

CHINA MEASUREMENT & TEST

中国测试

ISSN 1674-5124
CN 51-1714/TB

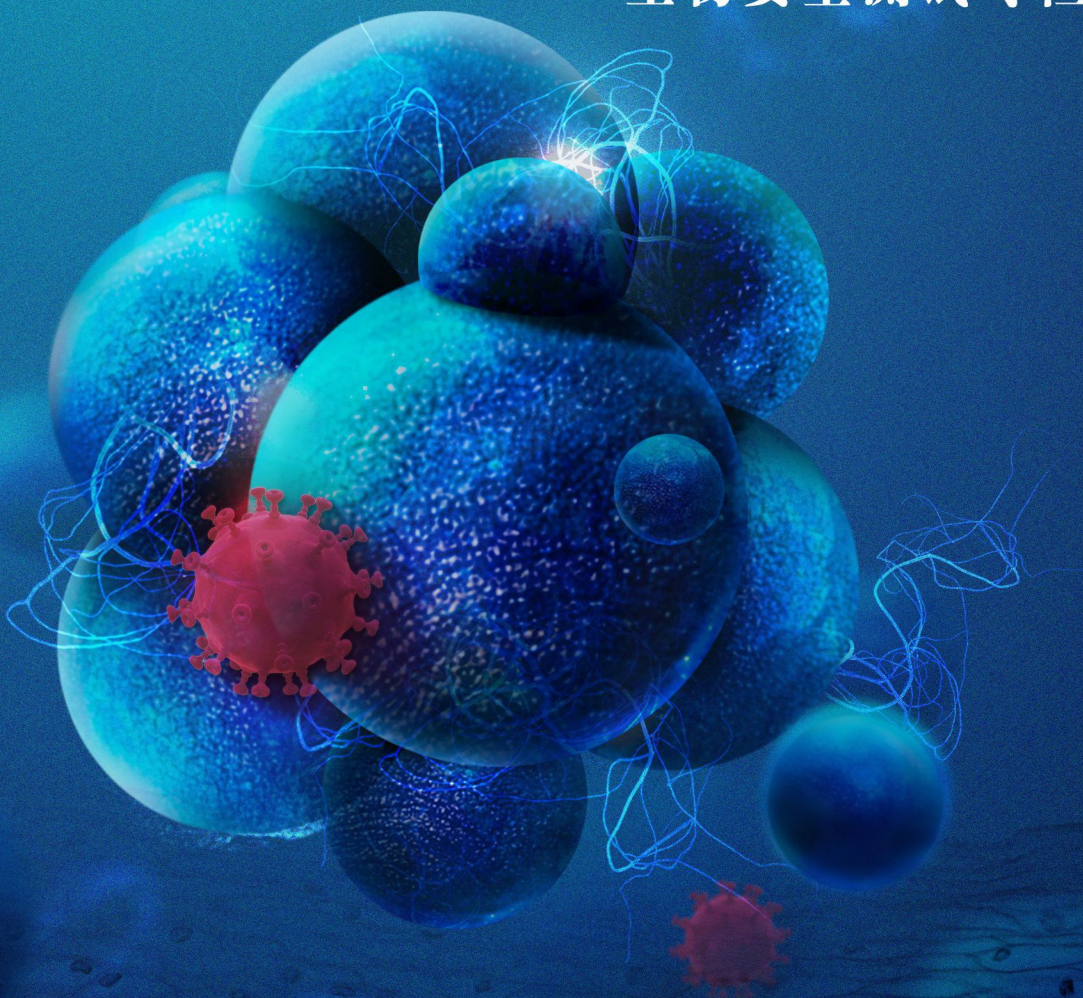
10

October
2020

ZHONGGUO CESHU

第46卷 总第267期 2020年10月

生物安全测试专栏



中文核心期刊

中国科技核心期刊

中国科技论文统计源期刊

中国学术期刊综合评价数据库全文收录期刊

中国期刊（光盘版）全文收录期刊

《万方数据——数字化期刊群》全文收录期刊

RCCSE中国核心学术期刊（A）

美国《化学文摘》（CA）收录期刊

美国《剑桥科学文摘（工程技术）》（CSA）收录期刊

美国《剑桥科学文摘（自然科学）》（CSA）收录期刊

俄罗斯《文摘杂志》收录期刊

美国《乌利希期刊指南》收录期刊

主管：中国测试技术研究院



万方数据

目次

生物安全测试(专栏)

