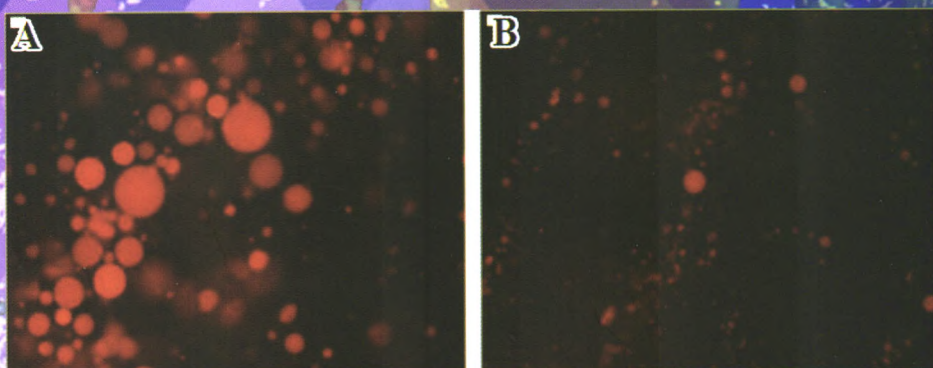


# 分析化学

No.8 Vol.43

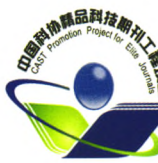
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## CHINESE JOURNAL OF ANALYTICAL CHEMISTRY



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中国科学院长春应用化学研究所 出版  
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# 分析化学

第43卷第8期 2015年8月

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## 会议通知

第十五届国际化学计量学大会在中国顺利召开(1144)、第五届金属组学国际研讨会(1209)、第八届科学仪器网络原创作品大奖赛征集合作期刊邀请函(1217)、第二届全国质谱分析学术报告会(第一轮通知)(1223)

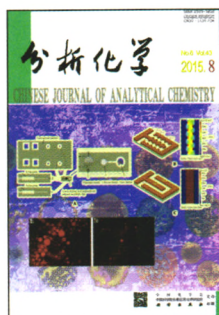
## 广告目录

化学计量与分析科学研究所(封二) 岛津国际贸易(上海)有限公司(文前1) 岛津国际贸易(上海)有限公司(文前2) 岛津技迹(上海)商贸有限公司(文前3) 赛默飞世尔科技(中国)有限公司(文前4) 上海新仪微波化学有限公司(文前5) 上海和泰仪器有限公司(文前6) 大连大特气体有限公司(文前7) 青岛盛瀚色谱技术有限公司(文前8) 德国耶拿分析仪器有限公司(文前9) 青岛普仁仪器有限公司(文前10) BCEIA2015(文前11) 信息仪器网(文前12) 安捷伦科技(中国)有限公司(文前13) 艾卡(广州)仪器设备有限公司(目录前14) 赛默飞世尔科技(中国)有限公司(中插1) 大连依利特分析仪器有限公司(中插2) 钢研纳克i检测技术有限公司(中插3) 瑞士万通中国有限公司(中插4) 订阅《分析化学》(文后1) 安徽时联特种溶剂股份有限公司(文后2) 北京海光仪器公司(封三) 北京吉天仪器有限公司(封底)

(本期责任编辑:于桂红 编排:潘文革)

\* 联系人

★ 该篇文章的英文电子版由 Elsevier 出版社在 ScienceDirect 上出版(<http://www.sciencedirect.com/science/journal/18722040>)

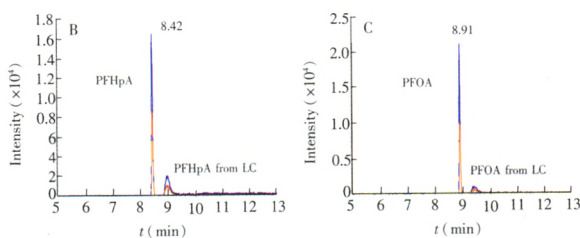


On page 1113–1117, WANG et al designed and fabricated a microfluidic chip with preparation module and collection module for giant vesicles by microfluidic technology and microelectrode array, by which an electric field was loaded on the microelectrode array, and the stable giant spherical vesicles could be efficiently formed, sorted and collected.

