

Electronic Supplementary Information (ESI)

Portable Combination of Fourier Transform Infrared Spectroscopy and Differential Mobility Spectrometry for Advanced Vapor Phase Analysis

L. Tamina Hagemann,^{a,b} Mitchell M. McCartney,^a Alexander G. Fung,^a Daniel J. Peirano,^a Cristina E. Davis,^{*a} Boris Mizaikoff^{*b}

^a Department of Mechanical and Aerospace Engineering, University of California Davis, CA 95616, USA.

^b Institute of Analytical and Bioanalytical Chemistry, Ulm University, 89081 Ulm, Germany.

iHWG-FTIR and GC-DMS Setup

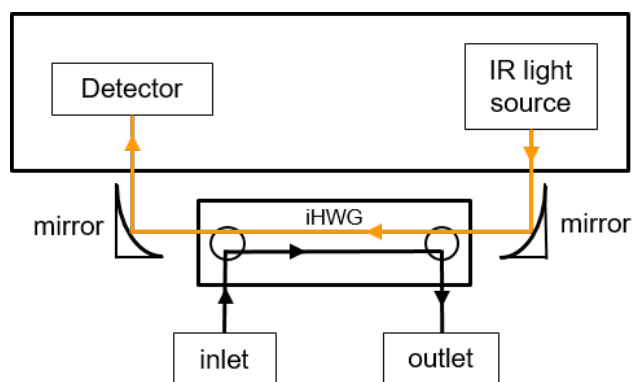


Figure S-1: Detailed interior of iHWG-FTIR setup. The black arrows indicate the flow of the gas sample. The yellow arrow shows the path of the IR light, which is focused into and guided through the iHWG, and then onto the detector by two OAPMs.

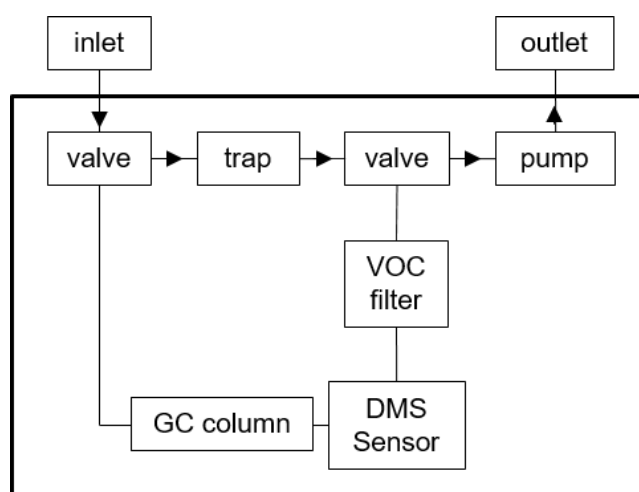


Figure S-2: Detailed interior of the GC-DMS device. The black arrows indicate the flow of the gas sample during the preconcentration phase. While IPM is preconcentrated on the trap and then detected by the DMS sensor, CH₄ leaves the GC-DMS unaffected.