronics(Jiangxi) Corp., Ltd.

Table 7.15 TOSHIBA MATERIALS CO., LTD.: Product Portfolio



# **List Of Figures**

## LIST OF FIGURES

- Figure 2 Global Thermoplastic Materials Market (by Type), 2017, 2018, and 2023
- Figure 3 Global Thermoelectric Materials Market (by Application), 2017 and 2023
- Figure 4 Global Thermoelectric Materials Market (by Region), 2017
- Figure 5 Global Thermoelectric Materials Market (by Country), \$Thousand, 2017
- Figure 1.1 Market Dynamics
- Figure 1.2 Impact Analysis of Drivers
- Figure 1.3 Average Annual Fuel Use by Vehicle Type (2015)
- Figure 1.4 World Carbon Dioxide Emission from Transport (% of Total Fuel Combustion)
- Figure 1.5 Utilization of Fuel in a Vehicle
- Figure 1.6 Impact Analysis of Restraints
- Figure 1.7 Impact Analysis of Opportunity
- Figure 2.1 Strategies Adopted by the Key Players
- Figure 2.2 Share of Key Market Strategies and Developments, 2015-2018
- Figure 2.3 Global Thermoelectric Materials Market Share Analysis 2017
- Figure 3.1 Global Thermoelectric Materials Market Supply Chain
- Figure 3.2 Global Thermoelectric Materials Porter's Five Forces Analysis
- Figure 3.3 Global Thermoelectric Materials Market Opportunity Matrix (by Region),
- \$Thousand, 2018-2023
- Figure 3.4 Global Thermoelectric Materials Market Opportunity Matrix (by Country), 2017
- Figure 3.5 Country Share Analysis of Global Thermoelectric Materials Market, 2017
- Figure 3.6 Country Share Analysis of Global Thermoelectric Materials Market, 2017
- Figure 4.1 Global Thermoelectric Material Market (by Type)
- Figure 4.2 Global Thermoelectric Materials Market (by Type), 2017 and 2023
- Figure 4.3 Bismuth Telluride in Global Thermoelectric Materials Market, 2016-2023
- Figure 4.4 Lead Telluride in Global Thermoelectric Materials Market, 2016-2023
- Figure 4.5 Silicon Germanium in Global Thermoelectric Materials Market, 2016-2023
- Figure 5.1 Global Thermoelectric Materials Market (by Application)
- Figure 5.2 Global Thermoelectric Materials Market (by Application), 2017 and 2023
- Figure 5.3 Global Thermoelectric Materials Market in Industrial Application, 2016-2023
- Figure 5.4 Global Thermoelectric Materials Market for Automotive Application, 2016-2023
- Figure 5.5 Global Thermoelectric Materials Market for Electrical & Electronics



Application, 2016-2023

Figure 5.6 Global Thermoelectric Materials Market for Healthcare Application, 2016-2023

Figure 5.7 Global Thermoelectric Materials Market for Other Applications, 2016-2023

Figure 6.1 Thermoelectric Materials Market (by Region)

Figure 6.2 Thermoelectric Materials Market Overview (by Region)

Figure 6.3 Global Thermoelectric Materials Market Share (by Region), 2016 & 2023,

\$Thousand and Metric Tons

Figure 6.4 Primary Energy Consumption (Million Tons Oil Equivalent)

Figure 6.5 Asia-Pacific Thermoelectric Materials Market (by Type), Metric Tons, 2017, 2018, and 2023

Figure 6.6 Asia-Pacific Thermoelectric Materials Market (by Type), \$Thousand, 2017, 2018, and 2023

Figure 6.7 Asia-Pacific Thermoelectric Materials Market (by Application), Metric Tons, 2017 and 2023

Figure 6.8 Asia-Pacific Thermoelectric Materials Market (by Application), 2017 and 2023

Figure 6.9 Asia-Pacific Thermoelectric Materials Market (by Country), Metric Tons, 2017 and 2023

Figure 6.10 Asia-Pacific Thermoelectric Materials Market (by Country), \$Thousand, 2017 and 2023

Figure 6.11 China Thermoelectric Materials Market, 2016-2023

Figure 6.12 Japan Thermoelectric Materials Market, 2016-2023

Figure 6.13 South Korea Thermoelectric Materials Market, 2016-2023

Figure 6.14 Rest-of-Asia-Pacific Thermoelectric Materials Market, 2016-2023

Figure 6.15 Primary Energy Consumption (Million Tons Oil Equivalent)

Figure 6.16 North America Thermoelectric Materials Market (by Type), 2017, 2018, and 2023

Figure 6.17 North America Thermoelectric Materials Market (by Type), 2017, 2018, and 2023

Figure 6.18 North America Thermoelectric Materials Market (by Application), 2017 and 2023

Figure 6.19 North America Thermoelectric Materials Market (by Application), 2017 and 2023

Figure 6.20 North America Thermoelectric Materials Market (by Country), 2017 and 2023

