

**政策研究**

十年变迁——中国的检验检测体系 ..... 谢 澄(3)

**计量测试**

工业硅粉杂质元素含量测试的方法改进

..... 曹俊英 付 雷 楚东旭 张园园 刘允许(7)

波形分析在电流测试实验室间比对中的应用 ..... 朱 顺(10)

X-射线荧光光谱仪分析铁矿石中 TFe 成分

..... 闫 丽 焦 丽 阎秀艳 王明利 杜士毅(13)

关于铜片用于人工汗液试验质量控制的可行性探讨

..... 廖苏华 张毅浩 胡 伟(17)

铁路转辙机表示接头板断裂失效分析

..... 庞瑞强 甘 锋 付君君 谭海兰 寇 健(21)

高压大电流试验测量系统发展的回顾与展望 ..... 周小猛 林志力 刘成许(23)

质量控制图在直读光谱仪检测数据稳定性中的研究与应用

..... 蒋 威 周 青 朱敏星(26)

耕地土壤重金属含量测定及风险评价 ..... 吴 凡 王文佳 丁 伟 马小东(29)

船用燃料油的钙含量分析 ..... 孙 君(33)

熔融制样-波长色散 X 射线荧光光谱法测定铁矿石中二氧化硅含量测量不确

定度评定 ..... 陈 权 叶华欣 钟坚海 陈金凤(35)

EDTA 容量法测定氧化镧中稀土总量的不确定度评定

..... 沈文馨 章效强 杨 戈 熊朝东(37)

采用绝对测量法对光滑塞规直径测量结果的不确定度评定 ..... 贡玉萍(41)

压力控制器压力示值的测量不确定度评定 ..... 叶昆满 张海金(43)

高效液相色谱柱管理系统软件的开发 ..... 金 鹏(44)

**实验室管理**

多质量体系条件下样品的规范化管理

..... 黄小红 黄红坤 郑佳琳 梁泳雯 曾素丹 饶子亮(48)

检测和校准实验室内审中的问题与改进方法 ..... 张 亮 李忠昊(51)

实验室的作业指导书编制概述

..... 宁月辉 齐 峰 王玉芝 李俊伟 李月梅(53)

能力验证与实验室间比对及其结果处理 ..... 谢庆楠(55)

浅谈如何提高环境监测站内部审核的有效性 ..... 黄 敏(57)

探讨实验室仪器设备的管理 ..... 王 昆(59)

运用概率论和数理统计理论优化产品质量监督抽查制度 ..... 郭学桃(62)

如何指导校准(检定)实验室编制期间核查方法 ..... 林晓秋(65)

浅析消费品质量安全的影响因素及风险防范 ..... 刘欣军(66)

6S 管理在检验检测实验室中的应用 ..... 陶 乾 谢东坡(68)

信息索引 ..... (70)

**中国检验检测**  
ZHONGGUO JIAN YAN JIANCE(双月刊)  
2017 年 1 月创刊

2017 年第 25 卷第 3 期

2017 年 5 月 26 日出版

主管：国家质量监督检验检疫总局

主办：中国计量科学研究院

中国合格评定国家认可中心

编委会主任：方 向 肖建华

编委会副主任：吴方迪 宋桂兰

编 委：张 跃 王 池

李红梅 贺 青

刘文丽 蔡 宇

张明霞 唐丹舟

翟培军 刘春扬

冯 勇 丁德祥

汤 彪 曾 艳

裴二阳

主 编：商泰升

编辑：杨小平 季文晖

电话/传真：010-64281533

市场部：金 鹏 许 苗 王 静

电话：010-63367580 63369691

编辑/出版：《中国检验检测》编辑部

刊号：CN 10—1469/TB

地址：北京市北三环东路 18 号

邮编：100029

广告证号：京朝工商广字第 0111 号

订阅：全国各地邮局/本刊发行部

邮发代号：82-615

电子信箱：xdji@nim.ac.cn

发行：北京市报刊发行局

印刷：中国人民解放军第 4210 工厂

定价：15.00 元

## China Inspection Body & Laboratory

Bimonthly

Established in Jul. 2017

2017. Vol. 25, No. 3

Issued May. 26, 2017

### Responsible :

General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China

### Sponsor :

National Institute of Metrology  
China National Accreditation Institute for Conformity Assessment

### Chairman :

FANG Xiang XIAO Jianhua

### Vice-Chairman :

WU Fangdi  
SONG Guilan

### Chief Editor :

SHANG Taisheng

Edited/Published by Editorial Board of  
《China Inspection Body & Laboratory》  
Periodical No. :CN 10—1469/TB

Address: No. 18, Bei San Huan Dong Lu,  
Chaoyang District, Beijing

P. O. Code: 100029

Advertising Permission No. : Jingchao  
Gongshang Guang No. 0111

Subscribe to China Post Office/Distribution  
Section of 《China Inspection Body & Laboratory》

P. O. Issue No. :82—615

Tel. :010—64281533 or 82262768

Fax. :010—64281533

Advertising Department: 010—63369691

E-mail: xdjl@nim.ac.cn

Domestic Distributor: Beijing Issue Bureau of  
Newspapers and Periodicals

Printed by The No. 4210 Factory of Chinese  
P. L. A.

