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Ion-conducting Ceramics: Global Markets

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Abstracts

REPORT SCOPE:

This report provides an updated review of Ion-conducting ceramics, including materials and production processes, and identifies current and emerging applications for these products.

BCC Research delineates the current market status for Ion-conducting ceramics, defines trends, and presents growth forecasts for the next five years. The ICC market is analyzed based on the following segments: material category, material chemistry, composition, configuration, application, and region. In addition, technological issues, including key events and the latest developments, are discussed.

More specifically, the market analysis conducted by BCC Research for this report is divided into five sections.

In the first section, an introduction to the topic and a historical review of ICC technology are provided, including an outline of recent events. In this section, current and emerging applications for ICCs are also identified and grouped in segments (chemical/petrochemical, environmental, energy, sensors and instrumentation, and others).

The second section provides a technological review of Ion-conducting ceramics. This section offers a detailed description of ICC materials, their properties, configurations, and typical fabrication methods. This section concludes with an analysis of the most important technological developments since 2017, including examples of significant patents recently issued or applied for. The chapter ends with a highlight of the most active research organizations operating in this field and their activities.

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The third section entails a global market analysis for Ion-conducting ceramics. Global revenues (sales data in millions of dollars) are presented for each segment (material category, material chemistry, composition, configuration, application, and region), with actual data referring to the years 2018 and 2019, and estimates for 2020. Dollar figures refer to sales of only the Ion-conducting ceramic components, not the products containing these components (e.g., they refer to the ICC electrolyte in a solid-state battery). Revenues are at the manufacturing level.

The analysis of current revenues for Ion-conducting ceramics is followed by a detailed presentation of market growth trends, based on industry growth, technological trends, and regional trends. The third section concludes by providing projected revenues for Ion-conducting ceramics within each segment, together with forecast CAGRs for the period 2020 through 2025. Projected and forecast revenue values are in constant U.S. dollars, unadjusted for inflation.

In the fourth section of the study, which covers global industry structure, the report offers a list of the leading manufacturers of Ion-conducting ceramics, together with a description of their products. The analysis includes a description of the geographical distribution of these firms and an evaluation of other key industry players. Detailed company profiles of the top players are also provided.

The fifth and final section includes an analysis of recently issued U.S. patents, with a summary of patents related to ICC materials, fabrication methods, and applications. Patent analysis is performed by region, country, assignee, patent category, material category, material composition, and application.

REPORT INCLUDES:

47 data tables and 27 additional tables

A brief general outlook of the global markets for ion-conducting ceramics (ICCs) within the materials industry

Analyses of the global market trends with data corresponding to market size for 2018 and 2019, estimates for 2020, and projections of compound annual growth rates (CAGRs) through 2025

Identification of ceramic materials with high growth potential, their emerging applications, and details of current trends and future prospects which will lead to

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increasing demand for ICCs

Discussion of important technology updates and industry trends within each market segment

Evaluation of new technological developments related to ion-conducting ceramics, global R&D activities, and projected markets for such technologies

Patent study and analysis of the U.S. patent grants, with a summary of patents related to ICC materials, fabrication methods, and applications

Company profiles of the leading manufacturers and suppliers of ion-conducting ceramics. Major players including BASF, Corning, Kyocera Corp., Robert Bosch, Saint-Gobain, and Schott AG

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AMPCERA

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BASF
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COORSTEK
CORNING
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IONOTEC
JIANGSU GALAXI INDUSTRIAL
KERACEL
KYOCERA
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