



ISSN 1000-8438  
CN 11-1815/O6

# 大学化学

## UNIVERSITY CHEMISTRY

第33卷 第6期 Vol.33 No.6  
2018



中华人民共和国教育部主管  
北京大学、中国化学会主办  
北京大学化学与分子工程学院大学化学编辑部出版

[www.dhxh.pku.edu.cn](http://www.dhxh.pku.edu.cn)

万方数据

## 目 次

### 今日化学

基于不同工作电极的亚硝酸盐电化学传感器 ..... 马闯,高娟娟,张树鹏,王霜,谢康俊,宋海欧 (1)

### 教学研究与改革

化学(师范)专业培养体验剖析和改革建议 ..... 李丽萍,杨雨鹤 (11)

几点提升结构化学模型实习课效果的举措 ..... 孙宏伟,陈兰 (18)

本科生化学实验室安全课程教学探索 ..... 朱莉娜,邵松雪,弓保津,沈海云,商闯 (21)

### 知识介绍

芳卤化合物的邻位锂化反应和锂卤交换反应 ..... 杜成堂,张玉斌,赵冬冬,张军,李凯 (26)

### 化学实验

推荐一个色谱分析实验:高效液相色谱法测定复方醋酸地塞米松乳膏中醋酸地塞米松的含量

..... 高晓慧,刘浩然 (33)

苯胺四聚体合成及电致变色器件制备——一个大学化学综合性实验 ..... 晁单明 (38)

沉淀生成影响氧化还原反应方向的实验设计与异常现象解释 ..... 李新学 (45)

### 师生笔谈

无机化学课程中 $6s^2$ 惰性电子对效应教学实践与体会 ..... 刘宗怀,何学侠,陈沛 (48)

在分析化学实验中渗透马克思主义哲学思想的探讨 ..... 李爱峰,王术皓,贾丽萍,韩昭君 (53)

分析化学知识内容的模块化功能划分 ..... 陶然,赵文秀,董树国,白羽 (60)

### 自学之友

物理化学中关于 $n$ 级反应及其半衰期的讨论 ..... 李作鹏,尚建鹏,武美霞,苏彩娜,郭子英,张三兵,郭永 (65)

### 国外化学教育

纽约城市大学城市学院化学系普通化学教学模式分析 ..... 任铁真,段中余 (71)

### 竞赛园地

第二届国际大都市奥林匹克竞赛化学竞赛试题解析(一) ..... 施华 (77)

## CONTENTS

### Chemistry Today

Electrochemical Sensors for Nitrite Based on Different Working Electrodes

..... MA Chuang, GAO Juanjuan, ZHANG Shupeng, WANG Shuang, XIE Kangjun, SONG Haiou (1)

### Study and Reform of Chemical Education

Discussion of Chemistry Teacher Education: From Training Experience Survey to Reform Suggestions

..... LI Liping, YANG Yuhe (11)

Some Measures to Improve Structural Model Exercises ..... SUN Hongwei, CHEN Lan (18)

Teaching Exploration of the Chemical Laboratory Safety Course for Undergraduates

..... ZHU Lina, SHAO Songxue, GONG Baojin, SHEN Haiyun, SHANG Chuang (21)

### Survey of Chemistry

*Ortho* Lithiation and Lithium-Halogen Exchange of Aromatic Halide

..... DU Chengtang, ZHANG Yubin, ZHAO Dongdong, ZHANG Jun, LI Kai (26)

### Chemistry Laboratory

Recommending an Chromatographic Analysis Experiment: Determination of the Content of Dexamethasone Acetate in

Mixed Cream by High Performance Liquid Chromatography (HPLC) ..... GAO Xiaohui, LIU Haoran (33)

Synthesis of Aniline Tetramer and Its Application of Electrochromic Device: A College Comprehensive Chemical

Experiment ..... CHAO Danming (38)

Experimental Design and Unexpected Phenomenon Interpretation on the Change of Direction of Redox Reaction Induced

by Precipitation Formation ..... LI Xinxue (45)

### Between Teacher and Student

Teaching Practice and Experience of  $6s^2$  Inert Pair Effect in Inorganic Chemistry Course

..... LIU Zonghuai, HE Xuexia, CHEN Pei (48)

Discussion on Infiltrating Marx's Philosophical Thinking in Analytical Chemistry Laboratory

..... LI Aifeng, WANG Shuhao, JIA Liping, HAN Zhaojun (53)

Modularization of the Knowledge of Analytical Chemistry According to the Function

..... TAO Ran, ZHAO Wenxiu, DONG Shuguo, BAI Yu (60)

### Self Studies

Discussion on the  $n$ th Order Reaction and Its Half-Life in Physical Chemistry

..... LI Zuopeng, SHANG Jianpeng, WU Meixia, SU Caina, GUO Ziying, ZHANG Sanbing, GUO Yong (65)

### Chemistry Education-International

Teaching Mode Based on General Chemistry in City College of New York ..... REN Tiezhen, DUAN Zhongyu (71)

### Chemical Olympiad Competition

Problem Analyses for the Second International Metropolis Chemistry Olympiad (Part I)..... SHI Hua (77)