

The logo for Scientific Services, featuring the word "scientific" in white lowercase letters on a dark blue rectangular background, followed by the word "services" in blue lowercase letters on a white background.

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## Press Release

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May 2012

### **FILTRONA SCIENTIFIC SERVICES REVEALS RESULTS OF RESEARCH INTO NEW METHOD FOR MEASURING HYDROGEN CYANIDE IN CIGARETTE SMOKE**

Filtrona Scientific Services, a Filtrona plc business, has published its latest research which has identified a new method for measuring Hydrogen Cyanide in cigarette smoke using ion chromatography and pulsed amperometric detection. In the study, Dr Mike Taylor, Director of Scientific Development, found that the new method provides yield values comparable with current measurement methods and also does not require the use of toxic reagents. Those wishing to read the research paper in full can download it free at: [www.filtronascientificservices.com/researchpapers](http://www.filtronascientificservices.com/researchpapers)

The toxicity of Hydrogen Cyanide has long been recognised and is included in the majority of lists of harmful smoke compounds internationally. As a result, analysis and measurement of Hydrogen Cyanide in cigarette smoke has been carried out for many years, in order for cigarette manufacturers to meet regulatory requirements. A range of techniques have been used in the past to measure Hydrogen Cyanide, with continuous flow analysis with colourimetric detection being the most common method. Although well-established continuous flow analysis has some disadvantages, including the need to use toxic and extremely odorous reagents during the measurement process. In his research, Dr Taylor examines a new method using ion chromatography and pulsed amperometric detection which requires only simple and non-toxic aqueous reagents in the measurement process.

#### Filtrona Technology Centre



Filtrona Technology Centre, Shaftesbury Avenue, Jarrow, Tyne & Wear NE32 3UP

Tel: +44 (0)191 4230595 Fax: +44 (0)191 4285652 email: [scientificservices@filtrona.com](mailto:scientificservices@filtrona.com) [www.filtronafilters.com/scientificservices](http://www.filtronafilters.com/scientificservices)

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Within the paper, details of the new method are provided, including a discussion of the detector waveforms needed for cyanide analysis and explanation of the validation parameters which were used in the research. Two methods of trapping Hydrogen Cyanide in whole smoke - impingers and simple granular traps - are also discussed, with comparative yields of Hydrogen Cyanide using the ion chromatographic method and continuous flow analysis provided.

Dr Taylor summarises the findings: "This work has demonstrated that a method using ion chromatography and amperometric detection does represent an effective alternative for measuring Hydrogen Cyanide in cigarette smoke. The new technique combines high selectivity and ease of use compared with continuous flow analysis, and comes with the benefit of not requiring the use of potentially toxic organic reagents."

- Ends -

## Notes to Editors:

### Filtrona Scientific Services

Filtrona Scientific Services is a world-leading, internationally accredited (ISO 17025) laboratory specialising in the field of tobacco science. Operating independently, Filtrona Scientific Services offers a wide range of commercial tests, including tobacco, other tobacco products, electronic cigarettes, smoke and filter testing to meet product development and regulatory needs for companies working in the tobacco industry and Governmental organisations who regulate the industry.

With its strong team of highly knowledgeable and experienced scientists and representatives across the globe, Filtrona Scientific Services works closely with its customers to understand their needs and deliver world class service and results. Tobacco is a commodity with fascinating complexity, and Filtrona Scientific Services is on hand to provide its customers with a higher level of understanding.

To find out more about Filtrona Scientific Services, its services and diverse range of tobacco testing, visit the dedicated website at [www.filtronascientificservices.com](http://www.filtronascientificservices.com)

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Tel: +44 (0)191 4230595 Fax: +44 (0)191 4285652 email: [scientificservices@filtrona.com](mailto:scientificservices@filtrona.com) [www.filtronafilters.com/scientificservices](http://www.filtronafilters.com/scientificservices)

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**All reader enquiries should be sent to:**

Filtrona Technology Centre, Shaftesbury Avenue, Jarrow, Tyne &amp; Wear, NE32 3UP

E-mail: [scientificservices@filtrona.com](mailto:scientificservices@filtrona.com)

Telephone number for publication: +44 (0)191 4230595

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**For further press information, please contact:**

Melanie Hulbert, Account Manager, Technical Publicity

E-mail: [mhulbert@technical-group.com](mailto:mhulbert@technical-group.com)

Tel: +44 (0)1582 390985

**About Filtrona plc**

Filtrona plc (or "the Company") is a FTSE 250 company and a leading international supplier of specialty plastic, fibre and foam products with four operating division: Protection & Finishing Products, Porous Technologies, Coated & Security Products and Filter Products. The Company focuses on the light manufacture and distribution of high volume, essential components which serve customers in a wide variety of end-markets and geographies.

Headquartered in the United Kingdom, Filtrona plc's global network extends to 28 countries and includes c. 4,000 employees, 33 principal manufacturing facilities, 63 sales & distribution operations and 5 research & development centres.

**For further information on Filtrona plc please visit [www.filtrona.com](http://www.filtrona.com), or contact:**

Joanna Speed, Corporate Affairs Director

Tel: +44 (0)1908 359100

**Filtrona Technology Centre**

Filtrona Technology Centre, Shaftesbury Avenue, Jarrow, Tyne &amp; Wear NE32 3UP

Tel: +44 (0)191 4230595 Fax: +44 (0)191 4285652 email: [scientificservices@filtrona.com](mailto:scientificservices@filtrona.com) [www.filtronafilters.com/scientificservices](http://www.filtronafilters.com/scientificservices)