Contents

A Modified Ring Spinning System with Various Diagonal Yarn Path Offsets .............................................. 1
Tingting Wu, Chunping Xie, Xuzhong Su, Xinjin Liu, Bin Huang

Enhanced Oil Recovery and Corrosion Inhibition through a Combined Technology of Gel Treatment for Water Shutoff and Corrosion Inhibitor Huff & Puff in Oil Well ............................................................... 7
Qing You, Yongchun Tang, Benzhe Wang, Fulin Zhao

Synthesis of lamellar Shape KZnPO₄ and Its Standard Molar Enthalpies of Formation ......................... 13
Sheng-fu Wu, Shao-mei Ma, Zeng-wei Huang, An-ping Liao and Ai-qun Yuan

Preparation and Characterization of Dendritic Amino Polymers .............................................................. 19

Numerical Simulation of Duct-vented Gas Explosion ................................................................. 25
Ping Tang, Juncheng Jiang

Synthesis of epoxidated castor oil and its effect on the properties of waterborne polyurethane .............. 31
Zhenyang Luo, Yijun Shi, Dong Zhao, Ming He

Design of Intelligent Controlling System for Pumping Unit’s Intermisive oil-drawing Using Dynamometer Cards ................................................................. 37
Changxin Cai, Changshuai Jiao, Qiongmei Wang

Economic Losses From Marine Pollution Adjacent to Pearl River Estuary, China .............................. 43
Meifang Cai, Kaiming Li

Numerical investigation of shell-side characteristics of H-shape baffle heat exchanger ...................... 53
Wang Yongqing, Gu Xin, Wang Ke, Dong Qiwu

Formulation and physicochemical characterisation of a novel self-microemulsifying delivery system as hydrotropic and solubilising agent for penfluridol ............................................................... 59
Xuemei Zhuang, Xia Tian, Youguang Zheng, Nuo Lan, Ling Liu, Rongli Zhang, Yi Liu

Theoretical model of Yarn Torque in a Modified Ring Spinning Yarn path .......................................... 66
Xuzhong Su, Weidong Gao, Tingting Wu, Xinjin Liu, Chunping Xie

Absorption and oxidation of arsenite by Pteris vittata roots and its kinetics ........................................ 72
Weifeng Song, Xiaqing Chen, Ming Yan, Qi Deng

Evaluation of n-butane Gas Adsorption Performance of Composite Adsorbents Used for Carbon Canister ......................................................................................................................... 78
Hongyu Huang, Zhaohong He, Haoran Yuan, Yong Chen, Noriyuki Kobayashi
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determination of anthraquinone content in lac dye through combined spectrophotometry and HPCE</td>
<td>86</td>
</tr>
<tr>
<td>Zhang Hong, Fang Guigan, Zheng Hua, Li Kun</td>
<td></td>
</tr>
<tr>
<td>Inorganic N of Atmospheric Wet Deposition From A Typical Agro-Ecosystem In Southeast China During Rainy Season</td>
<td>95</td>
</tr>
<tr>
<td>Jian Cui, Jing Zhou, Ying Peng, Hao Yang, Yuan Q. He</td>
<td></td>
</tr>
<tr>
<td>Thermal analysis of four insect waxes based on differential scanning calorimetry (DSC)</td>
<td>101</td>
</tr>
<tr>
<td>Zhang Ruguo, Zheng Hua, Zhang Hong, Feng Ying, Li Kun, Zhang wenwen</td>
<td></td>
</tr>
<tr>
<td>Leaching Kinetics of Pyrolusite by Macromolecular Melanoidins of Molasses Alcohol Wastewater in H₂SO₄</td>
<td>107</td>
</tr>
<tr>
<td>LV Yi-ju, SU Jing, WEN Yan-xuan, SU Hai-feng, YANG Ke-di, LV Xiao-yan</td>
<td></td>
</tr>
<tr>
<td>The Adsorption of CHS-1 Resin for Cr (VI) of Low Concentration from Electroplating Wastewater</td>
<td>116</td>
</tr>
<tr>
<td>Mei-ling KONG, Xiao-ou MA, Jun SHI</td>
<td></td>
</tr>
<tr>
<td>Surface Radon Exhalation Rates of Building Material and Soil Affect on Indoor Air Radon Concentration</td>
<td>122</td>
</tr>
<tr>
<td>He Xiaofeng, Wang Guosheng</td>
<td></td>
</tr>
<tr>
<td>Research on lowering actuating pressure of injection wells of ultra-low permeable reservoirs</td>
<td>128</td>
</tr>
<tr>
<td>Rongjun Zhang, Shiquan Li</td>
<td></td>
</tr>
<tr>
<td>Damage Degularity and Control Techniques of Eulecaium gigantean Around Tarim Basin in Xinjiang</td>
<td>133</td>
</tr>
<tr>
<td>Chaoyang Yue, Jingwen Zhang, Xinpeng Zhang</td>
<td></td>
</tr>
<tr>
<td>Inhibition effects of human gastric carcinoma SGC-7901 cells on Chrysanthemum flavonoids in vivo</td>
<td>139</td>
</tr>
<tr>
<td>Xiaoyan Pan, Guangtao Xu, Xinmei Zhou, Ruilin Shen, Bo Hu</td>
<td></td>
</tr>
<tr>
<td>Modelling of Soil Water Movement and its application of Citrus Garden in Hilly Area of Jiangxi Province</td>
<td>145</td>
</tr>
<tr>
<td>Yuanshu Jing, Jianjun Chen</td>
<td></td>
</tr>
<tr>
<td>Research on chemical exchange process of boron isotope separation</td>
<td>151</td>
</tr>
<tr>
<td>Yiping Huang, Shuang Cheng, Jiao Xu, Weijiang Zhang</td>
<td></td>
</tr>
<tr>
<td>Effects of cadmium pollution in soil on cadmium accumulation of cabbage and its biological effects on human intestinal cells line</td>
<td>157</td>
</tr>
<tr>
<td>He Wan-ling, Li Xiao-li, Shentu Jia-li, Yang Xiao-e, Zhang Ji-liang</td>
<td></td>
</tr>
<tr>
<td>Synthesis and UV-protective properties of monoazo acid dyes based on 2-hydroxy-4-methoxybenzophenone</td>
<td>162</td>
</tr>
<tr>
<td>Yunming Wang, Bingtao Tang, Wei Ma, Shufen Zhang</td>
<td></td>
</tr>
<tr>
<td>Reduction of Free Fatty Acids of Waste Oil by Acid-Catalyzed Esterification</td>
<td>168</td>
</tr>
<tr>
<td>Maryam Otadi, Alemeh Shahraki, Mahdi Goharrokhi, Farideh Bandarchian</td>
<td></td>
</tr>
<tr>
<td>Characteristics of Oil-Water Relative Permeability and Influence Mechanism in Fractured-Vuggy Medium</td>
<td>175</td>
</tr>
<tr>
<td>Aimin Lv, Jun Yao, Wei Wang</td>
<td></td>
</tr>
</tbody>
</table>
Study on Solvent Sublation for Separation and Enrichment of Total flavonoids in *S. m edusa*. Maxim

