

ΜΑΡΓΑΡΙΤΑ ΜΠΕΑΖΗ - ΚΑΤΣΙΩΤΗ  
Καθηγήτρια Ε.Μ.Π.

## Ειδικά Κεφάλαια Ανόργανης Χημείας



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### Abstract

In this challenging time of Crisis (both economically and in terms of values/ethics), Sustainable Development and the exploitation of Greek Mineral Wealth are among the top priorities for our Society. Taking the above into consideration, Greek Industrial Minerals (such as Bentonite, Hountite, Halazite, Zeolite, Bauxite, Laterites, Oil Shale, Perlite, Lignite, Sphalerite, Chalcopyrite, Galena, Calcite) and their utilization hold particular significance, under specific conditions and measures, regarding: I. Legislation: a. Mining and Quarrying Code - MQC, b. Draft Law on Hydrocarbons, c. Greece's inclusion in a European Initiative for Raw Materials (European selection of 13 critical minerals: Sb, Be, Co, Ga, Ge, In, Mg, Nb, Ta, Sn, rare earths, fluorite, graphite). II. The establishment of an appropriate development model in the exploitation of geothermal energy, minerals, and hydrocarbons of the country's subsoil for the exit from the recession. The above Basic Pillars of Knowledge

and Research are studied in this textbook under the prism of the following thematic areas: Origin of elements. Distribution of elements on Earth. Study of the structure and properties of elements found in industrially significant Greek minerals. Chemical bonds. Crystal structure. Properties of solid compounds. Principles of crystallography. Structure imperfections. Correlation of crystal and electronic structure with the optical, thermal, and mechanical properties of inorganic compounds. Formation of minerals and rocks. Classification and Physical/Mechanical properties of these. Industrial significance of minerals and rocks. Mineral mixtures. Possibilities of qualitative upgrading. Factors influencing industrial composition with mineral and rock raw materials. Industrial minerals - rocks. Study of minerals - rocks of great industrial significance in the Greek region. Legal Framework for Structural Construction Products - Directives - Standards - CE Marking.

