

A COMPREHENSIVE OVERVIEW OF THE GLOBAL ZEOLITES MARKET

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ABSTRACT

The market of both natural and synthetic zeolites has been developed on almost all continents, and predictions show continued growth of the total global zeolite market in the coming decade. The wide application of zeolite materials in industrial processes is made possible by intensive scientific research and a large number of patents. Given the growing environmental concerns, natural and synthetic zeolites are increasingly used in water treatment, air purification, and environmental remediation due to their ability to adsorb pollutants and toxins. In addition to the assessment of the global growth of the zeolite market, and the categorization of the zeolite market by type, application, and geographic region, this paper will also highlight new challenges and unexplored areas in the research and application of zeolite, which could significantly affect the opening of new zeolite markets worldwide.

Key words: global market, natural zeolite, synthetic zeolite, environment, new challenges

INTRODUCTION

Fundamental and applied research on zeolites (natural and synthetic) contributes to the increasing demand for these materials in certain industries (chemical, petrochemical, construction, automotive, etc.), and more recently in the field of energy and renewable energy sources, which results in the growth of income on the market of natural and synthetic zeolites. Market research companies in their reports continuously provide estimates of the growth of the global natural and synthetic zeolite market for a specific period and their research includes: zeolite market size, share and trend analysis report by product, by

application and by region, for the specific estimated period [1-3]. Commercially, synthetic zeolites are more widely used than natural zeolites due to their arranged structural properties and better physical-chemical properties than natural zeolites. The limitation is the price of the final product and the use of chemicals for the preparation of synthetic zeolites. Natural zeolites have limited applications (agriculture, construction industry, water treatment). In the agriculture sector, there is a growing demand for natural zeolites, which is the main factor driving revenue growth in the market. The advantage of natural zeolites compared to synthetic zeolites is their price and the fact that they are more acceptable in environmental protection, remediation, and control [4]. However, the global growth of the market for both natural and synthetic zeolite is continuously increasing, and new knowledge and research contribute to the opening of new markets.

METODOLOGY

The market report of zeolites (natural and/or synthetic) shown on Figure 1. consists of several parameters: (1) The market size value refers to the initial year of the estimate (in this case in 2022); (2) The compound annual growth rate, or CAGR, is the mean

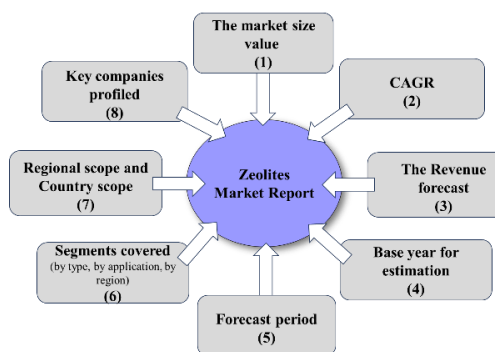


Figure 1. Zeolites Market Report Scope

annual growth rate of an investment over a specified period longer than one year; (3) The Revenue forecast (in this case in 2032); (4) Base year for estimation (in this case in 2022); (5) Forecast period (2022-2023); (6) Segments covered refer to: by type (e.g. natural zeolite - clinoptilolite, Chabazite, etc., or synthetic zeolites - Zeolite A, Zeolite X, etc.), by application (Adsorbents, Catalysts, Water treatment, Agriculture, etc.); by

region (North America; Europe; Asia Pacific; Latin America; Middle East & Africa and countries that have expressed zeolite market); 7) Key companies profiled on a global level. In addition to the above, the report also contains the following segments: revenue forecast, company ranking, competitive landscape, and growth factors. Zeolites market report analysis is important for the research community so that the researchers can direct new knowledge and innovations towards the market needs.

RESULTS AND DISCUSSION

In 2022, the global zeolite market is estimated at USD 8.5 Billion. The market will grow at a compound annual growth rate (CAGR) of 4.2 % (2022-2032) and it could reach an estimated total value of USD 12.7 Billion by 2032. Synthetic Zeolite Market size was valued at USD 5.31 Billion in 2022

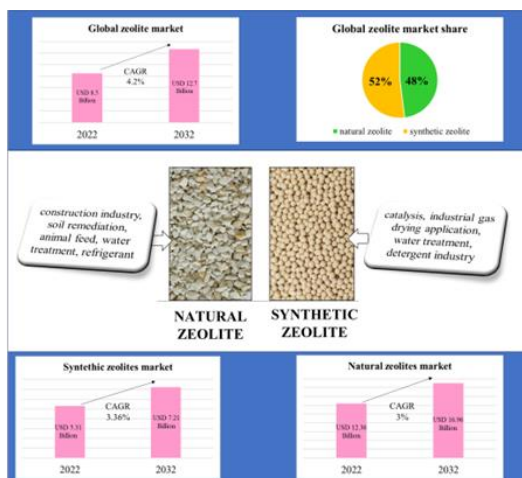


Figure 2. Global zeolite markets

and is projected to reach USD 7.21 Billion by 2030, growing at a CAGR of 3.36% from 2023 to 2030. The global natural zeolites market size was USD 12.36 Billion in 2022 and is expected to reach USD 16.96 Billion in 2032, and register a rapid revenue CAGR of 3% during the forecast period (Figure 2) [1-3]. The market for both natural and synthetic zeolites is very competitive worldwide. During the forecast period, the Asia-Pacific region is expected to hold the largest market for natural zeolites.

Table 1. New application of natural and/or synthetic zeolite

Zeolite	Application	Ref.
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Natural /Synthetic	CO ₂ capture	[5]
Natural	Composite material	[6]
Natural/Synthetic	Drug delivery	[7]

CONCLUSION

The global growth of the market for both natural and synthetic zeolite is continuously increasing, and new knowledge and research contribute to the opening of new markets. Although scientific research on natural zeolites has increased by as much as 80% in the past 20 years, there is still insufficient knowledge about the advantages of this natural material.[8]

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