

中国科学技术协会 主管  
中国化学会 主办  
北京师范大学  
全国中文核心期刊

ISSN 1003-3807  
CN 11-1923/O6  
美国化学文摘 (CA) 收录源期刊

# 化学教育

CHINESE JOURNAL OF CHEMICAL EDUCATION

★《中文核心期刊要目总览》收录期刊  
★中国核心期刊(遴选)数据库收录期刊  
★中国期刊全文数据库收录期刊

★中国学术期刊综合评价数据库统计源期刊  
★维普网收录源期刊  
★万方数据库收录期刊



邮发代号: 2-106

ISSN 1003-3807



9 771003 380154



19

第36卷  
2015

HUAXUE JIAOYU

万方数据

## 专论

- 化学课堂教学有效性的评价研究 ..... 郑长龙 付立海 何鹏 (1)
- 谈“化学微粒观”的内涵及其教育价值 ..... 张发新 (8)

## 课程与教材研讨

- 中德化学启蒙教材有机内容比较 ..... 陈广余 倪娟 (12)

## 新课程天地

- “分类法及其应用”在初、高中阶段的课程衔接研究 ..... 吴凯伦 靳莹 刘妍 (18)

## 教学研究

- 高中化学双语教学的实践与探索——以“二氧化硫的性质”教学为例 ..... 王峰 (22)
- 深入原电池原理本质 促进学生观念和能力的发展 ..... 徐敏 张建文 (27)
- 遵循认知规律 优化课堂教学——以“分子”教学为例 ..... 乐进军 潘立红 (32)
- 化学课堂中教学自由的不当表现及对策 ..... 王保强 许丽永 金娟 倪以松 (36)
- 化学微观表征的方法与教学策略 ..... 吴庆生 (41)

## 复习指导

- “前测备课-自主学习-后测评估”复习课教学模式的构建与应用——以一节高三化学二轮复习课教学为例 ..... 郭飞红 黄凤翔 (45)

## 调查报告

- 江苏高中化学教学方式的现状研究与思考 ..... 刘芳 (51)

## 信息技术与化学

- 运用 Word 自带工具绘制化学图形的实践 ..... 沈明祥 (55)

## 实验教学与教具研制

- “联合生产”技术观念引领下的校本化实验教学——以“化学镀铜和制作铜版画”为案例 ..... 龚源 (60)
- 氨气与氯气反应的实验设计 ..... 刘彩虹 张文兰 刘丽君 (64)
- 粗溴苯的水洗操作步骤的实验研究 ..... 郑博阳 董鸿志 (66)
- 绘制化学实验仪器与装置图应注意的几个问题 ..... 乔金锁 郭彦青 (69)
- 巧用滤纸做碳还原氧化铜实验 ..... 钟辉生 严康华 (71)

## 国内外信息

- 全国科普日活动与化学教育 ..... 熊言林 王晨希 (73)

## 化学史与化学史教育

- 民国时期“复兴”初高中化学教科书述评 ..... 郭震 (77)
- 第五届中国化学会关注中国西部地区中学化学教学发展论坛纪要 ..... (31)
- 欢迎订阅 2016 年《化学教育》 ..... (63)

本期责任编辑 陈会玲 张霄青

# CHINESE JOURNAL OF CHEMICAL EDUCATION

2015 Vol. 36 No. 19

Sponsored by Chinese Chemical Society and Beijing Normal University

## Special Topics

Research on Evaluation of Chemistry Classroom Teaching Effectiveness ..... ZHENG Chang-Long FU Li-Hai HE Peng (1)

Connotation and Educational Value of Views of Particulate Nature of Matter ..... ZHANG Fa-Xin (8)

## Investigation on Courses and Teaching Materials

Comparison of Organic Chemistry Contents in Enlightened Chemistry Textbook of China and Germany ..... CHEN Guang-Yu NI Juan (12)

## New Curriculum Forum

Study on Connection of "Classification and its Application" in Junior and Senior High School Chemistry ..... WU Kai-Lun JIN Ying LIU Yan (18)

## Teaching Research

Bilingual Teaching of "Properties of Sulfur Dioxide" in Senior High School Chemistry ..... WANG Feng (22)

Exploring the Nature of Primary Battery Principle and Promoting the Development of Students' Idea and Ability ..... XU Min ZHANG Jian-Wen (27)

Following Students' Cognitive Law and Optimizing Classroom Teaching of Molecule ..... LE Jin-Jun PAN Li-Hong (32)

Improper Performance and Countermeasures of Teaching Freedom in Chemistry Classroom ..... WANG Bao-Qiang XU Li-Yong JIN Juan NI Yi-Song (36)

Teaching Methods and Strategies for Microscopic Representation of Chemistry ..... WU Qing-Sheng (41)

## Review Guide

Construction and Application of "Pretest Preparation-Autonomous Learning-Posttest Assessment" Teaching Mode ..... GUO Fei-Hong HUANG Feng-Xiang (45)

## Findings Report

Status of Chemistry Teaching Methods in Senior High School in Jiangsu Province ..... LIU Fang (51)

## Information Technology and Chemistry

Drawing Chemical Graphics Using Word 2013 Drawing Tools ..... SHEN Ming-Xiang (55)

## Experiment Teaching and Teaching Aid Development

School-based Experiment Teaching Led by Concept of Joint Production; Electroless Copper Plating and Production of Copper Prints ..... GONG Yuan (60)

Experiment Design of Reaction between Ammonia and Chlorine ..... LIU Cai-Hong ZHANG Wen-Lan LIU Li-Jun (64)

Experimental Study on Washing Steps of Crude Bromobenzene ..... ZHENG Bo-Yang DONG Hong-Zhi (66)