Scientific Papers

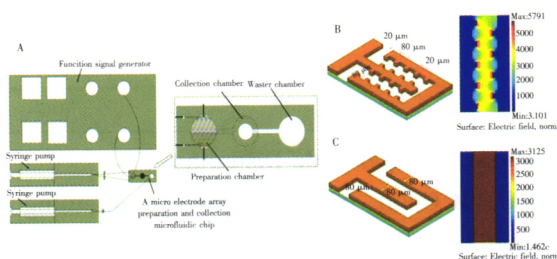
### Simultaneous Identification and Detection of 23 Perfluorinated Alkyl Substances in Processed Aquatic Products by Impurity Delay Using Liquid Chromatography Coupled with Quadrupole/Linear Ion Trap Mass Spectrometry

GUO Meng-Meng, WU Hai-Yan, LU Li-Na, TAN Zhi-Jun\*, ZHAI Yu-Xiu, ZHAO Chun-Xia, FU Shu-Lin, LI Zhao-Xin  
*Chinese J. Anal. Chem.*, 2015, 43(8): 1105–1112



### ★ Microfluidic Chips for Preparation and Collection of Giant Vesicles

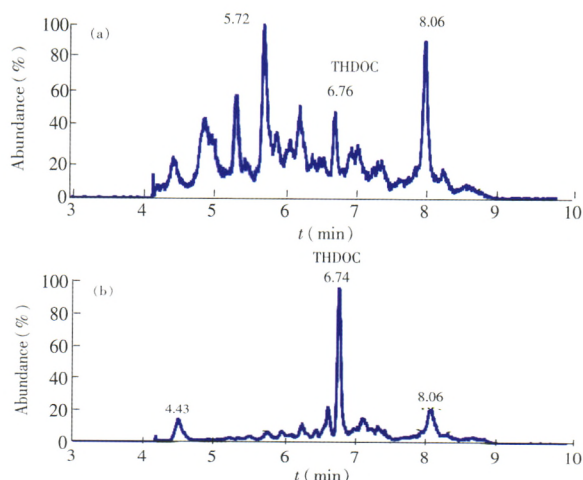
WANG Zhen-Yu, WANG Qiong, WANG Wan-Gang, LI Wen-Man, HU Ning, YANG Jun\*  
*Chinese J. Anal. Chem.*, 2015, 43(8): 1113–1117



**Simultaneous Determination of Six Neurosteroids Hormones in Rat Brain Tissues by High Performance Liquid Chromatography-Tandem Mass Spectrometry**

LIU Jia, ZHANG Meng, WAN You, WU Hong-Hai, HOU Yan-Ning, ZHENG Le-Min\*, YIN Yu-Xin\*

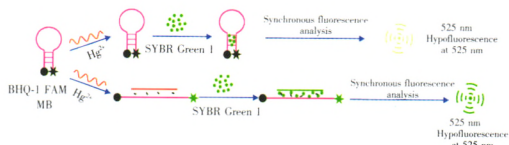
*Chinese J. Anal. Chem.*, 2015, 43(8): 1118-1124



**★ Highly Sensitive Fluorescence Quantitative Detection of Mercury in Soil Samples Based on Molecular Beacon and Nucleic Acid Dye SYBR Green I**

ZHAI Kun, XIANG Dong-Shan, ZHU Jun, HU Hong-Qing\*

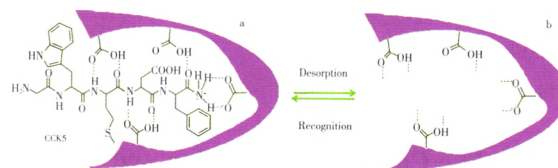
*Chinese J. Anal. Chem.*, 2015, 43(8): 1125-1129



**★ Preparation of Cholecystinin Molecularly Imprinted Polymer Monolith and Its Application in Solid Phase Microextraction and High Performance Liquid Chromatographic Analysis**

LI Hua\*, JI Xiang, WEI Liu

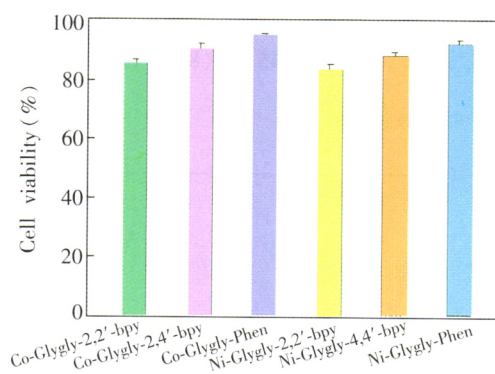
*Chinese J. Anal. Chem.*, 2015, 43(8): 1130-1135



