



State of the art of study on strength of frozen soils

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It has been more than 35 years since the last summarization on mechanical properties of frozen soils by Prof. Jessberger in 1981. During the recent decades, numerous works have been carried out towards strength of frozen soils. This paper firstly analyzes the mechanism of strength of frozen soils. Major influencing factors are listed. Then experimental works by various authors have been summarized and compared with respect to these factors such as, temperature, moisture content, strain rate and confining pressure and their influences on strength of frozen soils. Advances in failure criteria of frozen soils are also summarized; their advantages and disadvantages are analyzed.