

## **HS–SPME–CGC–PID Determination of Aldehydes in Rectified Spirits and Vodkas After Derivatisation With 2,4,6-Trichlorophenylhydrazine (TCPH)**

**by Janusz Curyło<sup>1</sup> and Waldemar Wardencki<sup>2</sup>**

*Analytical Chemistry Department, Chemical Faculty, Gdańsk University of Technology,  
ul. G. Narutowicza 11/12, 80-952 Gdańsk Wrzeszcz, Poland*

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A novel method for the determination of aldehydes in spirits and unflavoured alcoholic beverages using 2,4,6-trichlorophenylhydrazine (TCPH) derivatising agent has been developed. The proposed approach is at least 100-fold less expensive than the headspace solid phase microextraction (HS-SPME) and gas chromatography (GC) involving another derivatising reagent - frequently recommended *o*-2,3,4,5,6-pentafluorobenzylhydroxyloamine (PFBHA). Conditions of derivatisation, extraction and final chromatographic analysis have been determined. The application of photoionisation detector (PID), instead of the commonly used electron capture detector (ECD), allowed one to obtain simple chromatograms of the formed hydrazones. For the most of investigated aldehydes limits of detection (LODs) were in the range 0.002–0.070 mg dm<sup>-3</sup>. Relative standard deviations (RSDs) did not exceed 10% (except for formaldehyde and acrolein). The total analysis time was *ca* 1.5 h.