

中文核心期刊
中国科技核心期刊
RCCSE中国核心学术期刊

ISSN 1673-064X
CN 61-1435/TE



西安石油大学学报

JOURNAL OF XI'AN SHIYOU UNIVERSITY

自然科学版
Natural Science Edition



VOL.29
2014 **2**



(国内外公开发行)

西安石油大学学报 (自然科学版) · 双月刊

XI'AN SHIYOU DAXUE XUEBAO(ZIRAN KEXUE BAN)

2014年3月25日出版 第29卷第2期(总第145期)

目次

【地质与勘探】

- 伊朗北阿扎德干油田沥青质沉积特征 何延龙,余跃惠,蒲春生,张凡,董浩(1)
- 渤南洼陷沙四上亚段砂岩储集层特征及其控制因素 张本华(8)
- 鄂尔多斯盆地中生界及上古生界页岩孔隙类型及特征研究 袁野,赵靖舟,耳闯,王芮,魏之焜,沈武显(14)
- 河流-湖泊沉积体系准层序识别原理及应用 李延平,阮敏(20)
- 澳大利亚 Eromanga 盆地海相页岩成熟度评价方法探讨 李乐忠,苏展,唐颖,蒋时馨(25)
- 陇东地区长7致密油储层微观孔喉结构特征 陈转转,高永利,高辉(29)
- 锦州地区盐水泥浆井声波曲线的泥岩蚀变校正 石宁,李洪奇,罗伟平(34)
- 鄂尔多斯盆地东北部流-岩相互作用的岩石学记录对烃类运散的指示 马艳萍,刘池洋,司维柳,吴俊(37)
- 基于模糊C均值聚类算法和贝叶斯判别函数研究深水油藏分类评价 丁帅伟,姜汉桥,陈民锋,罗银富,汤国平(43)

【石油工程】

- 数值弥散和物理弥散对 CO₂ 混相驱替效率的影响 汪勇,侯吉瑞,汪剑武,陈汾君,马庆,吕蓓(50)
- 基于实验方法的酸压裂缝分形研究 付应坤,李治平,韩宁,钟富萍,赖枫鹏,杨森,孟超(55)
- 玻璃钢和两端金属对三分量阵列感应水平分量的影响研究 陈斐,仵杰,郭涛,曹婷,杨少波(60)
- 石油电动钻机井场电网有源电力滤波器的改进研究 李琳,孟庆龙,张栋栋,徐红(66)
- 基于四维变分的油藏数模自动历史拟合方法 杨元明,李治平,赖枫鹏,黄甫(70)
- 不对称垂直裂缝井产量递减规律 熊健,曾山,王绍平(74)

【化学与化工】

- 油基钻井液流变参数影响因素探讨 刘扣其,邱正松,曹杰,罗洋(78)
- GRF - CO₂ 清洁泡沫压裂液流变特性实验研究 罗向荣,王树众,孙晓,任晓娟(84)
- 新型高密度钻井液加重剂 Mn₃O₄ 的研究及性能评价 韩成,邱正松,黄维安,侯大炜,刘云峰,毛惠(89)
- CO₂ 分压对 J55 油管腐蚀产物膜特征的影响 朱世东,李金灵,马海霞,李建东,张永强(94)
- Waugh 型化合物 (NH₄)₆MnMo₉O₃₂ · 9H₂O 的绿色合成、晶体结构及表征 刘雪梅,薛丹,林春玲(99)

【计算机及其应用】

- 基于网格技术构建高校教学科研管理平台 张仙伟,季钢,侯令忠(104)
- 基于 PSoC5 和 CAN 总线的油田 RTU 设计 曹庆年,张珂,孟开元,崔占琴,董鑫(107)

JOURNAL OF XI'AN SHIYOU UNIVERSITY

(Natural Science Edition) · Bimonthly

Published on Mar. 25. 2014 Vol. 29 No. 2 (Sum No. 145)

CONTENTS

· Geology and Exploration ·

Study on asphaltene deposition in North Azadegan Oilfield of Iran

HE Yan-long, SHE Yue-hui, PU Chun-sheng, ZHANG Fan, DONG Hao (1)

Reservoir characteristics of the upper sub-member sandstones of the fourth member of Shahejie Formation in Bonan Sag and their influencing factors

ZHANG Ben-hua (8)

Study on types and features of the pore in Mesozoic and upper Palaeozoic shales in Ordos Basin

YUAN Ye, ZHAO Jing-zhou, ER Chuang, WANG Rui, WEI Zhi-kun, SHEN Wu-xian (14)

Identification principle of parasequences in fluvial and lacustrine depositional system and its applications

LI Yan-ping, RUAN Min (20)

Maturity evaluation of marine shale in Eromanga Basin, Australia

LI Le-zhong, SU Zhan, TANG Ying, JIANG Shi-xin (25)

Study on microscope pore throat structural features of Chang-7 tight oil reservoir in the eastern region of Gansu Province

CHEN Zhuan-zhuan, GAO Yong-li, Gao Hui (29)

Mudstone alteration correction of acoustic logging curve of saltwater mud wells in Jinzhou area

SHI Ning, LI Hong-qi, LUO Wei-ping (34)

Indication of petrologic records of fluid – rock interaction to migration and escaping of hydrocarbons in northeastern Ordos Basin

MA Yan-ping, LIU Chi-yang, SI Wei-liu, WU Jun (37)

Classification and evaluation of deepwater oil reservoirs by combining clustering algorithm based on fuzzy C-mean with

