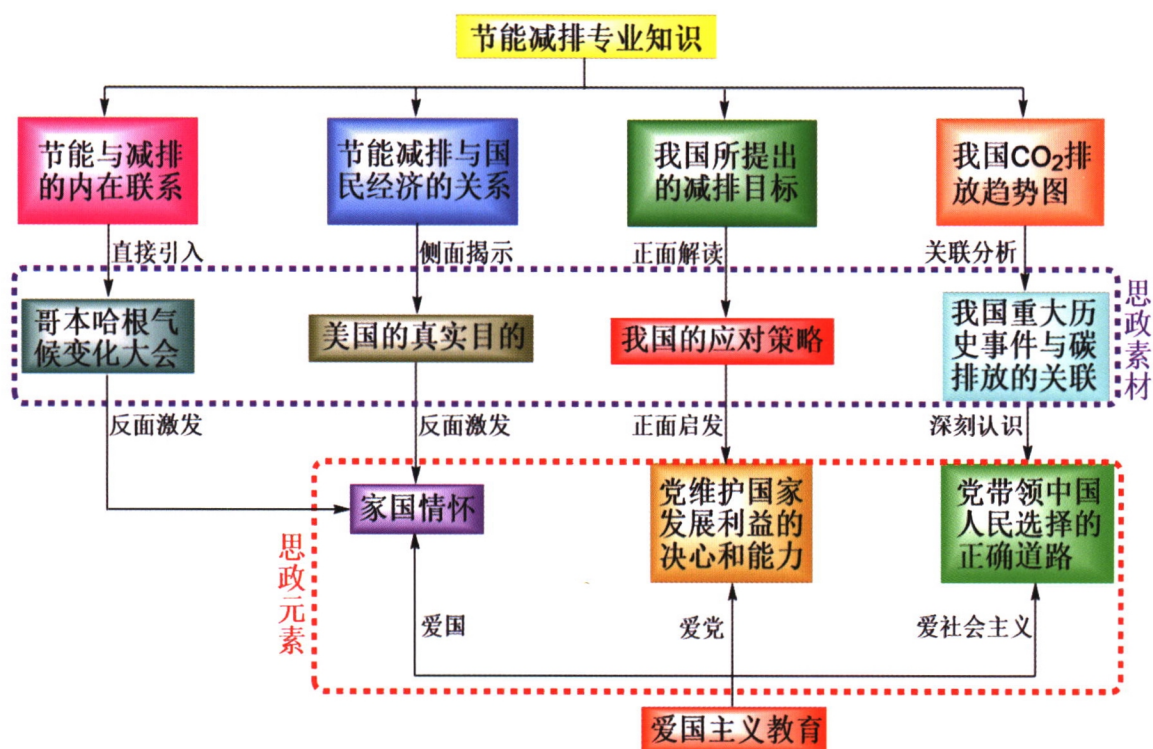


化学教育 (中英文)

Chinese Journal of Chemical Education

2022年 第43卷 第6期 Vol.43 No.6



邮发代号: 2-106

ISSN 1003-3807



HUAXUE JIAOYU

万方数据



CHINESE
CHEMICAL
SOCIETY



主管: 中国科学技术协会

主办: 中国化学会

北京师范大学

化学·生活·社会

新型绿色植物生长调节剂——芸苔素内酯的研究进展·····孙陈铭 蔡岩 苗志伟(1)

课程·教材·评价

以创新能力培养为导向的分析化学课程教学改革——以应用化学专业为例·····章平平 甘莉 田丽 丁宗庆 唐传球(9)

师范类专业认证下地方高校化学专业人才培养模式研究·····曾造 李金海 曾兵芳(14)

理论教学

体现“两性一度”的无机化学卤族元素课程设计·····马艺 侯向阳 胡满成 高胜利 王长号(21)

解读生命健康及抗击新冠疫情中的表界面物理化学知识·····吴晓宏 王群 卢松涛 李杨(28)

化工类专业课教学中开展爱国主义教育的探索——以“节能减排与国家利益”专题教学为例·····高家俊 刘捷 熊芸 李辉 郭嘉 王雪梅(33)

翻转课堂教学模式下知识迁移能力的培养——以“复杂氧化还原电对电极电势的计算”为例·····梁爱琴 钱备 宁静 宋祖伟(39)

哲学思想在物理化学课堂上的体现·····杨桦(45)

新背景下多元教学模式在无机化学教学中的实践与探索·····樊红霞 牛子嵘 周花蕾 孙长艳 董彬 李文军(49)