Unit Price: 15. 00 ¥

### Police Studies

- Development of Chinese Testing and Inspection System Since 2005 to 2015 ..... XIE Cheng(3)

### General Introduction and Comments

- Improved Method for Testing the Content of Impurity Elements in Silicon Powder ..... CAO Jun-ying, FU Lei, CHU Dong-xu, ZHANG Yuan-yuan, LIU Yun-xu(7)

Application of Waveform Analysis in the Current Test with Interlaboratory Comparison ..... ZHU Shun(10)

- Analysis of TFe Composition in Iron Ore by X-ray Fluorescence Spectrometer ..... YAN Li, JIAO Li, KAN Xiu-yan, WANG Ming-li, DU Shi-yi(13)

- About the Feasibility of the Copper used for Quality Control of Artificial Sweat ..... LIAO Su-hua, ZHANG Yi-hao, HU Wei(17)

- Fracture Analysis of Indication Panel for Railway Switch Equipment ..... PANG Rui-qiang, GAN Feng, FU Jun-jun, TAN Hai-lan, KOU Jian(21)

- High Voltage and Large Current Test System Development: Retrospect and Prospect ..... ZHOU Xiao-meng, LIN Zhi-li, LIU Cheng-xu(23)

- Application of Quality Control Chart in Monitoring the Optical Emission Spectrometer Test Data ..... JIANG Wei, ZHOU Qing, ZHU Min-xing(26)

- Heavy Metal Content Determination and Assessment of Cultivated Soil from Areas Around Harbin ..... WU Fan, WANG Wen-jia, DING Wei, MA Xiao-dong(29)

- Analyze of the Element Calcium in Bunker Fuel ..... SUN Jun(33)

- Melting Sample-wavelength Dispersive x-ray Fluorescence Spectrometric Determination of Uncertainty in Measurement of Content of Silicon Dioxide in Iron Ores ..... CHEN Quan, YE Hua-xin, ZHONG Jian-hai, CHEN Jin-feng(35)

- Evaluation of Uncertainty in the Determination of Total Rare Earth Contents in La<sub>2</sub>O<sub>3</sub> by Volumetric Method of EDTA ..... SHEN Wen-xin, ZHANG Xiao-qiang, YANG Ge, XIONG Chao-dong(37)

- The Absolute Method of Measurement Results of Smooth Plug Gauge Diameter Uncertainty ..... GONG Yu-ping(41)

- Evaluation of the Uncertainty in Measurement for Pressure Indication of Pressure Controllers ..... YE Kun-man, ZHANG Hai-jin(43)

- The Development of High Performance Liquid Chromatographic Column Management System ..... JIN Peng(44)

### Laboratory Management

- On Standardized Management Quality System Under Multiple Conditions of the Sample ..... HUANG Xiao-hong, HUANG Hong-kun, ZHENG Jia-lin, LIANG Yong-wen

ZEN Su-dan, RAO Zi-liang(48)

- Problems of Internal Audit in the Testing and Calibration Laboratories and Improving Method ..... ZHANG Liang, LI Zhong-hao(51)

- Summary of the Laboratory Operation Guidance Book ..... NING Yue-hui, QI Feng, WANG Yu-zhi, LI Jun-wei, LI Yue-mei(53)

- Proficiency Testing and Interlaboratory Comparisons and Result Processing ..... XIE Qing-nan(55)

- Discuss how to Improve Effectiveness of Environmental Monitoring station Internal Audit ..... HUANG Min(57)

- Research on Management of the Laboratory Instruments ..... WANG Kun(59)

- Optimize the System of Product Quality Supervision and Sample Test on the Basis of Probability Theory and Mathematical Statistics ..... GUO Xue-tao(62)

- How to Guide Compiling Period Verification in Calibration Laboratory ..... LIN Xiao-qiu(65)

- Analysis on the Influencing Factors and Risk Prevention of the Quality and Safety of Consumer Goods ..... LIU Xin-jun(66)

- Application of 6s Management in Testing Laboratories ..... TAO Qian, XIE Dong-po(68)

- Information Index** ..... (70)