Several Problems on Drawing Chemical Experiment Instrument and Device ..... QIAO Jin-Suo GUO Yan-Qing (69)

Experiment of Reduction of Cupric Oxide by Carbon in Filter Paper ..... ZHONG Hui-Sheng YAN Kang-Hua (71)

## Domestic and Overseas Information

Activities on National Science Popularization Day and Chemical Education ..... XIONG Yan-Lin WANG Chen-Xi (73)

## History of Chemistry and Chemical History Education

Commentary on "Fuxing" Chemistry Textbooks for Middle School in the Republican China ..... GUO Zhen (77)

# 化 学 教 育

(半月刊·1980年创刊)

2015年 第36卷 第19期 10月2日出版

主管单位 中国科学技术协会  
主办单位 中国化学会 北京师范大学  
编辑出版 《化学教育》编辑部  
编辑部地址 北京师范大学化学楼217室  
邮政编码 100875  
电话(传真) 010-58807875  
电子信箱 hxjy-jce@263.net  
网 址 http://www.hxjy.org

顾 问 刘知新  
主 编 刘正平  
副 主 编 李艳梅 孙世刚 王 磊 王祖浩  
杨振忠 郑长龙 朱玉军(专职)  
刊名题字 戴安邦  
印刷装订 河北天普润印刷厂  
总发行处 中国邮政集团公司北京市报刊发行局  
订 阅 全国各地邮局,或本刊编辑部

刊号 ISSN 1003-3807  
CN 11-1923/O6

国内邮发代号 2-106

国外发行代号 M3070

定价 12.00元

# CHINESE JOURNAL OF CHEMICAL EDUCATION

2015 Vol. 36 No. 19

Sponsored by Chinese Chemical Society and Beijing Normal University

## Special Topics

Research on Evaluation of Chemistry Classroom Teaching Effectiveness ..... ZHENG Chang-Long FU Li-Hai HE Peng (1)

Connotation and Educational Value of Views of Particulate Nature of Matter ..... ZHANG Fa-Xin (8)

## Investigation on Courses and Teaching Materials

Comparison of Organic Chemistry Contents in Enlightened Chemistry Textbook of China and Germany ..... CHEN Guang-Yu NI Juan (12)

## New Curriculum Forum

Study on Connection of "Classification and its Application" in Junior and Senior High School Chemistry ..... WU Kai-Lun JIN Ying LIU Yan (18)

## Teaching Research

Bilingual Teaching of "Properties of Sulfur Dioxide" in Senior High School Chemistry ..... WANG Feng (22)

Exploring the Nature of Primary Battery Principle and Promoting the Development of Students' Idea and Ability ..... XU Min ZHANG Jian-Wen (27)

Following Students' Cognitive Law and Optimizing Classroom Teaching of Molecule ..... LE Jin-Jun PAN Li-Hong (32)

Improper Performance and Countermeasures of Teaching Freedom in Chemistry Classroom ..... WANG Bao-Qiang XU Li-Yong JIN Juan NI Yi-Song (36)

Teaching Methods and Strategies for Microscopic Representation of Chemistry ..... WU Qing-Sheng (41)

## Review Guide

Construction and Application of "Pretest Preparation-Autonomous Learning-Posttest Assessment" Teaching Mode ..... GUO Fei-Hong HUANG Feng-Xiang (45)

## Findings Report

Status of Chemistry Teaching Methods in Senior High School in Jiangsu Province ..... LIU Fang (51)

## Information Technology and Chemistry

Drawing Chemical Graphics Using Word 2013 Drawing Tools ..... SHEN Ming-Xiang (55)

## Experiment Teaching and Teaching Aid Development

School-based Experiment Teaching Led by Concept of Joint Production; Electroless Copper Plating and Production of Copper Prints ..... GONG Yuan (60)

Experiment Design of Reaction between Ammonia and Chlorine ..... LIU Cai-Hong ZHANG Wen-Lan LIU Li-Jun (64)

Experimental Study on Washing Steps of Crude Bromobenzene ..... ZHENG Bo-Yang DONG Hong-Zhi (66)

Several Problems on Drawing Chemical Experiment Instrument and Device ..... QIAO Jin-Suo GUO Yan-Qing (69)

Experiment of Reduction of Cupric Oxide by Carbon in Filter Paper ..... ZHONG Hui-Sheng YAN Kang-Hua (71)

## Domestic and Overseas Information

Activities on National Science Popularization Day and Chemical Education ..... XIONG Yan-Lin WANG Chen-Xi (73)

## History of Chemistry and Chemical History Education

Commentary on "Fuxing" Chemistry Textbooks for Middle School in the Republican China ..... GUO Zhen (77)

# 化 学 教 育

(半月刊·1980年创刊)

2015年 第36卷 第19期 10月2日出版

主管单位 中国科学技术协会  
主办单位 中国化学会 北京师范大学  
编辑出版 《化学教育》编辑部  
编辑部地址 北京师范大学化学楼217室  
邮政编码 100875  
电话(传真) 010-58807875  
电子信箱 hxjy-jce@263.net  
网 址 http://www.hxjy.org

顾 问 刘知新  
主 编 刘正平  
副 主 编 李艳梅 孙世刚 王 磊 王祖浩  
杨振忠 郑长龙 朱玉军(专职)  
刊名题字 戴安邦  
印刷装订 河北天普润印刷厂  
总发行处 中国邮政集团公司北京市报刊发行局  
订 阅 全国各地邮局,或本刊编辑部

刊号 ISSN 1003-3807  
CN 11-1923/O6

国内邮发代号 2-106

国外发行代号 M3070

定价 12.00元