

# Contents

## Papers

### Chemics

An Analysis on the Thermally Stimulated Depolarization Current of Polyvinyl Pyrrolidone Electret ..... SHI Yuan(4)

### Geosciences

Analysis on the Relationship between the Cloud Classifications FY-2E Satellite Remote Sensing and Observations of Ground Base ..... YANG Mu-tian, JIN Lian-ji(14)

Characteristics and Significance of Clay Minerals of Purpose Layer in Bayanwula Uranium Deposit of Erlian Basin ..... YOU Wei-hua, LI Man-gen,

HU Bao-quan, NIE Feng-jun, YANG Jian-xin, HAN Guo-hao, ZHANG Chao, LIU Zhong-ren(41)

Dolomitization Genetic Model and Exploration Significance of Silurian Dolomite Reservoir in Yaerxia of Jiuxi Basin, China ..... ZHANG Guang-wei, PAN Shu-xin,

DENG Yi-lin, ZHANG Li-ping, LONG Li-wen, LIU Zhen-hua, FENG Ming, WANG Hong-bo, MA Yu-hu(29)

Study on Deformation and Failure of High Slope Controlled by Goaf ..... LI Jun, LIN Feng, TAN Ning(35)

### General Science and Technique

Analytical Modeling and Analysis of Electromagnetic Acoustic Transducers with Cylindrical Helical Coil ..... GUO Dong-liang, LIU Xin-mei, CHEN Yun, YIN Jun-ling(41)

A Novel Four-dimensional Chaotic System and Its Microcontroller Implementation ..... ZHU Lei, LIU Yan-yun(46)

### Mining Technology

Effect of Pulse Frequency on Siliconizing on Niobium by Molten Salt Pulse Electrodeposition ..... WANG Yan-li, YANG Hai-li, WU Ye-kang, XU Hong, WANG Xin-yue, FENG Ce(51)

### Petroleum Technology

Time-varying Law of Reservoir Physical Properties——Pucheng Oilfield Wen51 Block Lower Shaer Reservoir for Example ..... SUN Ting-bin,

XIONG Yun-bin, WANG Ling, ZHAO Lei, WANG Zi-li, WANG Ming, WANG Zhi-bao, LIU Feng-gang, CUI Xiu-min(62)

A New Method Using Material Balance Equations to Interpret the Effective Stimulation Volume of Fracture Network Fracturing in Tight Reservoirs ..... LI Xian-wen, ZHANG Kuang-sheng, MA Bing, TIAN Shu-bao, ZHANG Jiang-long(62)

### Communicational Technology

Identification of Multi-component Pollution Gas Aliasing Peak Based on Constrained Independent Component Analysis ..... WANG Fang, CHEN Yuan-yuan, WANG Zhi-bin(104)

### Computational Technology

## Volume 15 Number 36( Sum 361 )

Kinematic Modeling of Wheel-legged Robot with Multi-locomotion Modes ..... XU Yan, WU Li-xun, DUAN Xing-guang(72)

Wavelet Analysis Combined with Amplitude Ratio Method to Pick up P Wave First Time ..... WANG Guo-fu, CHEN Jun-ting, ZHANG Fa-quan, YE Jin-cai, HUANG Gui-qiang(77)

The Film Layer Extraction and Preliminary Diagnosis of OCT Image Based on Region Segmentation ..... WANG Xi, ZHU Jiang-bing, KE Xin(83)

Angle Correction of IVUS on CAG 3D Reconstruction of Coronary Artery ..... ZHAO Hai-sheng, YANG Feng, LIN Mu-dan, LIANG Shu-jun(90)

### Traffics and Transportations

Macroscopic Characteristics of the Asphalt Pavement Evaluation Study Outline Laser-based Contour Detector ..... CHEN Xiao-mei, TIAN Li(98)

### Environmental Science

Methane Oxidation Capacity of Landfill Cover Biochar Amended Silt ..... LIU Bing-yue, ZHAO Zhong-hui, TU Huan-huan, QIAO Bing, GUO Hong-xi(104)

## Research Notes

### Mechanics

The Effect of Penetration Depth and Strain Rate on Zirconia Ceramics Nanoindentation Measurements ..... SUN Rui-jing, LIU Er-qiang, YUAN Guo-zheng,

LI Zhi-gang, YANG Xue-xia, SHU Xue-feng(122)

Numerical Simulation Study on Effect of Shaped Charge Liner with Segmentation on the Formation of Jet and the Penetration Ability of Jet ..... YUE Ji-wei, WANG Feng-ying, LIU Tian-sheng, LIU Run-zi(112)

### Physics

Microwave Transmission Optimization Simulation of Atomic Spin Resonance Magnetic Measurement System ..... MA Zong-min, XIE Yan-na, ZHANG Huan, WANG Fang, SHI Yun-bo,