**XiQian LIU, Zhen Guo, YiWei QING**

Molecular dynamics simulations of the aggregation of nanocolloidal amorphous silica monomers and dimers

**S.R. Kirk, Dulin Yin, M. Persson, J. Carlen and S. Jenkins**

The Clone of cDNA encoding chalcone isomerases and its information analyze in *E. breviscapus* (vant) Hand.-Mazz

**Zhang yun-feng, Zhang yang,Cui ming-kun,Yan sheng-qi**

Highly selective synthesis of 2,6-dimethylnaphthalene over alkaline treated ZSM-12 zeolite

**Cheng Li, Lingfei Li,Wei Wu, Dongsheng Wang, A.V. Toktarev, O.V. Kikhtyanin, G.V. Echevskii**

The Effects of Perfluorooctane Sulfonate (PFOS) on Chinese cabbage (*Brassica rapa pekinensis*) Germination and Development

**Zhang De-Yong, Shen Xiu-Ying, Xu Xiao-Lu**

Effect of Pb on growth, accumulation and quality component of tea plant

**Wu Yongsheng, Liang Qihui, Tang Qian**

Chemical Characteristics and Cause Analysis of Precipitation in the South of Liaodong Peninsula

**Y. Song , D. Li, Y. Wang, R.D. Wang, H. Xu**

Law of Motion of Packing sand Particles in High Pressure Packing Sand Control Operation

**Li Dong, Zhou Xiaojun, Wang Yao**

Response of Anatomical Features of Broadleaf Tree Root in Karst area to Soil Erosion

**Luo Mei, Zhou Yunchao, Wang Ke Ke**

Review on Allelopathy of Exotic Invasive Plants

**Wang Chengxu, Zhu Mingxing, Chen Xuhui, Qu Bo**

Development Characteristics and development adjustment countermeasures of Wangji oilfield

**Sun Jing, Liu Dehua**

Study of mesozoic stratigraphic oil–gas reservoir of Yuqia–Hongshan fault sag in north margin of Qaidam basin

**Zhang Yan, Yang Guang, Zhang Yongshu**

Matching Relation between HPAM Polymer DQ3500 and Pores of Reservoir Rock

**Luo Wenli, Ma Desheng, Lin Meiqin, Liu Gang,Nie Xiaobin, Lin Qingxia**

Study on hydrodynamic performance and mass transfer efficiency of nickel foam packing

**Weijiang Zhang, Bing Zhang, Zhiqiang Shi**

Screening, Characterization, and Application of *Shigella flexneri* FB5 in Fomesafen-Contaminated Soil

**Fengshan Yang, Liang Liu, Changwang Liu**

Arsenic Removal from Wastewater by Modified Adsorbents

**Huang Jianhong, Nie Feng, Peng Fuquan, Guo Qingwei**

The improvement of cementation quality rating method based on compressive strength for low density cement system