**Synthesis of Superoxide Dismutase-like Activity of Co(II), Ni(II) Complexes Containing Aromatic Amines and Glycylglycine**

MA Jun-Huai, QIN Dong-Dong, SONG Yu-Min\*

*Chinese J. Anal. Chem.*, 2015, 43(8): 1136-1144

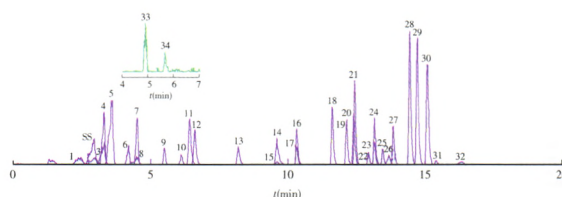




**Simultaneous Determination of Thirty-five Pesticides and Transformation Products in Surface Water Using Solid Phase Extraction Combined with Ultra-Performance Liquid Chromatography-Tandem Mass Spectrometry**

SUN Jing, XU Xiong, LI Chun-Mei,  
LUO Qian\*, WANG Dong-Hong,  
WANG Zi-Jian\*

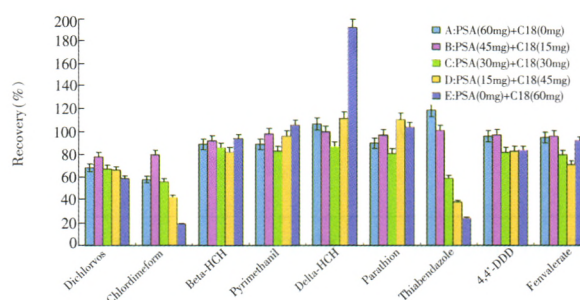
*Chinese J. Anal. Chem.*, 2015, 43(8): 1145-1153



**★ Determination of 90 Pesticide Residues in Fruit Juices Using QuEChERS Cleanup and Programmable Temperature Vaporizer-based Large Volume Injection by Gas Chromatography-Mass Spectrometry**

ZHANG Chi, SONG Ying, PAN Jia-Rong\*,  
JIAO Bi-Ning, SUI Ke, LIANG Shi-Zheng,  
FENG Tao, FU Li-Li

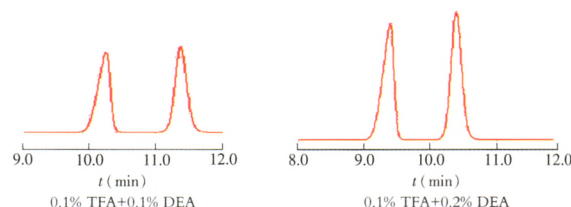
*Chinese J. Anal. Chem.*, 2015, 43(8): 1154-1161



**Preparation and Evaluation of New Cellulose Acetylsalicylate Chiral Stationary Phase**

LI Yang, ZHU Jin-Ke, FENG Hua, LI Lian-Jie,  
JIANG Deng-Gao\*

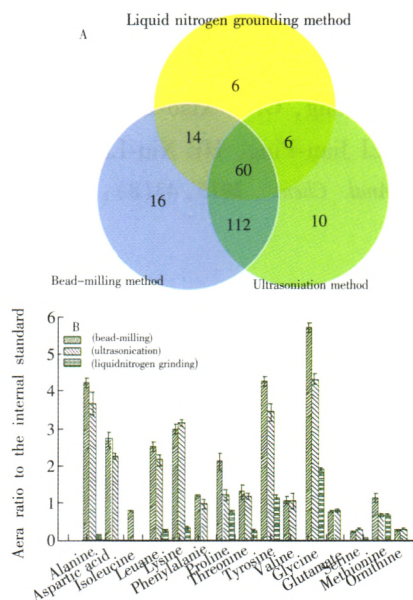
*Chinese J. Anal. Chem.*, 2015, 43(8): 1162-1168