- | | | |
|--|------------------|----|
| 浅谈生命科学时代对计量和标准带来的全新挑战——专访华大基因 CEO 尹烨 | 姜华艳, 李倩一 | 1 |
| 染色质转座酶可及性测序研究与数据分析 | 廖彬, 杨佳怡, 陈桂芳, 等 | 4 |
| 蔬菜中食源性病毒富集方法研究 | 阮佳, 张薇薇, 刘鑫, 等 | 11 |
| 生物气溶胶监测仪校准方法的研究 | 潘一廷, 张国城, 杨振琪, 等 | 18 |
| HPLC 分析灵芝指纹图谱及体外抗肿瘤活性的谱效关系 | 许晓燕, 余梦瑶, 罗霞 | 23 |
| 转基因玉米 MON863 质粒 DNA 双重数字 PCR 定值方法的建立 | 马丽侠, 周李华, 蒋子敬, 等 | 28 |
| UPLC/Q-TOF/MS 分析研究 <i>P. petiolaris</i> 抑菌提取物 | 刘怡, 易思君, 李姝, 等 | 37 |
| 固相萃取结合 UPLC-MS/MS 法测定人血浆中克拉霉素浓度及其药代动力学研究 | 胡岚岚, 张乐, 汤建林 | 43 |
| 用于培养基生长率评价的大肠杆菌标准物质研制 | 刘思渊, 王梓权, 甄啸啸, 等 | 48 |
| 肿瘤血管抑制剂 DX1002 大鼠生物利用度的 UPLC-MS/MS 法研究 | 钟卓伶, 王睿, 雍智全, 等 | 54 |
| 电化学生物传感器在高致病性病毒检测中的应用 | 齐佳伟, 许丽, 闻艳丽, 等 | 59 |
| kiss-1 基因 rs5780218 和 rs4889 多态性与多囊卵巢综合征的相关性研究 | 曹婷, 杨忠 | 72 |
| 四川典型水域表层水体抗生素残留特征与风险评估 | 巫明毫, 沙菁洲, 侯永斌, 等 | 78 |
| 扩展性无创产前筛查在胎儿染色体非整倍体筛查中的临床应用 | 马婧, 刘东云, 王雪燕, 等 | 86 |
| 利用核酸检测评估新冠肺炎病人定点救治医院病房环境污染水平 | 黄玉兰, 杨小蓉, 曾林子, 等 | 93 |
| 聚合酶链反应分析仪计量测试技术探讨 | 蒋子敬, 周李华, 马丽侠, 等 | 98 |

测控技术

- | | | |
|---------------------------------|------------------|-----|
| 一种非线性 Chirp 信号模态分解算法研究 | 句海洋, 王新华, 金浩, 等 | 103 |
| 无人艇自主靠泊控制系统设计 | 黄烨笙, 徐郑攀, 陈远明, 等 | 111 |
| 并联变频器侧高频谐波抑制与移相角计算 | 陈素霞, 李娜娜, 黄全振, 等 | 118 |
| 基于 MED 辅助特征提取 CNN 模型的列车轴承故障诊断方法 | 杨劼立, 林建辉, 谌亮 | 124 |
| 基于振动特性仿真的机翼单向阀试验改进 | 谢春稳, 杨文平, 郝新纲, 等 | 130 |

性能测试

- | | | |
|------------------------------|-----------------|-----|
| 汽车气压盘式制动器性能在线检测系统研制 | 竺元昊, 范伟军, 郭斌, 等 | 138 |
| 风电并网引起潮流分布对电力系统小干扰功角稳定性的影响研究 | 刘多禄, 马林, 王炳文 | 144 |
| 某型钢索金属截面积损失试验研究 | 曾权, 王悦民, 李梦杰, 等 | 151 |
| 基于守时原理的无线压降测试技术研究 | 李磊, 杨光, 何泽昊, 等 | 157 |