实验教学

分光光度法测定亚甲基蓝溶液浓度线上实验设计·····周丹娜 罗涛 王震华(55)

温差数据采集系统的研制及其在反应组分燃烧热测量方法测定水杨酸乙酰化反应焓实验中的应用·····赵明坚 王国平 王永尧 钱文霞 雷群芳 方文军(60)

微流控纸芯片的加工及其分析应用的实验设计·····丁宗庆 曹俊 黄巧雨(66)

综合创新实验:双官能团配体 Zhaophos 催化 3-芳基-3-乙酰氨基丙烯酸甲酯不对称氢化反应·····古国贤 程菲 杨延琴 段中余(71)

EDTA 标定实验中关键试剂“量”的探究·····魏巧华 孙瑞卿 许紫婷(77)

有机化学创新设计性实验“甲基化反应”的改进·····肖朵朵 李翠妍 熊敏东 叶华清 曾志威 周建敏(83)

秸秆水热液化制备生物质液体燃料的综合性实验设计·····王枫 赵福田 张会菊(86)

弹性蛋白酶生物催化酯水解的综合实验设计·····孙琦 王刚 何照林 奚江波 袁华 尹传奇(91)

教师教育

化学师范生教育自传文本的数据挖掘与反思评价·····陈凯 蒋怡 马宏佳(96)

非化学专业化学教育

分子量条带用蛋白质·····王志鹏 蒋振雄 车子良 马新雨 王鹏(105)

药学专业物理化学融入课程思政的设计与探索·····刘睿(111)

研究生教育

研究生教育中的矛盾分析与探讨·····王奇峰(116)

调研报告

物理化学线上线下结合教学模式的现状与对策·····阮秀琴 司承运 张正华 李良 徐开俊(120)

问题讨论与思考

电极电势:从电化学势说起·····王雪飞 高鹏 高美 廖知常 王卓(126)

2022年《化学教育》订阅通知·····(20)

封面图片·····(35)

本期责任编辑 杨金瑞 齐娜

CHINESE JOURNAL OF CHEMICAL EDUCATION

2022 Vol. 43 No. 6

Sponsored by Chinese Chemical Society and Beijing Normal University

Chemistry-Life-Society

Research Progress of New Type Green Plant Growth Regulator: Brassinolide SUN Chen-Ming CAI Yan MIAO Zhi-Wei (1)

Curriculum-Teaching Materials-Assessment

Preliminary Study on the Teaching Reform of Analytical Chemistry Course Guided by the Cultivation of Innovation Ability Taking Applied Chemistry as Example ZHANG Ping-Ping GAN Li TIAN Li DING Zong-Qing TANG Chuan-Qiu (9)
Study on Talent Cultivation Mode of Local Colleges for Chemistry Specialty Under Normal Professional Certification ZENG Zao LI Jin-Hai ZENG Bing-Fang (14)

Theory Teaching

Embodying "Two Properties and One Degree" in the Curriculum Design of Halogen Element in Inorganic Chemistry Teaching MA Yi HOU Xiang-Yang HU Man-Cheng GAO Sheng-Li WANG Chang-Hao (21)
Interpretation of Anti Epidemic Research Elements From the Perspective of Surface and Interface Chemistry WU Xiao-Hong WANG Qun LU Song-Tao LI Yang (28)
Exploration of Patriotism Education in Professional Course Teaching of Chemical Engineering: Taking Thematic Teaching of "Energy-Saving and Emission-Reduction" and National Interests as Example GAO Jia-Jun LIU Jie XIONG Yun LI Hui GUO Jia WANG Xue-Mei (33)
Cultivation of Knowledge Transfer Ability in Flipped Classroom Teaching Mode Taking Calculation of Complex Redox Electrode Potential as Example LIANG Ai-Qin QIAN Bei NING Jing SONG Zu-Wei (39)
Reflection of Philosophy in Physical Chemistry Classroom YANG Hua (45)
Practice and Exploration of Multiple Teaching Modes in Inorganic Chemistry Under New Situation FAN Hong-Xia NIU Zi-Rong ZHOU Hua-Lei SUN Chang-Yan DONG Bin LI Wen-Jun (49)