**Comparative Study on Sample Pretreatment Methods for Metabolomics Analysis of Bacillus Subtilis**

WANG Hong-Bin, YANG Hong-Zhe,  
YANG Ji-Han, WANG Yong-Shuai,  
LU Fu-Ping\*

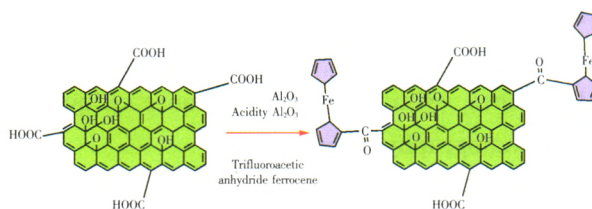
*Chinese J. Anal. Chem.*, 2015, 43(8): 1169-1174



**Preparation of Ferrocene Functionalized Graphene Modified Electrode and Its Application in Detection of Dopamine**

LIU Chao, HE Jian-Xin, GU Ning-Yu,  
CAI Jian-Xin\*, WANG Xiao-Lei,  
YANG Zhen-Yu\*

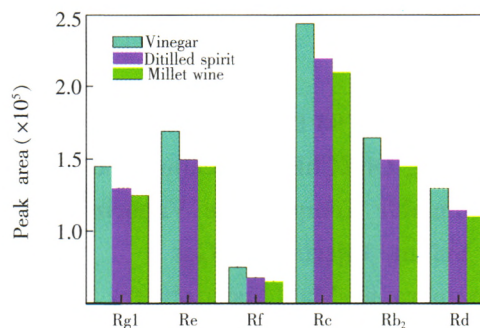
*Chinese J. Anal. Chem.*, 2015, 43(8): 1175–1180



**Determination of Ginsenosides in Processed Ginseng by Rapid Resolution Liquid Chromatography Coupled with Quadrupole-Time-of-Flight Tandem Mass Spectrometry**

DAI Yu-Lin, YUE Hao, Sun Chang-Jiang,  
GUO Yun-Long, ZHENG Fei, LI Jing,  
LIU Shu-Ying\*

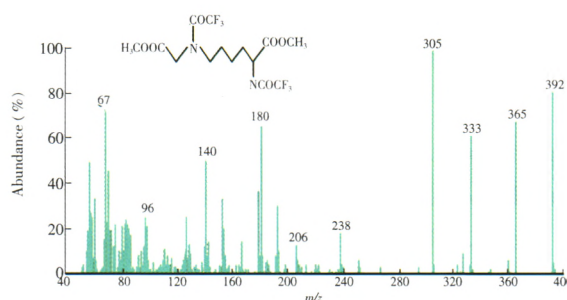
*Chinese J. Anal. Chem.*, 2015, 43(8): 1181–1186



★ **Determination of N<sup>ε</sup>-Carboxymethyl-lysine Content in Muscle Tissues of Turbot by Gas Chromatography-Mass Spectrometry**

WANG Jing, TIAN Sheng-Lan,  
SUN Wei-Hong, LIN Hong, LI Zhen-Xing\*

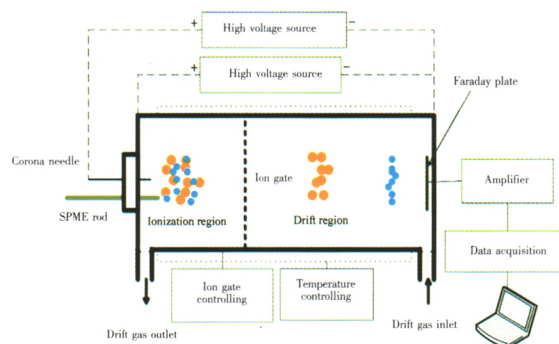
*Chinese J. Anal. Chem.*, 2015, 43(8): 1187–1192



★ **Solid Phase Microextraction-Ion Mobility Spectrometry for Rapid Determination of Trace Dichlorovos in Tea Drinks**

WANG Jin-Xiang, GAO Xiao-Guang\*,  
JIA Jian, LI Jian-Ping, HE Xiu-Li

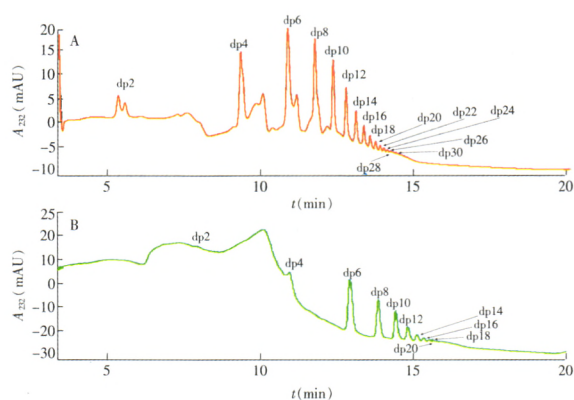
*Chinese J. Anal. Chem.*, 2015, 43(8): 1193–1197



