<<油层物理学>>

图书基本信息

书名:<<油层物理学>>

13位ISBN编号: 9787502175894

10位ISBN编号:750217589X

出版时间:2011-5

出版时间:杨胜来石油工业出版社 (2011-05出版)

作者:杨胜来

页数:384

版权说明:本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com

<<油层物理学>>

内容概要

《英文版普通高等教育十一五国家级规划教材:油层物理学》是杨胜来、魏俊之主编的《油层物理学》的英文版。

内容涵盖油气藏开发所涉及的基本物理现象、物理过程及物理量之间的关系。

全书包括储层流体的物化性质,储层岩石的物理特性和储层中多相流体的渗流机理三大部分。

《英文版普通高等教育十一五国家级规划教材:油层物理学》可作为石油工程及相关专业本科生的双语教材,也可供研究生及从事石油地质、采油工程、油藏工程的工程技术人员参考。

<<油层物理学>>

书籍目录

IntroductionSection Physico.chemical Properties of Reservoir FluidsChapter 1 Chemical Composition and Properties of Reservoir Fluids 1.1 Chemical Properties of Crude Oil 1.2 Physical Properties and Classification of Crude Oil1.3 Chemical Composition of Natural Gas1.4 Classification of Oil& amp; Gas Reservoirs1.5 The Chemical Composition and Classification of Formation waterChapter 2 Natural Gas Physical Properties under High Pressure 2.1 Apparent Molecular Weight and Density of Namral Gas 2.2 Equation of State for Natural Gas and principle of CorreSponding State2.3 Physical Properties of Natural Gas under High Pressure2.4 Water Vapor Content of Natural Gas and the Gas HydrateChapter 3 Phase State of Reservoir Hydrocarbons and Gas.Liquid Equilibrium 3.1 Phase Behavior of Reservoir Hydrocarbon Fluids 3.2 Gas-Liquid Equilibrium 3.3 Solution and Separation of the Gas in an Oil-Gas System3.4 Calculation of Oil.Gas Separation Problems Using Phase-State EquationsChapter 4 Physical Properties of Reservoir Fluids under Reservoir Conditions4.1 High.Pressure Physical Properties of Reservoir-oil4.2 Physical Properties of Formation Water under High-Pressure4.3 Measurement and Calculation of High-Pressure Physical Parameters of Reservoir-oil& Gas4.4 Application of the Fluid High-Pressure Property Parameters: Material Balance Equation of Hydrocarbons in ReservoirsSection Properties of Reservoir RocksChapter 5 Porosity of Reservoir Porous Medium 5.1 Constitution of Sandstone 5.2 Pores in Reservoir Rocks5.3 Porosity of Reservoir Rocks5.4 Compressibility of Reservoir Rocks5.5 F1uid Saturation in Reservoir RocksChapter 6 Permeability of Reservoir Rocks6.1 Darcy's Law and Absolute Permeability of Rock6.2 Gas Permeability and Slippage Effect6.3 Factors Affecting the Magnititude of Rock Permeability 6.4 Measurement and Calculation of Permeability 6.5 Permeability of Naturally Fractured and Vuggy Rocks6.6 Ideal Models of Rock Structure6.7 Sensibility of Sandstone Reservoir RocksChapter 7 Other Physical Properties of Reservoir Rocks7.1 Electrical Conductivity of Fluids-Bearing Rocks7.2 Thermal Properties of Reservoir Rocks7.3 Acoustic Characteristics of Reservoir RocksSection Mechanics of Multi-Phase Flow in Reservoir RocksChapter 8 Interfacial Phenomena and Wettability of Reservoir Rocks8.1 Interfacial Tension between Reservoir Fluids8.2 Interfacial Adsorption8.3 Wettability of Reservoir RocksChapter 9 Capillary Pressure and Capillary Pressure Curve 9.1 Concept of Capillary Pressure 9.2 Measurement and Calculation of Capillary Pressure Curves of Rock9.3 Essential Features of Capillary Pressure Curve9.4 Use of Capillary Pressure CurveChapter 10 Multiphase Flow through Porous Medium and Relative Permeability Curve10.1 Characteristics of Multi Phase Flow through Porous Medium 10.2 Two-Phase Relative Permeability 10.3 Three-Phase Relative Permeability 10.4 Measurements and Calculations of Relative Permeability Curves 10.5 Use of Relative Permeability CurvesAppendix 1 Unit Conversation TablesAppendix 2 Vocabulary of Technical TermAppendix 3 Charts of Equilbrium RatioReference

<<油层物理学>>

章节摘录

版权页:插图:Energy is the power to drive forwards the industrialization and modernization of the society. The development and utilization of energy governs the competitive strength and comprehensivenational power of a country. Oil & Diagrams: Gas is an important kind of energy, high-quality material for chemical industry, and animportant warfare material. Because it is important to both the energy safety and national defenseof a country, great attentions have been paid to petroleum industry and oil & Diagrams; gas trade by all of the countries. It is hard to imagine what the society would be without the oil and gas today. It can besay that petroleum plays an important and indispensable role in the economic development of the world. In the past 60 years since the birth of People Republic of China, our petroleum industry hasgrowth rapidly. The annual oil production was only 89,000 tons in year 1949. The annual oilproduction increase up to 170 million tons in 2007, and ranks within the top 4 countries in theworld. On the other hand, the consumption of oil and gas also increase greatly with the society and economy development in our country. Since 1997 China had become one of the bigestpetroleum consuming countries in the world.

<<油层物理学>>

编辑推荐

《油层物理学(英文版)》为普通高等教育"十一五"国家级规划教材之一。

<<油层物理学>>

版权说明

本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com