Experiment Teaching

Online Teaching Experiment Design of Spectrophotometric Determination of Methylene Blue Solution Concentration ZHOU Dan-Na LUO Tao WANG Zhen-Hua (55)
Development of Data Acquisition System for Temperature Change and Its Application to "Determination of Reaction Enthalpy of Acetylation of Salicylic Acid by Measurement of Combustion Heat of Reaction Components" ZHAO Ming-Jian WANG Guo-Ping WANG Yong-Yao QIAN Wen-Xia LEI Qun-Fang FANG Wen-Jun (60)
Experimental Design of Paper-Based Microfluidic Chip Processing and Its Analytical Application DING Zong-Qing CAO Jun HUANG Qiao-Yu (66)
Comprehensive Innovative Experiment: Asymmetric Hydrogenation of Methyl (Z)-3-Acetamido-3-Substituted Acrylate by Bi-functional Catalyst Zhaophos-Rh GU Guo-Xian CHENG Fei YANG Yan-Qin DUAN Zhong-Yu (71)
Exploration of the Key Reagent "Quantity" in the EDTA Concentration Calibration Experiment WEI Qiao-Hua SUN Rui-Qing XU Zi-Ting (77)
Improvement of Innovative Design Organic Chemistry Experiment of Methylation Reaction XIAO Duo-Duo LI Cui-Yan XIONG Min-Dong YE Hua-Qing ZENG Zhi-Wei ZHOU Jian-Min (83)
Comprehensive Experimental Design of Biomass Liquid Fuel Production by Hydrothermal Liquefaction of Crop Straw WANG Feng ZHAO Fu-Tian ZHANG Hui-Ju (86)
Comprehensive Experimental Design of Ester Biohydrolysis Catalyzed by Elastase SUN Qi WANG Gang HE Zhao-Lin XI Jiang-Bo YUAN Hua YIN Chuan-Qi (91)

Teacher Education

Data Mining and Reflective Evaluation of Educational Autobiographical Texts for Pre-Service Chemistry Teacher CHEN Kai JIANG Yi MA Hong-Jia (96)

Chemical Education for Non-Chemistry Majors

Discussion on Protein Molecular Weight Markers WANG Zhipeng A JIANG Zhen-Xiong CHE Zi-Liang MA Xin-Yu WANG Peng (105)
Design and Exploration of Integrating Curriculum Ideological and Political Education into Physical Chemistry for Pharmacy Major LIU Rui (111)

Postgraduate Education

Contradiction Analysis and Discussion of Graduate Education WANG Qi-Feng (116)

Investigation Report

Situation and Strategies of Physical Chemistry Lectures Using Combined On-Line & On-Site Approaches RUAN Xiu-Qin SI Cheng-Yun ZHANG Zheng-Hua LI Liang XU Kai-Jun (120)

Discussion and Thinking of Questions

Electrode Potential: From Electrochemical Potential WANG Xue-Fei GAO Peng GAO Mei LIAO Zhi-Chang WANG Zhuo (126)

化学教育(中英文)

(半月刊·1980年创中文刊·2017年变更为中英文刊)

2022年 第43卷 第6期 3月18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(中英文)》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
咨询信箱 hxjy-jce@263.net
投稿网址 http://www.hxjy.chemsoc.org.cn

顾问 刘知新
主编 刘正平
副主编 姜雪峰 施展 孙世刚 王磊
王祖浩 杨屹 郑长龙 朱玉军(专职)
刊名题字 戴安邦
印刷装订 保定市海天印务有限公司
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

刊号 ISSN 1003-3807
CN 10-1515/O6

国内邮发代号 2-106

国外发行代号 M3070

定价 36.00元

CHINESE JOURNAL OF CHEMICAL EDUCATION

2022 Vol. 43 No. 6

Sponsored by Chinese Chemical Society and Beijing Normal University

Chemistry-Life-Society

Research Progress of New Type Green Plant Growth Regulator: Brassinolide SUN Chen-Ming CAI Yan MIAO Zhi-Wei (1)

Curriculum-Teaching Materials-Assessment

Preliminary Study on the Teaching Reform of Analytical Chemistry Course Guided by the Cultivation of Innovation Ability Taking Applied Chemistry as Example ZHANG Ping-Ping GAN Li TIAN Li DING Zong-Qing TANG Chuan-Qiu (9)
Study on Talent Cultivation Mode of Local Colleges for Chemistry Specialty Under Normal Professional Certification ZENG Zao LI Jin-Hai ZENG Bing-Fang (14)

