

顶空_毛细管气相色谱测定水中甲醛和苯系物

Determination of formaldehyde and benzene compounds in water by headspace capillary gas chromatography _

In order to allow the masses to drink clean water, the new standard of drinking water has been revised and announced the implementation of the new increase in the 69 toxicological indicators, including benzene series. Benzene can cause cancer, and other benzene compounds are toxic to humans and aquatic plants. Benzene, benzene, toluene, xylene is the most common and most important solvents and chemical raw materials, benzene series in case of pollution of water, it will cause harm to people. Formaldehyde is widely present in the environment, there is a strong stimulus to the human body.

Tengzhou Xiangying Determination Technology Co. Ltd. established benzenes.

Methods: the determination of Benzene Series in water by XiangyingGC7990plus automatic headspace capillary gas chromatography was used to optimize the chromatographic conditions and the headspace conditions.

Results: 8 kinds of components in 7 min to complete the determination and has a good separation effect; in 1 g/L ~ 100 g/L concentration range can get better linearity, correlation coefficient 0.999. The synthetic water samples and standards were determined by the established method, and the variation coefficient was 1.6% ~ 6.5%. The minimum detection concentration is 0.5 g / L (benzene and toluene), 1 g / L (ethylbenzene, styrene, o-xylene and Cumene), 2 g / L (of m-xylene,).

Conclusion: the established method is simple, rapid and has good precision and accuracy. It can be used for the determination of benzene in water

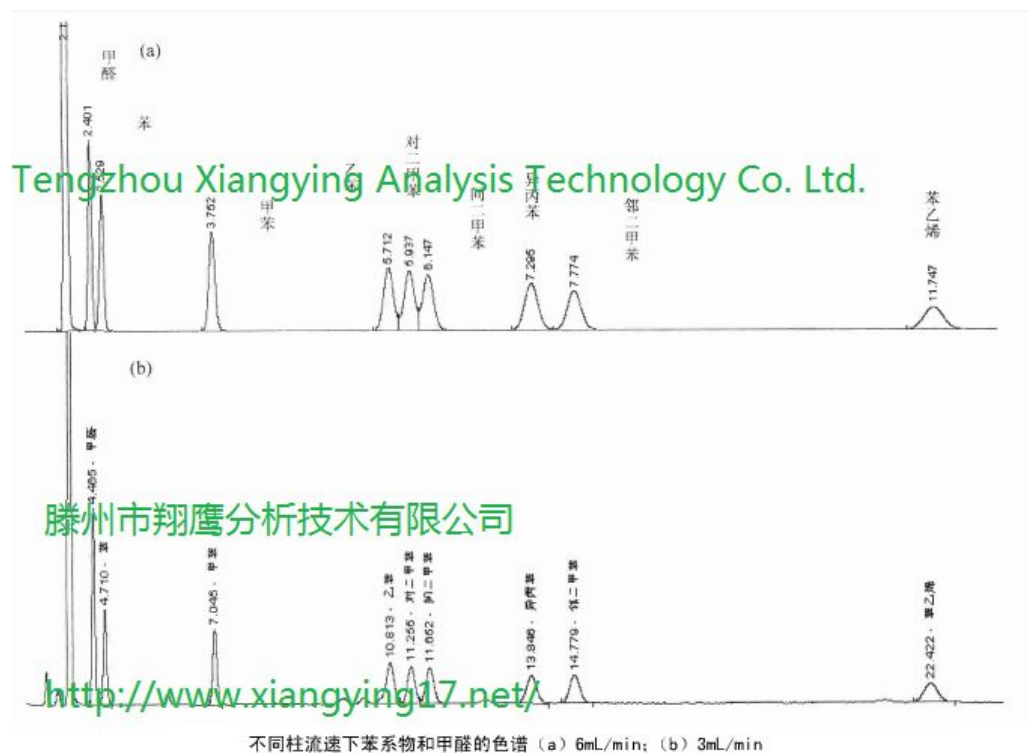
为了让人民群众能喝上干净的水,新的《生活饮用水标准》进行了修订并公布实施,新增加的毒理指标 69 项,其中包括苯系物。苯具有致癌致畸性,其他苯系物对人和水生植物毒性也很大。苯系物尤其是苯、甲苯、二甲苯是最常见最重要的溶剂和化工原料,苯系物万一污染水源,就会对人们身体造成伤害。甲醛广泛存在于环境中,对人体有强烈的刺激。

滕州市翔鹰分析技术有限公司建立水中苯系物的测定方法。

方法:优化色谱条件和顶空条件,采用 XiangyingGC7990plus 自动顶空毛细管气相色谱法测定水中苯系物。

结果:8 种组分在 7 min 内完成测定并具有较好的分离效果;在 1 μ g/L~100 μ g/L 浓度范围内可获得较好的线性,相关系数 0.999。用建立的方法对人工合成水样、标准进行测定,变异系数 1.6%~6.5%。最低检测质量浓度为 0.5 μ g/L(苯、甲苯),1 μ g/L(乙苯、苯乙烯、邻二甲苯、异丙苯),2 μ g/L(对、间二甲苯)。

结论:所建立的方法简便、快速,具有较好的精密度与准确度,可用于水中苯系物的测定。



Big screen in English two kinds of display, the picture switch is simple and clear, the appearance is fashionable and beautiful.

To improve the automation, intelligent, multi-functional, multidimensional chromatographic system (ARM9-32 bit chip and foreign original software) width of the heating rate, rapid cooling system, temperature control technique for high stability, very good performance price ratio.

Perfect self diagnosis function, can make the user easy to check the fault location and fault type.

Perfect temperature protection and platinum wire resistance to open, short circuit alarm function, to ensure that the temperature is not out of control.

Can be equipped with a built-in AD conversion circuit, can be directly digital output signal to achieve the complete control and analysis of the work on the PC.

Post box can realize negative temperature operation by dry ice or liquid nitrogen.

大屏幕中英文两种显示，画面切换简单明了，外观时尚美观。

完善的自动化，智能化，多功能化，多维色谱系统（ARM9-32 位芯片和国外原版软件）宽幅的升温速率，快速的降温系统，高稳定性的温控技术，非常好的性能价格比。

完善的自诊断功能，能使用户方便的检查故障部位和故障类型。

完善的温度过热保护及铂丝电阻开，短路报警功能，保证温度不失控。

可选配内置 AD 转换电路，可直接数字输出信号，实现在 PC 上完成控制与分析的全部工作。

柱箱通过干冰或液氮可实现负温度操作。