**Hydrophilic Interaction Liquid  
Chromatography-Quadrupole-Time-of-Flight  
Mass Spectrometry for Analysis of Glycosami-  
noglycan Oligosaccharides**

WU Cheng-Ling, LIU Jian-Fen\*,  
ZHANG Zhen-Qing\*

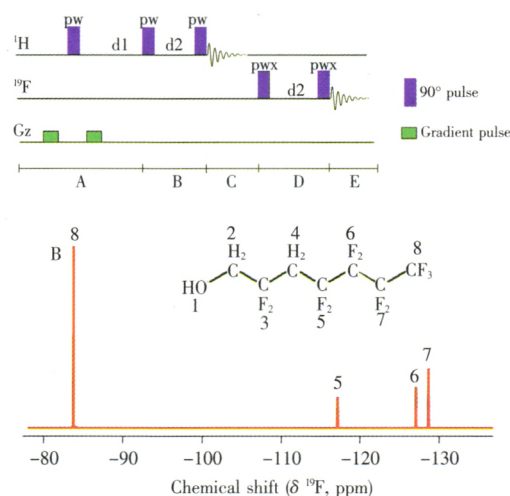
*Chinese J. Anal. Chem.*, 2015, 43(8): 1198–1202



★ **Two-dimensional Nuclear Magnetic Resonance  
Spectroscopy with Parallel Acquisition of  
<sup>1</sup>H-<sup>1</sup>H and <sup>19</sup>F-<sup>19</sup>F Correlations**

WAN Ying-Bo, LI Xiao-Hong\*

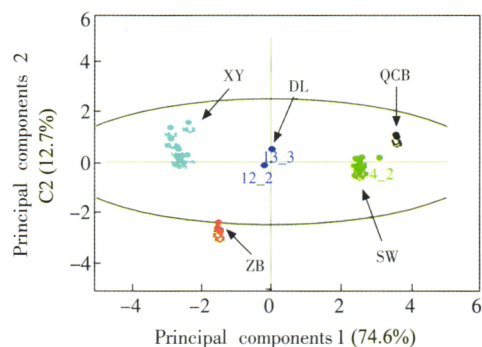
*Chinese J. Anal. Chem.*, 2015, 43(8): 1203–1209



**Quantificative Determination of 8 Primary  
Metabolites in Huangqi Injection by <sup>1</sup>H-NMR  
with Deconvolution**

CHEN Yan-Yan, LI Xiao-Nan, WANG Yue-Fei,  
WANG Meng, WANG Ya-Nan,  
JIANG Miao-Miao\*

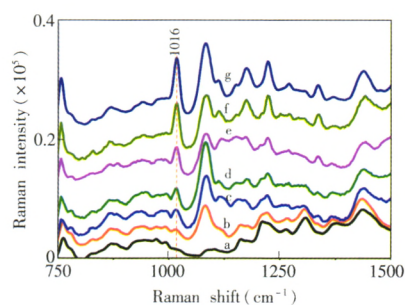
*Chinese J. Anal. Chem.*, 2015, 43(8): 1210–1217



**Quantitative Determination of Coumarin in  
Food by Surface-enhanced Raman  
Spectroscopy**

HUANG Mei-Ying, LI Gong-Ke\*,  
HU Yu-Ling\*

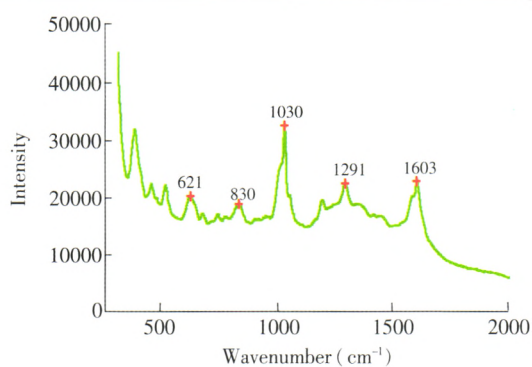
*Chinese J. Anal. Chem.*, 2015, 43(8): 1218–1223





