

In geology and mineralogy, a mineral or mineral species is, broadly speaking, a solid chemical compound with a fairly well-defined chemical composition and a specific crystal structure that occurs naturally in pure form. The geological definition of mineral normally excludes compounds that occur only in living beings. However some minerals are often biogenic (such as calcite) or are organic compounds in the sense of chemistry (such as mellite). Moreover, living beings often synthesize inorganic minerals (such as hydroxylapatite) that also occur in rocks. The concept of mineral is distinct from rock, which is any bulk solid geologic material that is relatively homogeneous at a large enough scale. A rock may consist of one type of mineral, or may be an aggregate of two or more different types of minerals, spatially segregated into distinct phases. Some natural solid substances without a definite crystalline structure, such as opal or obsidian, are more properly called mineraloids. If a chemical compound occurs naturally with different crystal structures, each structure is considered a different mineral species. Thus, for example, quartz and stishovite are two different minerals consisting of the same compound, silicon dioxide.

In the present book, fifteen typical literatures about Mineral Resources published on international authoritative journals were selected to introduce the worldwide newest progress, which contains reviews or original researches on Mineral Resources. We hope this book can demonstrate advances in Mineral Resources as well as give references to the researchers, students and other related people.<sup>1</sup>

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<sup>1</sup> <https://en.wikipedia.org/wiki/Mineral>