Bayesian discrimination function

DING Shuai-wei, JIANG Han-qiao, CHEN Min-feng, LUO Yin-fu, TANG Guo-ping (43)

· Petroleum Engineering ·

Influence of numerical dispersion and physical dispersion on displacement efficiency of CO₂ miscible flooding

WANG Yong, HOU Ji-ru, WANG Jian-wu, CHEN Fen-jun, MA Qing, LV Bei (50)

Experimental study on fractal characteristics of fractures in acidizing fracturing process

FU Ying-kun, LI Zhi-ping, HAN Ning, ZHONG Fu-ping, LAI Feng-peng, YANG Sen, MENG Chao (55)



Effects of glass fiber tube and metal at its two ends on the horizontal component of triaxial induction array logging

CHEN Fei, WU Jie, GUO Tao, CAO Ting, YANG Shao-bo (60)

An improved parallel active power filter used for electric drilling rigs in oilfield wellsite

LI Lin, MENG Qing-long, ZHANG Dong-dong, XU Hong (66)

Automatically matching of reservoir development history based on 4D-variational data assimilation

YANG Yuan-ming, LI Zhi-ping, LAI Feng-peng, HUANG Fu (70)

Production decline law of the well with vertical asymmetrical fracturing crack *XIONG Jian, ZENG Shan, WANG Shao-ping (74)*

· Chemistry and Chemical Engineering ·

Discussion on influencing factors of rheological parameters of oil-based drilling fluid

LIU Kou-qi, QIU Zheng-song, CAO Jie, LUO Yang (78)

Experimental study on rheological properties of GRF-CO₂ fracturing fluid

LUO Xiang-rong, WANG Shu-zhong, SUN Xiao, REN Xiao-juan (84)

Performance evaluation of high-density drilling fluid weighting agent Mn₃O₄

HAN Cheng, QIU Zheng-song, HUANG Wei-an, HOU Da-wei, LIU Yun-feng, MAO Hui (89)

Effect of CO₂ partial pressure on the characteristics of corrosion scale formed on J55 Tubing

ZHU Shi-dong, LI Jin-ling, MA Hai-xia, LI Jian-dong, ZHANG Yong-qiang (94)

Green synthesis, crystal structure and characterization of waugh-type (NH₄)₆MnMo₉O₃₂ · 9H₂O

LIU Xue-mei, XUE Dan, LIN Chun-ling (99)

· Computer and Its Applications ·

Construction of teaching and scientific research management platform for universities and colleges based on grid technology

ZHANG Xian-wei, JI Gang, HOU Ling-zhong (104)

Design of oil field RTU based on PSoC5 and CAN bus

CAO Qing-nian, ZHANG Ke, MENG Kai-yuan, CUI Zhan-qin, DONG Xin (107)

- 美国《化学文摘》(CA)源期刊
- 美国《石油文摘》(PA)源期刊
- 荷兰Scopus二次文献数据库源期刊
- 2000年荣获首届《CAJ-CD规范》执行优秀奖
- 2000年荣获“陕西省优秀科技期刊一等奖”
- 2002年荣获“陕西省科学技术类优秀期刊”
- 2004/2005年获陕西省科技期刊学术类优秀奖
- 2005/2006年获陕西省科技期刊学术类优秀奖
- 2008/2009年获陕西省科技期刊学术类优秀奖
- 2009年获“中国科技论文在线优秀期刊”
- 2010年获“中国科技论文在线优秀期刊”

西安石油大学学报 (自然科学版)

Xi'an Shiyou Daxue Xuebao
(*Ziran Kexue Ban*)

双月刊 (1986年创刊)

第29卷 第2期 2014年3月25日出版

Journal of Xi'an Shiyou University

(*Natural Science Edition*)

Bimonthly (Started in 1986)

Vo1.29 No.2 Published on March 25, 2014

主管单位： 陕西省教育厅
主办单位： 西安石油大学
编辑出版： 《西安石油大学学报》编辑部
主 编： 屈 展
副 主 编： 田美娥 张新宝
编 辑： 贺元旦 王 辉 董 瑾
英文编辑： 田美娥
地 址： 西安市南郊电子二路18号 710065
电 话： (029)88382326
传 真： (029)88216407
E-mail： xbzr@xsyu.edu.cn
网 址： http://www.xsdxzbk.com
国内发行： 《西安石油大学学报》编辑部
国内定价： ￥15.00
国外发行： 中国国际图书贸易总公司(北京399信箱)
国外定价： \$ 15.00
印刷单位： 长安大学雁塔印刷厂

Competent Authorities: the Education Department of Shaanxi Province
Sponsor: Xi'an Shiyou University
Edited and Published by: the Editorial Board of Journal of Xi'an Shiyou University
Editor-in-chief: QU Zhan
Deputy Editor-in-chief: TIAN Mei-e, ZHANG Xin-bao
Editor: HE Yuan-dan, WANG Hui, DONG Jin
English Editor: TIAN Mei-e
Address: No.18 Second Dianzi Road, Xi'an, Shaanxi, China 710065
Tel: (029)88382326
Fax: (029)88216407
E-mail: xbzr@xsyu.edu.cn
URL: <http://www.xsdxzbk.com>
Distributed at home by: the Editorial Board of Journal of Xi'an Shiyou University
Price: ￥15.00 per Copy
Distributed abroad by: China International Trading Corporation (Box 399, Beijing)
Price: \$ 15.00 per Copy
Printed by: Yanta Print House of Chang'an University

ISSN 1673-064X
CN 61-1435/TE

ISSN 1673-064X



9 771673 064057