**Yuhuan Bu,Wenyu Song,Meijie wang,Yingjun He**
Floral and pollen morphology of Pogostemon Cablin (Lamiaceae) from Different Habitats and its taxonomic significance ............................................................................................................................. 295
Chun-gong Li, You-gen Wu, Qiao-sheng Guo

Research and Application of Slag Activity Stimulation at Low Temperature ........................................ 301
Yuhuan Bu, Jianhua Li, Chengwen Wang, Xiaojian Chen

Characterization of titania hydrosol and its influence on light fastness of polyester fabric ................. 307
Ran Wang, Yangqiu Wang

Human Factor Risk Quantification for Oil and Gas Drilling Operation ................................................... 312
Zhao Quanmin, Zhang Hong, Fan Jianchun

Speciation of Heavy Metals in the Sediments from Different Eutrophic Lakes of China ....................... 318
Lu Cheng-xiu, Cheng Jie-min

The Synthesis of Pentaerythrityl Tetramidazole .................................................................................... 324
Haiyan Liu, DaMing Gu, Guoyu Liu, Xiuli Zhao, Cheng Chen

Preliminary Study on Air Injection in Annuli to Manage Pressure during Cementing ......................... 329
Yuhuan Bu, Fei Li, Zizhen Wang, Jianhua Li

Enhanced cellulase production by solid state fermentation with polyurethane foam as inert supports. ... 335
Tiegang Hu, Yujie Zhou, Lingmei Dai, Yonggang Wang, Dehua Liu, Jian-an Zhang, Hongjuan Liu

Bar-Coded Pyrosequencing Reveals the Bacterial Community during Microcystis Water Bloom in Guanting Reservoir, Beijing .......................................................... 341
Chen Cheng, Zhang Zaichao, Ding Aizhong, Wu Jiayan, Xiao Jingfa, Sun Yujiao

Influencing factors of phosphorus removal by novel integrated bioreactor ........................................... 347
Li Dehao, Yin Xudong, Yi Fan, Zhang Lina, Li Hua

Effect of Temperature on Emulsion Polymerization of n-Butyl Acrylate ............................................. 353
Guangfeng WU, Chunyan WANG, Zhiyong TAN, Huixuan ZHANG

Removal of Disperse Dyes from Wastewater by Nano-iron Modified Goldmine Waste-solid Assisted AOPs ........................................................................................................ 358
Mei Huang, Kun Zhao, Mindong Zhang, Shengfu Chen, Wanfu Xu, Yaoliang Ye, Weisong Fu, Yanfei Wei, Zhi Qiu, Fucheng Sun

A fluid-solid coupling model of wellbore stability for hydrate bearing sediments .............................. 363
Lingdong Li, Yuanfang Cheng, Yuting Zhang, Qing Cui, Fengkun Zhao

Experimental Study on Inlet Structure of the Rod Pump with Down-hole Oil-water Hydrocyclone ...... 369
Li Dong, Zhou Xiaoqun, Zhou Hai'an

The effect of pecan oil on hippocampal cells apoptosis of ovariectomized rats ..................................... 375
Xing-yu Zhao, An-heng Liu, Wei Zhang, Shi-jie Lv, and Kuang Ren

Study on synthesis technology of 4,6-dinitro-1,2,3-trichlorobenzene and waste acid recycling ............ 381
Juan DONG, Xin TIAN, Xiao-yi SUN, Wen-wei JIANG, Qin LUO, Qin YANG

Experimental Study on Overflow Pipe Structure of the Rod Pump with Down-hole Oil-water Hydrocyclone .................................................................................................................. 387
Li Dong, Zhou Xiaoqun, Chen Yiyan
Genetic Diversity Analysis of Seed Appearance Quality of Chinese Soybean Mini Core Collection .....392
Xiaobo Wang, Guanghui Fu, Shuhong Yuan, Haowei Zhang

Optimization design of horizontal wells development in low permeability gas reservoir in Su 53-4 well area ..............................................................398
Liu Dehua, Zhang Guowei, Sun Jing, Li Wenyong

In vitro evaluating the activities and stabilities of the multi-hydratases produced by Aspergillus niger zju-Y1 in simulated poultry digestive tract pH levels.................................................................405
Gu Fengying, Gao Jie, Ruan Hui, He Guoqing

Effects of metallic cations on desorption of phenanthrene and fluoranthene from long-term contaminated soil particles.........................................................411
Gang Chen, Lirong Cheng, Aizhong Ding, Lin Jiang

Applications for drowning identification by planktonic diatom test on rats in forensic medicine ..........417
Guangtao Xu, Bo Hu, Ruilin Shen, Xiaoyan Pan, Xinmei Zhou

Synthesis of Some Novel Half Titanocene Catalysts and Their Catalytic Performance for Copolymerization of Ethylene-Propylene .................................................................422
Hongjiang Zhang, Shengfu Ji, Xiaoping Cai