

| | |
|-------------------------|---|
| 1. Record Nr. | UNINA9910818795803321 |
| Autore | Coussy Olivier |
| Titolo | Mechanics and physics of porous solids // Olivier Coussy |
| Pubbl/distr/stampa | Chichester, West Sussex, U.K. ; ; Hoboken, N.J., : Wiley, 2010 |
| ISBN | 1-119-95616-1 1-282-68776-X 9786612687761 0-470-71038-1 0-470-71039-X |
| Edizione | [1st ed.] |
| Descrizione fisica | 1 online resource (297 p.) |
| Disciplina | 620.1/16 |
| Soggetti | Porous materials Physics |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | MECHANICS AND PHYSICS OF POROUS SOLIDS; Contents; Preface; 1 The Strange World of Porous Solids; 2 Fluid Mixtures; 3 The Deformable Porous Solid; 4 The Saturated Poroelastic Solid; 5 Fluid Transport and Deformation; 6 Surface Energy and Capillarity; 7 The Unsaturated Poroelastic Solid; 8 Unconfined Phase Transition; 9 Phase Transition in Porous Solids; 10 The Poroplastic Solid; 11 By Way of Conclusion; Further Reading; Index |
| Sommario/riassunto | Mechanics and Physics of Porous Solids addresses the mechanics and physics of deformable porous materials whose porous space is filled by one or several fluid mixtures interacting with the solid matrix. Coussy uses the language of thermodynamics to frame the discussion of this topic and bridge the gap between physicists and engineers, and organises the material in such a way that individual phases are explored, followed by coupled problems of increasing complexity. This structure allows the reader to build a solid understanding of the physical processes occurring in the fluids and then porous |