

“中国学术期刊综合评价数据库”来源期刊  
“中国社会科学期刊精品数据库”入选期刊  
“万方数据-数字化期刊群”和“中国核心  
期刊（遴选）数据库”入选期刊

# 化工高等教育

第30卷 • 第1期 • 总第129期

全国化工高教学会会刊

ISSN 1000-6168



9 771000 616133

2013.1

# 目 录

2013年第1期

(总第一百二十九期)

## HIGHER EDUCATION IN CHEMICAL ENGINEERING

### 高教改革与发展

#### 编委会

主任：王子镐

常务副主任：樊丽秋

副主任：于建国 马连湘 卢冠忠

孙伟民 吕明 沈健

陈宝东 赵地顺 潘正安

编委：艾宁 冯霄 叶苑

余立新 张述伟 李晓

陈纪忠 陈砾 邹纲明

贾绍义 高静 郭文莉

梁斌 蒋登高

(以上副主任、编委按姓氏笔划为序)

#### 编辑部

主编：于建国

常务副主编：谭文松

副主编：王秀平

主编助理：孙艳丽

编辑部主任：包玲

封面设计：费洁

中文编辑：吴文水

英文编辑：程有新

责任编辑：张明德

#### 编辑部成员(按姓氏笔划为序)

丁力 王秀平 王福安

王运东 王车礼 任元军

乔旭 刘赞英 刘永忠

刘健 刘世斌 刘桂萍

汪洪 李修伦 余国贞

邹纲明 吴雪梅 罗道全

杨立军 钟理 谢川

谭文松

### 研究生教育

18 增强化学工程与技术学科研究生创新能力的策略 王许云等

21 材料工程领域全日制工程硕士培养的实践探索 张翔,居沈贵

### 学科与专业建设

25 以科研促进高校教学团队建设 何建波等

29 以行业展会为平台 拓宽工科学生视野 潘泳康等

### 课程建设与改革

32 多元化讲座式教学团队,提升化工与制药导论教学效果 吴雪梅等

35 化工原理课程设计教学内容和模式探索与实践 肖武等

38 工科基础化学在交叉学科人才培养模式中的研究与实践 董泽华等

42 面向生物工程专业的化工原理教学改革探索 胡洪波等

# 目 录

2013年第1期  
(总第一百二十九期)

HIGHER EDUCATION IN CHEMICAL ENGINEERING

## 实验与实践教学

- 45 制药工程专业实践教学改革的几点思考 颜雪明等  
49 推荐一个微量合成综合化学实验  
——N-丁基-4-溴-1,8-萘酰亚胺合成及质谱表征 孙学芹,邹雷  
51 高分子物理实验教学改革的研究与实践 吴广峰,杨智慧  
54 工科远程实验教学的实践初探 汪淳等

ISSN 1000-6168  
CN31-1043/G4

## 教学经验交流

- 59 用 SRK 方程与 PR 方程求算双组分混合气体热力学性质 于志家,杨筱恬  
63 曲线拟合法计算水溶液表面张力 居学海  
66 运用 Excel 对精馏塔进行逐板计算和简捷计算 许军等  
71 面向能力培养的状态监测与故障诊断课堂教学实践 周邵萍  
75 无机化学教学过程中学生创造性思维的培养 王凡等  
78 大气污染控制工程课堂教学改革与优化 唐小玲,倪金龙  
81 关于高校教育质量的思考和实践 周家春  
84 大学化学公共基础课程研究性教学模式的探索与实践 徐红等  
87 有机化学教学中关于“学”的思考 梁静等  
92 浅谈有机化学的教学与大学生科学素养的提高 王朝霞等  
95 冶金专业冶金原理课程“三元系相图”教学探讨 何生平,董凌燕  
103 化学工程与工艺专业英语教学改革探讨 王丹等  
106 民族院校无机化学实验员工作之管见 张爱芹等

**主管单位:**  
中华人民共和国教育部  
**主办单位:**  
华东理工大学  
**出版发行:**  
《化工高等教育》编委会、编辑部  
**地址:**上海梅陇路 130 号  
华东理工大学 343 信箱  
**电话:**021-64252403  
**传真:**021-64252242  
**邮编:**200237  
**电子信箱:**gjyj@ecust.edu.cn  
**网址:**<http://hggz.chinajournal.net.cn>  
<http://hggdjj.periodicals.net.cn>