TANG Jun, XUE Chen-yang, LIU Jun, LI Yan-jun(118)

Study on the Jet Stability of a Home-made Non-transferred Arc Plasma Torch ..... XIAO Meng, YU De-ping, CAO Xiu-quan, YUE Jing-hui(122)

### Geosciences

The Characteristics of Mafic-ultramafic Intrusion and Metallogenic Mechanism in the Nairn Area, Sudbury, Canada ..... XU Ying-hong, WANG Jing-bin, SONG Xie-yan,

WANG Xiang-lan, CHEN Lie-meng, YU Song-yue(133)

Hydrocarbon Reservoir Forming Condition and Reservoir Modes of the Upper-middle Jurassic and Lower Cretaceous in Dinan Swell-Fubei Slope Area ..... WANG Lin-lin, WANG Zhen-qi, ZHANG Zong-bin(141)

Research on Petroleum Geological Conditionsand Prediction of Favorable Exploration Zone in Hari Sag of Yingen-Ejinaqi Basin ..... WANG Xiao-duo,

LIU Hu-chuang, YU Jun, CHEN Zhi-jun, HE Xiao, LI Ke-she, LIU Tao, HAN Chang-chun(147)

### Petroleum Technology

Sedimentary Micro-facies and the Sedimentary Evolution for the 8-10 Sand Groups of the Middle Sha 3 Formation in Wennan Oil-field ..... CHEN Nai-dong, HU Wang-shui, LI Song-ze, WANG Chuang(154)

The New Study of Two-phase Fluid Displacement Model ..... LI Hao-chen, MA Zhi, GUO Tong-cui, GUO Wei(178)

Contrast Experiment on Conical PDC Cutter and Conventional PDC Cutter ..... SUN Yuan-xiu,

ZOU De-yong, XU Cheng-kai, GUO Yu-long(162)

Study on the Optimal Driving Depth of Riser in Jidong Offshore Exploration Area ..... SHEN Yuan-yuan, ZHU Kuan-liang, LU Shu-qin, CHEN Jin-xia(165)

### Weapon Technology

Studies on the Detonation Heat and Reaction Rate of Aluminum ..... WANG Jian-ling, YANG Xiao-meng, GUO Wei, WEI Guo-ping, XIAO Qi, LI Xin(168)

### Communicational Technology

Honeybees Mating Optimization Algorithm for Uplink Multi-user Detection in MIMO-OFDM Systems ..... GAO Wei, WANG Ming-yue, JING Xiao-rong(173)

### Computational Technology

Based on Sensor Network Layout of Concrete Dam Body Vibration Information Detection ..... XIE Hong-hao(178)

Extraction Algorithm of CAM Angiogenesis Skeleton Analysis ..... XU Zhong-yu, LI Bao-liang(182)

Automatic Detection and Identification of Important Persons from

News Image Collections

..... XIANG Zi-xi, LÜ Xue-qiang, ZHANG Kai(193)

### Architectural Technology

Influences of Vertical Stress and Drying-wetting Cycles on Soil-water Characteristic Curve of Loess ..... ZHAO Wen-bo, XU Jie, CHENG Qing, LU Yong-hong(193)

Experimental Research on Freezing-thawing Cycles of Crude Saline Soil in Lop Nur Area ..... LI Yan, ZHANG Yuan-fang, SHI Qun, LU Hai-tao, LIU Kai(197)

Experimental Studyon Geometry Effects about Geological Exploration Core Directly Used for Mechanical Experiment in Coal Mining Area ..... KANG Ya-ming, JIA Yan, HE Xian-yuan(201)

The Indoor Model Test of the Effect of Embedded Depth into the Cap on Pile Horizontal Bearing Capacity ..... ZHENG Mao-tao, GUO Zhao-sheng, HE Wu-bin, BAI Xiao-hong(205)

On the Experimental Research of Manufacture an Lightweight Aggregate from Cotton Stalk ..... JIN Qiang, ZHU Rui, ZHENG Wen-ying(222)

Experimental Study on the Mechanical Properties of the Lithium Slag and Hybrid Fiber Reinforced Concrete ..... CHEN Hao, ZHANG Guang-tai, GUO Rui, LING Fang(224)

### Aeronautics and Astronautics

The Hydrodynamic Moment Performance Study of an Amphibian ..... HUANG Miao, ZHANG Jia-xu, LI Cheng-hua, ZHANG Ke(222)

### Environmental Science

Research on the Methods of Modified C18 SPE Membrane Rapid Enrichment of Alkyl Mercury in the Water ..... WU Zhong-bo,

ZHANG Zhu-qing, LI Guang-zhu, LIU He, ZHAO Xin, FENG Shuo, YU Yang-yang, WANG He(222)

Recorrected Table ..... (29)