

Preface

Permafrost (from perma- 'permanent' and frost) is soil or underwater sediment which continuously remains below 0 °C (32 °F) for two years or more; the oldest permafrost has been continuously frozen for around 700,000 years. Whilst the shallowest permafrost has a vertical extent of below a meter (3 ft), the deepest is greater than 1,500 m (4,900 ft). Similarly, the area of individual permafrost zones may be limited to narrow mountain summits or extend across vast Arctic regions. The ground beneath glaciers and ice sheets is not usually defined as permafrost, so on land, permafrost is generally located beneath a so-called active layer of soil which freezes and thaws depending on the season.ⁱ

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

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ⁱ <https://en.wikipedia.org/wiki/Permafrost>