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# AIRMOTWA: NEW TRAP-GC-MS-FID INSTRUMENT FOR AMBIENT AIR MONITORING DESIGNED FOR ONSITE USE.

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Damien BAZIN, Mickael GEZAT, Michel ROBERT and Franck AMIET

To ensure people safety and a good repeatability of industrial process, the analysis of ambient air is crucial. Especially, electronic boards are produced in clean air room by complex lithographic process using very reactive chemicals. The nature and concentration of volatile compounds can be different depending on the chemical process and can also vary rapidly. There is a need to analyze precisely and continuously gas process in air with an instrument designed for industrial use.

Since 1986, Chromatotec® is a worldwide recognised expert in gas analysis, renowned and certified for its precise analysis in ambient air monitoring and natural gas.<sup>1</sup> In industry, Chromatotec's systems prove their value in online monitoring, quality control and environmental protection. They make substantial contributions to process control, to the improvement of product quality, and to the enhancement of system safety as well as to environmental protection. Chromatotec has developed a turnkey solution which allows the quantification and identification of compounds at ppt, ppb, ppm and % levels. The airmoTWA is a new industry standard for online and continuous TRAP-GC-MS-FID. It encompasses a specific trap to concentrate the sample, a column for separation of chemicals and two detectors: a new micro flame ionization detector (FID) and a mass spectrometer for quantification and identification respectively. The airmoTWA is simple to use and incredibly sensitive and delivers robust and reliable performance. Particularly, the instrument can monitor high and low concentrations for a large number of molecules. The instrument is measuring and recording concentrations of chemicals and can have alarm systems which can be set to inform on important changes of the surrounding atmosphere. We will show that the instrument is perfectly suited for the mapping of chemical concentrations in clean air room, leak detection and filters efficiency.

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<sup>1</sup> Tests published in 2013 by the NPL on 12 VOCs compounds