## Rapid Detection of Benzidine in Reducing Solution of Textiles by Surface-Enhanced Raman Scattering Spectroscopy

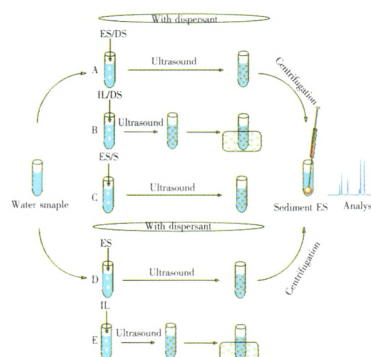
TANG Xiao-Ping, ZHANG Xiao-Fang,  
QI Xiao-Hua, ZOU Ming-Qiang\*, SHAO Yong,  
WANG Ji-PING, ZHOU Jian, CUI Sha-Sha  
*Chinese J. Anal. Chem.*, 2015, 43(8): 1224–1230



## Review and Progress

### ★ Progress of Extraction Solvent Dispersion Strategies for Dispersive Liquid-Liquid Microextraction

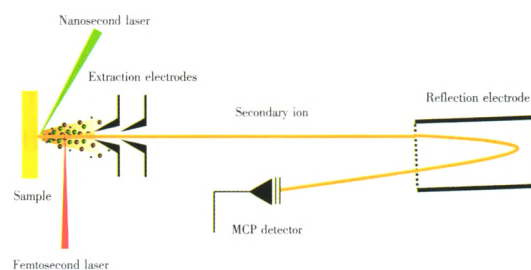
LI Ming-Jie, ZHANG Hong-Yi\*,  
LIU Xiao-Zhe, CUI Chun-Yan, SHI Zhi-Hong  
*Chinese J. Anal. Chem.*, 2015, 43(8): 1231–1240



## Experimental Technique and Instrument

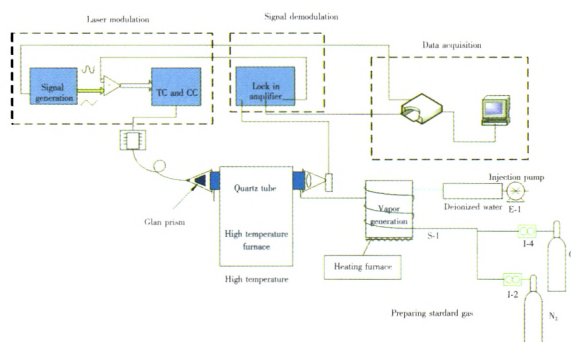
### Femtosecond Laser as Post-ionization Method for Secondary Neutral Mass Spectrometry

BIAN Chen-Guang, WANG Li\*,  
WANG Yan-Qiu, SONG Zhe, LIU Ben-Kang\*  
*Chinese J. Anal. Chem.*, 2015, 43(8): 1241–1246



### Carbon Monoxide Measurement at Elevated Temperature Based on Tunable Diode Laser Absorption Spectroscopy

GUO Yan-Lin, HUANG Xiao, HONG Yi,  
DONG Jun-Guo, GAO Wei, Li Mei,  
HUANG Zheng-Xu, FU Zhong, CHENG Ping\*,  
ZHOU Zhen  
*Chinese J. Anal. Chem.*, 2015, 43(8): 1247–1254



\* The author to whom the correspondence should be addressed

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采用顺序萃取的样品处理模式,系统自动完成在线清洗、过滤以及净化等操作,可无人值守,适用于气相色谱、液相色谱、色谱联用等分析仪器的样品预处理

### FIA系列 流动注射分析仪



多通道分析,支持最多8通道同时检测,可检测挥发酚、氰化物、总氰化物、总磷、总氮、硝酸盐/氮、亚硝酸盐/氮、氨氮、凯氏氮、磷酸盐、硫酸盐、硅酸盐、阴离子表面活性剂、六价铬、可溶性硫化物、可溶性硼化物、氟化物、碘化物、二氧化碳、甲醛、总糖、还原糖、淀粉、尿素、总碱度、总硬度、酸度、色度、钾、钙、镁等



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