Record Nr. UNINA9910454581003321 **Titolo** Porous media [[electronic resource]]: heat and mass transfer, transport and mechanics / / Jose Luis Acosta and Andres Felipe Camacho, editors Pubbl/distr/stampa New York,: Nova Science Publishers, c2009 **ISBN** 1-60741-401-5 Descrizione fisica 1 online resource (267 p.) Altri autori (Persone) AcostaJose Luis CamachoAndres Felipe Disciplina 620.1/169 Soggetti Diffusion - Mathematical models Heat - Transmission - Mathematical models Porous materials - Industrial applications Porous materials - Mechanical properties Electronic books. 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 ""POROUS MEDIA: HEAT AND MASSTRANSFER, TRANSPORT ANDMECHANICS""; ""NOTICE TO THE READER""; ""CONTENTS""; ""PREFACE""; ""MODELING REACTIVE TRANSPORT DRIVENBY SCALE DEPENDENT SEGREGATION""; ""ABSTRACT""; ""INTRODUCTION""; ""SEGREGATION""; ""SEGREGATION IN URBAN ATMOSPHERIC MODELING""; ""REACTIVE TRANSPORT AND FLOW MODELING""; ""THE TRANSPORT EQUATION""; ""TRANSPORT MODELING""; ""BIMOLECULAR REACTIVE TRANSPORT""; ""NUMERICAL SIMULATIONS""; ""SEGREGATION INTENSITY MODEL""; ""APPLYING THE MODEL: EXAMPLES AND DISCUSSION"": ""REFERENCES"" ""INDUCED POROELASTIC AND THERMOELASTICSTRESS CHANGES WITHIN RESERVOIRS DURINGFLUID INJECTION AND PRODUCTION""" ABSTRACT""; ""1. INTRODUCTION""; ""2. STRESS CHANGE MEASUREMENT""; ""STRESS ARCHING EFFECTS""; ""3.1. Introduction""; ""3.2. Poroelastic Arching Ratios""; ""3.3. Thermoelastic Arching Ratios""; ""4. INDUCED STRESS CHANGE MODELING""; ""4.1.

Background""; ""4.2. Elasticity Field Equations""; ""4.3. Theory of Strain

Nuclei""; ""4.4. Theory of Inclusions""; ""5. THEORY OF

INHOMOGENEITIES""; ""6. CASE STUDY: EKOFISK OIL FIELD""; ""6.1. Reservoir Characteristics"" ""6.2. Geomechanical Properties"""6.3. Induced Stress Change Analysis""; ""7. CONCLUSION""; ""8. NOMENCLATURE""; ""REFERENCES""; ""POROUS HYDROGELS""; ""ABSTRACT""; ""ABBREVIATIONS""; ""1. INTRODUCTION"": ""2. CLASSIFICATION OF THE POROUS HYDROGELS BY PORE SIZE""; ""3. PREPARATIVE METHODS FOR POROUS HYDROGELS""; ""3.1. Crosslinking Polymerization in the Presence of Substances that AreSolvents for Monomers, but Precipitants for Formed Polymer"" ""3.2. Crosslinking Polymerization in Presence of Soluble Substances (Particles of Sugars, Salts) which Are Washed out from the Hydrogel after Polymerization"""3.3. Crosslinking Polymerization in the Presence of SubstancesReleasing Gases which Remain in the Resulting Hydrogel"": ""3.4. Freeze-Sublimation of the Hydrogel Swollen in Water (Lyophilization of Swollen Hydrogel)""; ""4. CHARACTERIZATION OF POROUS HYDROGELS""; ""4.1. Mercury Porosimetry""; ""4.2. BET Surfeace Area Measurements"; ""4.3. Scanning Electron Microscopy (SEM)""; ""4.4. Confocal Microscopy""; ""4.5. Diffusion Properties"" ""4.6. Mechanical Properties"""5. MODIFICATION OF POROUS HYDROGELS""; ""6. AUTHORA?S EXPERIENCE WITH POROUS HYDROGELSPREPARED IN THE PRESENCE OF POROGEN PARTICLES"; ""6.1. Porous Hydrogels (According to 3.2.) for Tissue Engine""; ""6.2. Characterization of the Porous Hydrogels Prepared According to 3.2""; ""6.3. Characterization of through-Flow Properties of the Hvdrogelswith Communicating Pores""; ""7. PERSPECTIVE""; ""ACKNOWLEDGMENTS""; ""8. REFERENCES""; ""MONTE CARLO SIMULATIONS FOR THE STUDY OFDIFFUSION-LIMITED DRUG RELEASEFROM POROUS MATRICES""; ""ABSTRACT""; ""INTRODUCTION""

""SOME DRUG RELEASE KINETIC EQUATIONS""