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Subsurface Airflow Induced by Natural Forcings

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摘要 Subsurface airflow can be induced by natural processes，such as atmospheric or barometric pressure changes， water table fluctuations，topographic effects，and rainfall infiltration. Barometric pressure fluctuations are the most common cause of subsurface airflow，which can be significant under favourable geological conditions. This process has been studied most extensively because of its application to passive soil vapor extraction. Soil airflow induced by water table fluctuations can be significant，particularly where the fluctuations are of high frequency，for example，in tidal-influenced coastal areas. Top-ographic effects can lead to strong subsoil airflow in areas with great elevation differences. Rainfall infiltration usually produces only weak airflow.Air flow induced by these natural processes has important environmental and engineering implications. Among the different processes，airflow induced by tidal fluctuations has been studied the least，although it has exciting applications to coastal engineering projects and environmental remediation.

关键词 Airflow；Unsaturated zone；Natural forcings

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