Figure 6.21 U.S. Thermoelectric Materials Market, 2016-2023

Figure 6.22 Canada Thermoelectric Materials Market, 2016-2023

Figure 6.23 Mexico Thermoelectric Materials Market, 2016-2023

Figure 6.24 Primary Energy Consumption (Million Tons Oil Equivalent) for Europe,



2013-2017

Figure 6.25 Europe Thermoelectric Materials Market (by Type), 2017, 2018, and 2023

Figure 6.26 Europe Thermoelectric Materials Market (by Type), 2017, 2018, and 2023

Figure 6.27 Europe Thermoelectric Materials Market (by Application), 2017 & 2023

Figure 6.28 Europe Thermoelectric Materials Market (by Application), 2017 and 2023

Figure 6.29 Europe Thermoelectric Materials Market (by Country), Metric Tons, 2017 and 2023

Figure 6.30 Europe Thermoelectric Materials Market (by Country), \$Thousand, 2017 and 2023

Figure 6.31 Germany Thermoelectric Materials Market, 2016-2023

Figure 6.32 France Thermoelectric Materials Market, 2016-2023

Figure 6.33 U.K. Thermoelectric Material Market, 2016-2023

Figure 6.34 Russia Thermoelectric Material Market, 2016-2023

Figure 6.35 Rest-of-Europe Thermoelectric Materials Market, 2016-2023

Figure 6.36 Rest-of-the-World Thermoelectric Materials Market (by Type), 2017, 2018, and 2023

Figure 6.37 Rest-of-the-World Thermoelectric Materials Market (by Type), 2017, 2018, and 2023

Figure 6.38 Rest-of-the-World Thermoelectric Materials Market (by Application), 2017 and 2023

Figure 6.39 Rest-of-the-World Thermoelectric Materials Market (by Application), 2016-2023

Figure 6.40 Rest-of-the-World Thermoelectric Materials Market (by Country), Metric Tons, 2017 and 2023

Figure 6.41 Rest-of-the-World Thermoelectric Materials Market (by Country),

\$Thousand, 2017 and 2023

Figure 6.42 U.A.E. Thermoelectric Materials Market, 2016-2023

Figure 6.43 Brazil Thermoelectric Materials Market, 2016-2023

Figure 6.44 Others Thermoelectric Materials Market, 2016-2023

Figure 7.1 Share of Key Companies

Figure 7.2 EVERREDtronics Ltd.: SWOT Analysis

Figure 7.3 Ferrotec (USA) Corporation.: SWOT Analysis

Figure 7.4 Hitachi Ltd.: Overall Financials, 2015-2017

Figure 7.5 Hitachi Ltd.: Net Revenue by Business Segment, 2015-2017

Figure 7.6 Hitachi Ltd.: Net Revenue by Geographical Area, 2015-2017

Figure 7.7 Hitachi Ltd.: SWOT Analysis

Figure 7.8 Jingyi Metal Material (Shanghai) Co., Ltd.: SWOT Analysis

Figure 7.9 KELK Ltd.: SWOT Analysis

Figure 7.10 Marlow Industries, Inc.: SWOT Analysis



Figure 7.11 Norilsk Nickel: Overall Financials, 2015-2017

Figure 7.12 Norilsk Nickel: Net Revenue by Business Segment, 2015-2017

Figure 7.13 Norilsk Nickel: Net Revenue by Geographical Area, 2015-2017

Figure 7.14 Norilsk Nickel: SWOT Analysis

Figure 7.15 P&N Technology (Xiamen) Co., Ltd.: SWOT Analysis

Figure 7.16 Panasonic Corporation: Overall Financials, 2015-2017

Figure 7.17 Panasonic Corporation: Net Revenue by Business Segment, 2015-2017

Figure 7.18 Panasonic Corporation: Net Revenue by Geographical Area, 2015-2017

Figure 7.19 Panasonic Corporation: SWOT Analysis

Figure 7.20 Reade International Corp., SWOT Analysis

Figure 7.21 Sigma Aldrich Corporation: SWOT Analysis

Figure 7.22 TECTEG MFR.: SWOT Analysis

Figure 7.23 TEGma AS: SWOT Analysis

Figure 7.24 Thermonamic Electronics(Jiangxi) Corp., Ltd.: SWOT Analysis

Figure 7.25 TOSHIBA MATERIALS CO., LTD.: SWOT Analysis

Figure 8.1 Global Thermoelectric Materials Market Scope

Figure 8.2 Report Design

Figure 8.3 Primary Interviews Breakdown (by Player, Designation, and Region)

Figure 8.4 Sources of Secondary Research

Figure 8.5 Data Triangulation

Figure 8.6 Top-down and Bottom-up Approach



## I would like to order

Product name: Global Thermoelectric Materials Market: Focus on Type (Bismuth Telluride, Lead

Telluride, and Silicon Germanium) and Application (Healthcare, Automotive, Industrial,

Electrical, and Electronics) – Analysis & Forecast, 2018-2023

Product link: https://marketpublishers.com/r/GFC12CF9337DEN.html

Price: US\$ 5,000.00 (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 <a href="https://marketpublishers.com/r/GFC12CF9337DEN.html">https://marketpublishers.com/r/GFC12CF9337DEN.html</a>

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 <a href="https://marketpublishers.com/docs/terms.html">https://marketpublishers.com/docs/terms.html</a>

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