

1. Record Nr.	UNINA9910254346303321
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Titolo	Convection in Porous Media // by Donald A. Nield, Adrian Bejan
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-49562-3
Edizione	[5th ed. 2017.]
Descrizione fisica	XXIX, 988 s : ill
Disciplina	620.116
Soggetti	Fluid mechanics Amorphous substances Complex fluids Geology—Statistical methods Catalysis Thermodynamics Heat engineering Heat transfer Mass transfer Engineering Fluid Dynamics Soft and Granular Matter, Complex Fluids and Microfluidics Quantitative Geology Engineering Thermodynamics, Heat and Mass Transfer
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface to the Fifth Edition -- Preface to the Fourth Edition -- Preface to the Third Edition -- Preface to the Second Edition -- Preface to the First Edition -- Nomenclature -- 1 Mechanics of Fluid Flow through a Porous Medium -- 2 Heat Transfer through a Porous Medium -- 3 Mass Transfer in a Porous Medium: Multicomponent and Multiphase Flows -- 4 Forced Convection -- 5. External Natural Convection -- 6 Internal Natural Convection: Heating from Below -- 7 Internal Natural Convection: Heating from the Side -- 8 Mixed Convection -- 9 Double-Diffusive Convection -- 10 Convection with Change of Phase -- 11 Geophysical Aspects -- References -- Index.

## Sommario/riassunto

This updated edition of a widely admired text provides a user-friendly introduction to the field that requires only routine mathematics. The book starts with the elements of fluid mechanics and heat transfer, and covers a wide range of applications from fibrous insulation and catalytic reactors to geological strata, nuclear waste disposal, geothermal reservoirs, and the storage of heat-generating materials. As the standard reference in the field, this book will be essential to researchers and practicing engineers, while remaining an accessible introduction for graduate students and others entering the field. The new edition features 2700 new references covering a number of rapidly expanding fields, including the heat transfer properties of nanofluids and applications involving local thermal non-equilibrium and microfluidic effects. Recognized as the standard reference in the field Includes a comprehensive, 350-page reference list Cited over 5900 times to date in its various editions Serves as an introduction for those entering the field and as a comprehensive reference for experienced researchers Covers the latest developments in research on nanofluids and CO<sub>2</sub> sequestration.

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