



目次

今日化学

功能多肽在肿瘤治疗中的应用及研究进展 刘传军, 张驰, 张先正 (1)

教学研究与改革

基于专业课程培养本科生创新精神和科研能力——以无机合成化学为例 郭丽, 周志强, 曹晶晶, 陈大树, 韩福芹 (8)

智慧课堂在分析化学碎片化教学中的探索 王薇, 周宝吟, 徐保明, 任家强 (13)

基于智慧教育理念大学化学教学模式探索实践 郑超 (21)

理论教学与实践教学互相渗透的物理化学教学模式探讨 王女, 赵勇, 刘兆阅, 田东亮 (26)

问题导向教学法在基础化学分析实验中的应用 张卓旻, 黄路, 李攻科 (32)

高等教育国际化背景下仪器分析实验(全英文)教学的实践与体会 冯霞, 常静, 刘俊吉, 魏玉萍 (37)

环境科学与工程专业物理化学课程教与学的探讨

..... 刘国坤, 邹义松, 陈甘雨, 王炬勇, 郑红, 谢泽中, 卢江龙, 周志明, 刘涛, 罗思恒 (41)

知识介绍

更深度的“照相”技术——质谱成像的发展与应用 杨迎晨, 陈企发, 夏炎 (47)

科普

走进臭豆腐的化学世界 李夏蕾, 赖勇杰, 李荀 (54)

化学实验

以举办化学实验竞赛为契机, 推动化学实验教学发展 张瑶 (57)

通过实验教学加深对理论知识的理解——以“气相色谱实验”教学为例

..... 钱俊红, 胡坪, 周蕾, 张文清, 邹冬璇, 王燕 (61)

最大泡压法测定吐温-80的表面参数及亲水基分子截面积 余丹妮, 谷正昊, 韩永虎 (67)

两类含有吡唑酮或喹啉酮结构的色满衍生物的合成与结构表征——羰基与醛基的反应活性及化学选择性

..... 张烜阁, 陆天宇, 蔡岩, 燕子红, 苗志伟 (76)

由邻苯二甲酸二乙酯制备水合茚三酮的反应机理探讨 张曼, 周俊豪, 华宇成, 任相伟, 赵温涛, 张万东 (82)

用SolidWorks软件辅助设计物理化学实验设备 樊玲, 尚贞锋 (89)

基于微信公众号构建无机化学实验微课平台的研究与探索 张玮玮, 弓爱君, 邱丽娜 (94)

师生笔谈

从知识到智慧: 有深度的教和学——化学生物交叉班分析化学课程教学思考 钟鸿英 (99)

以去氢鸟孢霉素NMR结构解析讲授本科生波谱分析课程 董建伟, 李雪娇, 蔡乐, 缪应纯 (113)

从分子图像到热力学框架——物理化学教学的探讨与实践 姚加, 彭笑刚 (120)

国外化学教育

国外高分子化学英文教材研究 邹华 (128)

竞赛园地

第33届中国化学奥林匹克(初赛)试题解析 柳晗宇 (134)

CONTENTS

Chemistry Today

Application and Progress of Functional Peptides in Tumor Therapy Chuanjun Liu, Chi Zhang, Xianzhang Zhang (1)

Study and Reform of Chemical Education

Teaching Reform of Inorganic Synthesis Chemistry Aiming at Innovative Spirit Cultivation and Scientific Research Ability

Training Li Guo, Zhiqiang Zhou, Jingjing Cao, Dashu Chen, Fuqin Han (8)

Exploration of the Intelligent Classroom Applied in Analytical Chemistry by Fragmented Teaching

..... Wei Wang, Baohan Zhou, Baoming Xu, Jiaqiang Ren (13)

Exploration and Practice on Teaching Mode of General Chemistry Based on Smarter Education Chao Zheng (21)

Discussion on Teaching Modes of Physical Chemistry between Theoretical Teaching and Laboratory Course

..... Nü Wang, Yong Zhao, Zhaoyue Liu, Dongliang Tian (26)

Application of Problem Based Learning Method in Basic Laboratory Course for Chemical Analysis

..... Zhuomin Zhang, Lu Huang, Gongke Li (32)

Experience on Instrumental Analysis Laboratory Teaching in English for International Students in Tianjin University

..... Xia Feng, Jing Chang, Junji Liu, Yuping Wei (37)

Exploring Teaching & Learning of Physical Chemistry Course for Environmental Science & Engineering Major

..... Guokun Liu, Yisong Zou, Ganyu Chen, Juyong Wang, Hong Zheng, Zezhong Xie,
Jianglong Lu, Zhiming Zhou, Tao Liu, Siheng Luo (41)**Survey of Chemistry**

More in-Depth "Photography" Technology: The Development and Application of Mass Spectrometry Imaging

..... Yingchen Yang, Qifa Chen, Yan Xia (47)

Science Education

Entering the Chemistry World of Fermented Stinky Tofu Xialei Li, Yongjie Lai, Xun Li (54)

Chemistry Laboratory

Promoting the Development of Chemistry Laboratory Teaching by Organizing Chemistry Experimental Competition

..... Yao Zhang (57)

Better Understanding Theoretical Knowledge through Laboratory Teaching: Taking "Gas Chromatography Experiment"

as an Example Junhong Qian, Ping Hu, Lei Zhou, Wenqing Zhang, Dongxuan Zou, Yan Wang (61)

Determination of Surface Parameters of Tween-80 and Cross-Sectional Area of Hydrophilic Molecules by Maximum Bubble

Pressure Method Danni Yu, Zhenghao Gu, Yonghu Han (67)

Synthesis and Structural Characterization of Two Types of Chromene Derivatives Containing Pyrazolone or Indol-2-one:

Reaction and Chemoselectivity of Carbonyl and Aldehyde Groups

..... Xuange Zhang, Tianyu Lu, Yan Cai, Zihong Yan, Zhiwei Miao (76)

Mechanisms Study of Ninhydrin Synthesis from Diethyl Phthalate

..... Man Zhang, Junhao Zhou, Yucheng Hua, Xiangwei Ren, Wentao Zhao, Wandong Zhang (82)

Applications of SolidWorks Software for Design Equipments for Physical Chemistry Experiments

..... Ling Fan, Zhenfeng Shang (89)

Research and Exploration on the Construction of Inorganic Chemistry Laboratory Micro-Course Platform Based on WeChat

Public Account Weiwei Zhang, Aijun Gong, Lina Qiu (94)

Between Teacher and Student

From Knowledge to Intelligence: In-Depth Teaching and Learning — The Design and Practice of "Analytical Chemistry"

for Interdisciplinary Program in Chemical Biology Hongying Zhong (99)

Teaching Undergraduate Student Curriculum "Spectral Analysis" by the NMR Analysis of Dehydrocurcumin

..... Jianwei Dong, Xuejiao Li, Le Cai, Yingchun Miao (113)

Thermodynamics Based on Molecular Image: Exploration and Practice of Physical Chemistry Teaching

..... Jia Yao, Xiaogang Peng (120)

Chemistry Education-International

Study on English Textbooks on Polymer Chemistry from Overseas Hua Zou (128)

Chemical Olympiad Competition

Guided Solution to the 33th Chinese Chemistry Olympiad (Preliminary Test) Hanyu Liu (134)