Theory Teaching

Embodying "Two Properties and One Degree" in the Curriculum Design of Halogen Element in Inorganic Chemistry Teaching MA Yi HOU Xiang-Yang HU Man-Cheng GAO Sheng-Li WANG Chang-Hao (21)
Interpretation of Anti Epidemic Research Elements From the Perspective of Surface and Interface Chemistry WU Xiao-Hong WANG Qun LU Song-Tao LI Yang (28)
Exploration of Patriotism Education in Professional Course Teaching of Chemical Engineering: Taking Thematic Teaching of "Energy-Saving and Emission-Reduction" and National Interests as Example GAO Jia-Jun LIU Jie XIONG Yun LI Hui GUO Jia WANG Xue-Mei (33)
Cultivation of Knowledge Transfer Ability in Flipped Classroom Teaching Mode Taking Calculation of Complex Redox Electrode Potential as Example LIANG Ai-Qin QIAN Bei NING Jing SONG Zu-Wei (39)
Reflection of Philosophy in Physical Chemistry Classroom YANG Hua (45)
Practice and Exploration of Multiple Teaching Modes in Inorganic Chemistry Under New Situation FAN Hong-Xia NIU Zi-Rong ZHOU Hua-Lei SUN Chang-Yan DONG Bin LI Wen-Jun (49)

Experiment Teaching

Online Teaching Experiment Design of Spectrophotometric Determination of Methylene Blue Solution Concentration ZHOU Dan-Na LUO Tao WANG Zhen-Hua (55)
Development of Data Acquisition System for Temperature Change and Its Application to "Determination of Reaction Enthalpy of Acetylation of Salicylic Acid by Measurement of Combustion Heat of Reaction Components" ZHAO Ming-Jian WANG Guo-Ping WANG Yong-Yao QIAN Wen-Xia LEI Qun-Fang FANG Wen-Jun (60)
Experimental Design of Paper-Based Microfluidic Chip Processing and Its Analytical Application DING Zong-Qing CAO Jun HUANG Qiao-Yu (66)
Comprehensive Innovative Experiment: Asymmetric Hydrogenation of Methyl (Z)-3-Acetamido-3-Substituted Acrylate by Bi-functional Catalyst Zhaophos-Rh GU Guo-Xian CHENG Fei YANG Yan-Qin DUAN Zhong-Yu (71)
Exploration of the Key Reagent "Quantity" in the EDTA Concentration Calibration Experiment WEI Qiao-Hua SUN Rui-Qing XU Zi-Ting (77)
Improvement of Innovative Design Organic Chemistry Experiment of Methylation Reaction XIAO Duo-Duo LI Cui-Yan XIONG Min-Dong YE Hua-Qing ZENG Zhi-Wei ZHOU Jian-Min (83)
Comprehensive Experimental Design of Biomass Liquid Fuel Production by Hydrothermal Liquefaction of Crop Straw WANG Feng ZHAO Fu-Tian ZHANG Hui-Ju (86)
Comprehensive Experimental Design of Ester Biohydrolysis Catalyzed by Elastase SUN Qi WANG Gang HE Zhao-Lin XI Jiang-Bo YUAN Hua YIN Chuan-Qi (91)

Teacher Education

Data Mining and Reflective Evaluation of Educational Autobiographical Texts for Pre-Service Chemistry Teacher CHEN Kai JIANG Yi MA Hong-Jia (96)

Chemical Education for Non-Chemistry Majors

Discussion on Protein Molecular Weight Markers WANG Zhipeng A JIANG Zhen-Xiong CHE Zi-Liang MA Xin-Yu WANG Peng (105)
Design and Exploration of Integrating Curriculum Ideological and Political Education into Physical Chemistry for Pharmacy Major LIU Rui (111)

Postgraduate Education

Contradiction Analysis and Discussion of Graduate Education WANG Qi-Feng (116)

Investigation Report

Situation and Strategies of Physical Chemistry Lectures Using Combined On-Line & On-Site Approaches RUAN Xiu-Qin SI Cheng-Yun ZHANG Zheng-Hua LI Liang XU Kai-Jun (120)

Discussion and Thinking of Questions

Electrode Potential: From Electrochemical Potential WANG Xue-Fei GAO Peng GAO Mei LIAO Zhi-Chang WANG Zhuo (126)

化学教育(中英文)

(半月刊·1980年创中文刊·2017年变更为中英文刊)

2022年 第43卷 第6期 3月18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(中英文)》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
咨询信箱 hxjy-jce@263.net
投稿网址 http://www.hxjy.chemsoc.org.cn

顾问 刘知新
主编 刘正平
副主编 姜雪峰 施展 孙世刚 王磊
王祖浩 杨屹 郑长龙 朱玉军(专职)
刊名题字 戴安邦
印刷装订 保定市海天印务有限公司
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

刊号 ISSN 1003-3807
CN 10-1515/O6

国内邮发代号 2-106

国外发行代号 M3070

定价 36.00元