CONTENTS

Biological Safety Tests(Column)

- A preliminary analysis on the new challenges faced by metrology and standard in the era of life science——interviewing Yinye, CEO of BGI
JIANG Huayan, LI Qianyi 1
- Research progress and data analysis of assay for transposase-accessible chromatin with high-throughput sequencing
LIAO Bin, YANG Jiayi, CHEN Guifang, et al 4
- Study on concentration of foodborne viruses in vegetables
RUAN Jia, ZHANG Weiwei, LIU Xin, et al 11
- Research on calibration method of bioaerosol monitor instrument
PAN Yiting, ZHANG Guocheng, YANG Zhenqi, et al 18
- Analysis of fingerprint and antitumor activity in vitro of *Ganoderma lucidum* by HPLC
XU Xiaoyan, YU Mengyao, LUO Xia 23
- Method for determining the value of genetically modified maize MON863 plasmid DNA by duplex digital PCR
MA Lixia, ZHOU Lihua, JIANG Zijiang, et al 28
- Detection of antimicrobial extracts of *P. petiolaris* by UPLC/Q-TOF/MS
LIU Yi, YI Sijun, LI Shu, et al 37
- Quantification of clarithromycin in human plasma by UPLC-MS/MS with solid-phase extraction and its pharmacokinetic study
HU Lanlan, ZHANG Le, TANG Jianlin 43
- Development of reference materials of *Escherichia coli* for productivity ratio evaluation of microbiological media
LIU Siyuan, WANG Ziquan, ZHEN Xiaoxiao, et al 48
- Bioavailability study of tumor vascular inhibitors DX1002 by UPLC-MS/MS in rat
ZHONG Zhuoling, WANG Rui, YONG Zhiqian, et al 54
- Application of electrochemical biosensors for highly pathogenic virus detection
QI Jiawei, XU Li, WEN Yanli, et al 59
- A clinical analysis of association between kiss-1 rs5780218, rs4889 gene polymorphisms and polycystic ovary syndrome
CAO Ting, YANG Zhong 72
- Characteristics and risk assessment of antibiotic residues in surface water of typical waters in Sichuan
WU Minghao, SHA Jingzhou, HOU Yongbin, et al 78
- The clinical application of expanded non-invasive prenatal screening for identification of fetal chromosome aneuploidies
MA Jing, LIU Dongyun, WANG Xueyan, et al 86
- Evaluating pollution level for COVID-19 patient ward environment with nucleic acid detection
HUANG Yulan, YANG Xiaorong, ZENG Linzi, et al 93
- Research on measurement technology of polymerase chain reaction analyzer
JIANG Zijiang, ZHOU Lihua, MA Lixia, et al 98

Measurement and Control Technologies

- Research on mode decomposition algorithm of nonlinear Chirp signal
JU Haiyang, WANG Xinhua, JIN Hao, et al 103
- Design of automatic berthing control system of USV
HUANG Yesheng, XU Zhengpan, CHEN Yuanming, et al 111
- High frequency harmonic suppression and calculation of phase shift angle for transformer side of parallel converter
CHEN Suxia, LI Nana, HUANG Quanzhen, et al 118
- Fault diagnosis method for train bearings based on MED-assisted feature extraction CNN model
YANG Jieli, LIN Jianhui, CHEN Liang 124
- Test improvement of aircraft wing check valve based on vibration performance simulation
XIE Chunwen, YANG Wenping, HAO Xingang, et al 130

Performance Tests

- Design of online detection system for automobile air pressure disc brake performance
ZHU Yuanhao, FAN Weijun, GUO Bin, et al 138
- Research on the influence of power distribution variation caused by wind power integration on power system small signal power angle stability
LIU Duolu, MA Lin, WANG Bingwen 144
- Experimental study on the loss of metal section area for a kind of steel cable
ZENG Quan, WANG Yuemin, LI Mengjie, et al 151
- Research on wireless voltage drop test technology based on punctuality principle
LI Lei, YANG Guang, HE Zehao, et al 157