

Sandstones: Their Place and Role in the Structure of the Stratigraphic Structure,
Mineralogical-Structural Characteristics, and Practical Importance

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The presented bachelor's thesis is dedicated to one of the most important groups of sedimentary rocks - sandstones. The paper discusses the place of sandstones within the genetic classification of sedimentary rocks, along with their main mineralogical and structural characteristics, such as granulometry, degree of grain sorting, mineral composition (including primary and accessory minerals), types of cement, and classification schemes. A classification scheme for sandstones is presented. Particular attention is given to the key geological conditions influencing the formation of sandstones: source substrate, climate, transportation and deposition conditions, tectonic setting, and diagenetic processes. The thesis briefly reviews the practical importance of sandstones, both as a construction material and as a reservoir for natural resources (hydrocarbons, water). The paper also includes the methodology for laboratory testing of sandstone strength.