



Design of the semi-VOC generation system based on ISO 6145-4.

Contacts:

Stefan Persijn Van Swinden Laboratory (VSL) Thijsseweg 11 2629 JA Delft The Netherlands Telephone: +312691728 Email: abaldan@vsl.nl www.vsl.nl

Partners and Associates:

VTT MIKES, Finland (Coordination) CMI, Czech Republic INRIM, Italy NPL, United Kingdom PTB, Germany VSL, the Netherlands HC Photonics Corporation, Taiwan



TECHNOLOGY OFFER

Semi-VOC generation system based on ISO 6145-4

With our new SVOC generation system we can produce a large variety of reference gas mixtures at a wide range of concentration levels and compounds.

Technical description

VSL constructed and validated a generation system based on two stage dilution for the preparation of standard atmospheres of semi-VOCs at levels of 10 ppb down to circa 100 ppt. Semi-VOCs have boiling points between 240-260°C and 380-400°C (ISO 16000-61) and low vapour pressure, which makes reference gas generation challenging.

The working principle of our generation system is based on continuous syringe injection as described in ISO standard 6145-4. The principle is that a liquid mixture is led into an oven to evaporate, and then is diluted with purified air, homogenized and led to the sampling ports.

Capabilities

- Reliable generation of semi-VOCs due to a unique design preventing cold spots
- Wide range of compounds can be generated including toluene, 1,4dichlorobenzene, n-methylpyrrolidone, dimethyl phthalate, dibutyl phthalate and n-C10 up to n-C20
- Wide range of concentrations by using either 1 or 2 stage dilution
- Production of transfer standards in thermal desorption tubes



Thermal desorption tubes that can be loaded with various compounds can be prepared by the new generation system

Economic significance

Services using the new facility include:

- Testing and calibration of analyzers
- Production of transfer standards in thermal desorption tubes for your quality control (according to ISO 16017)

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