**印刷:**上海图宇印刷有限公司  
**出版日期:**2013 年 2 月 28 日  
**定价:**8.80 元

## Main Contents

Construction and Practice of Talents Collaborative Mode in the Consortia of Chemical Engineering ... Wu Yuanxin, et al. (1)
Exploration and Implication on Technology Transfer of East China University of Science and Technology ..... Zhang Guixin, Zhang Wuping (5)
The Design and Practice of Practice Teaching System for Outstanding Engineers in the Pharmaceutical Engineering ..... Luo Xiaoyan, et al. (8)
Survey of Employment Competition of Graduates Majored in Chemical Industry in Hubei Province ... Huang Yan, et al. (13)
Strategy of Creativity Training for Graduate Students Majored in Chemical Engineering and Technology ..... Wang Xuyun, et al. (18)
The Exploration and Practice of Training Full-time Engineering Master Postgraduates in the Field of Material Engineering ..... Zhang Xiang, Ju Shengui (21)
Faculty Research Contributes to Development of University Teaching Teams ..... He Jianbo, et al. (25)
Utilizing Platform of Industry Exhibition and Expanding Horizons of Engineering College Students ..... Pan Yongkang, et al. (29)
Building up Teaching Groups for Introduction to Chemical Engineering & Pharmacy Course ..... Wu Xuemei, et al. (32)
Exploration and Practice on the Teaching Content and Mode of Design Course of Chemical Principle ..... Xiao Wu, et al. (35)
Research and Practice on the Role of Fundamental Engineering Chemistry in the Interdisciplinary Talent Cultivation ..... Dong Zehua, et al. (38)
Teaching Reform in the Principles of Chemical Engineering for Bioengineering ..... Hu Hongbo, et al. (42)
Reflections on Practical Teaching in Pharmacy Engineering Major ..... Yan Xueming, et al. (45)
A Comprehensive and Synthetic Trace Chemistry Experiment: Synthesis and Mass Spectrometric Characterization of N-Butyl-4-bromo-1,8-naphthalimide ..... Sun Xueqin, Zou Lei (49)
Theory and Practice of Experiments in Polymer Physics ..... Wu Guangfeng, Yang Zhihui (51)
A Tentative Discussion on Practice of Experiment Teaching in Engineering Distance Education ..... Wang Chun, et al. (54)
The Calculation of Thermodynamic Properties for Binary Mixtures of Gases with SRK and PR Equations ..... Yu Zhijia, Yang Xiaotian (59)
Application of Curve-fitting Method for Calculating Surface Tension of Aqueous Solutions ..... Ju Xuehai (63)
Plate-by-plate and Simplified Calculations for Distillation Column by Application of Excel Method ..... Xu Jun, et al. (66)
The Classroom Teaching Practice for Training Student's Ability in Condition Monitoring and Fault Diagnosis ..... Zhou Shaoping (71)
Cultivation of Creative Thinking Ability in the Course of Inorganic Chemistry ..... Wang Fan, et al. (75)
Reform and Optimization of Classroom Teaching in Air Pollution Control Engineering ..... Tang Xiaoling, Ni Jinlong (78)
Practice and Reflection on Quality of Higher Education ..... Zhou Jiachun (81)
Exploration and Practice on Research-oriented Teaching Mode of Basic Chemistry Courses in Universities ..... Xu Hong, et al. (84)
Reflection of Learning Strategies in Organic Chemistry Teaching ..... Liang Jing, et al. (87)
Teaching of Organic Chemistry and Improvement of College Students' Scientific Literacy ..... Wang Zhaoxia, et al. (92)
The Teaching Discussion of Ternary Phase Diagram on the Course of "Metallurgical Principle" ..... He Shengping, Dong Lingyan (95)
Reform of Specialized English Course Teaching for Students in Chemical Engineering and Technology ..... Wang Dan, et al. (103)
A Discussion on Improving Inorganic Chemistry Laboratory Technician Working Quality for National Colleges ..... Zhang Aiqing, et al. (106)