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Transfers in Porous Media: Applications; 2.1. Transport of a volatile interstitial liquid coupled with thermal transfer; 2.1.1. Macroscopicization and transfer laws; 2.1.2. Balances and constitutive equations; 2.1.3. Applications; 2.1.4. Measuring transfer coefficients; 2.2. Coupled thermal transfer and transport during the freezing of interstitial fluid; 2.2.1. Constitutive equations; 2.2.2. Applications; 2.3. Transport of a volatile liquid coupled with the diffusion of a component in solution
2.3.1. Constitutive equations: coupling mechanisms 2.3.2. A few elementary processes; 2.4. Appendices and exercises; 2.4.1. Laws of gaseous diffusion and apparent conductivity; 2.4.2. Apparent thermal conductivity: the lighting of the EMT and its limits; 2.4.3. More about the constitutive equations; 2.4.4. Linearized equations and applications; 2.4.5. Measuring conductivity: steady-state methods; 2.4.6. Measuring conductivity: transient methods; 2.4.7. Linear equations: other applications; 2.4.8. Capillary heat pipe; 2.4.9. Freezing in porous media; Glossary; Bibliography; Index
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Sommario/riassunto

A porous medium is composed of a solid matrix and its geometrical complement: the pore space. This pore space can be occupied by one or more fluids. The understanding of transport phenomena in porous media is a challenging intellectual task. This book provides a detailed analysis of the aspects required for the understanding of many experimental techniques in the field of porous media transport phenomena. It is aimed at students or engineers who may not be looking specifically to become theoreticians in porous media, but wish to integrate knowledge of porous media with their
