

## SUPPLEMENTARY MATERIAL

### Analytical Methods

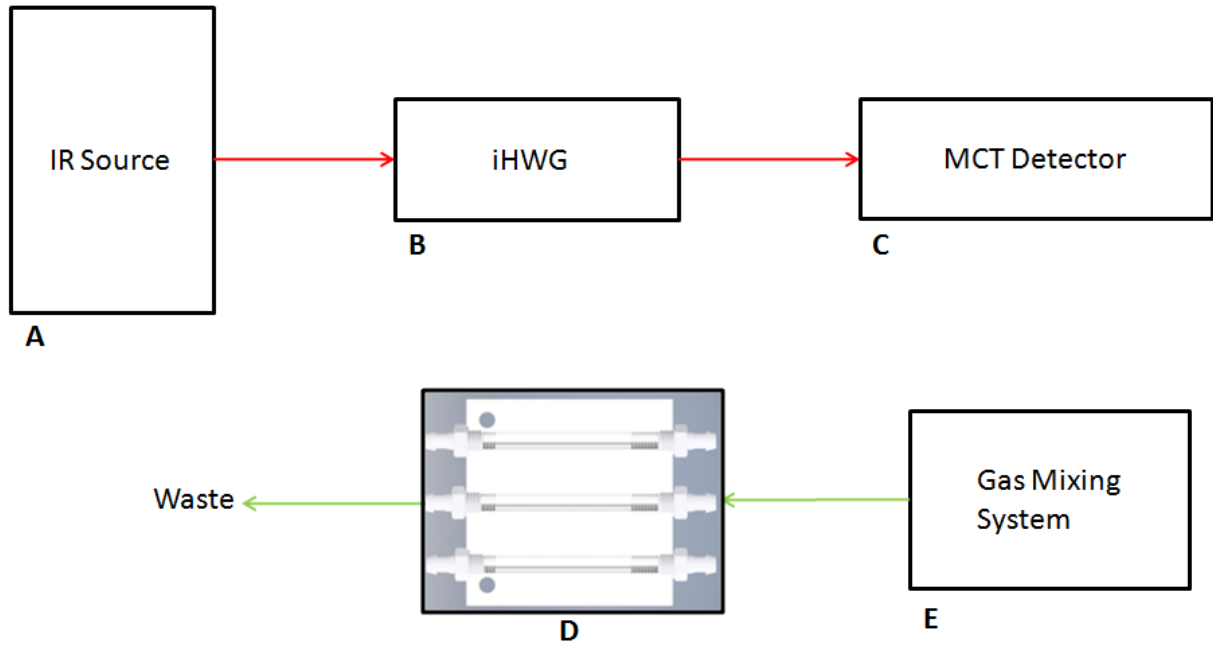
# **muciPRECON: Multichannel Preconcentrators for Portable Mid-Infrared Hydrocarbon Gas Sensors**

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The following figures illustrate the flow path of the vapor phase samples or purging gas during the adsorption, desorption, measurement, and regeneration phase. In green colour, the path of the gas is shown, and in red the IR radiation path; at the bottom of the figure, the relevant operational parameters for each step are provided.

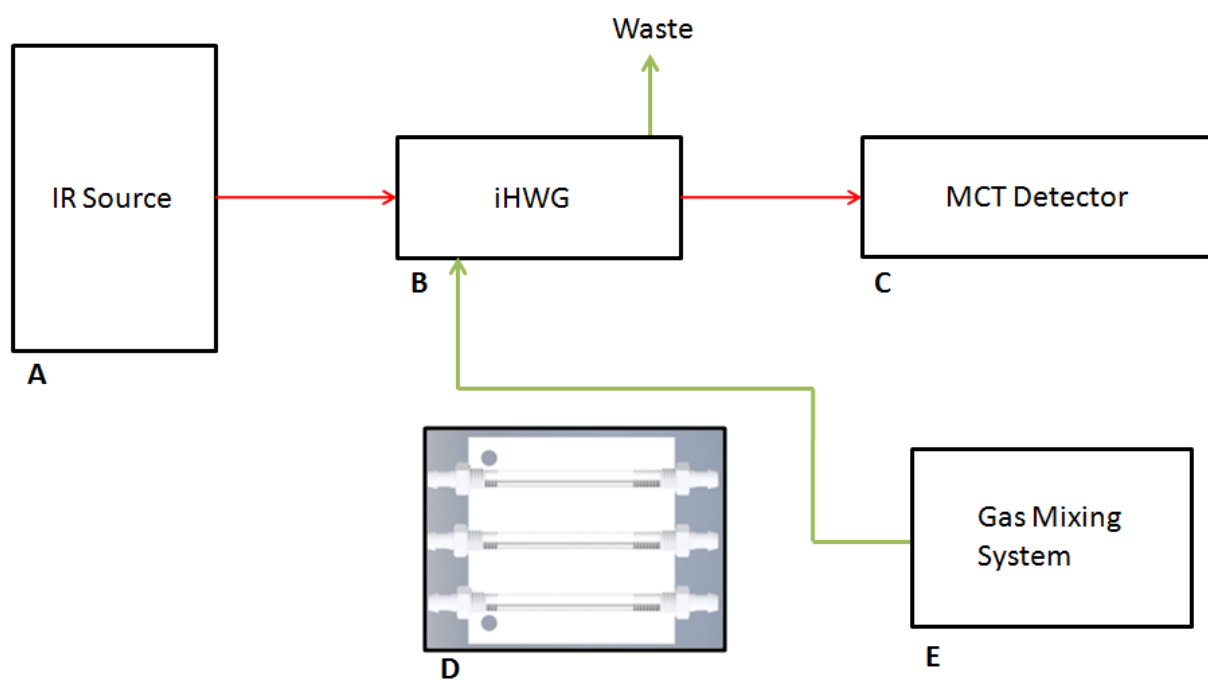
### Sampling



<b>Sampling</b>	<b>Temperature [°C]</b>	<b>-10</b>
	<b>Flow [mLmin<sup>-1</sup>]</b>	<b>200</b>
	<b>Gas</b>	<b>N<sub>2</sub> / CH<sub>4</sub></b>
	<b>Volume [L]</b>	<b>2</b>

Figure 1: Sampling cycle.

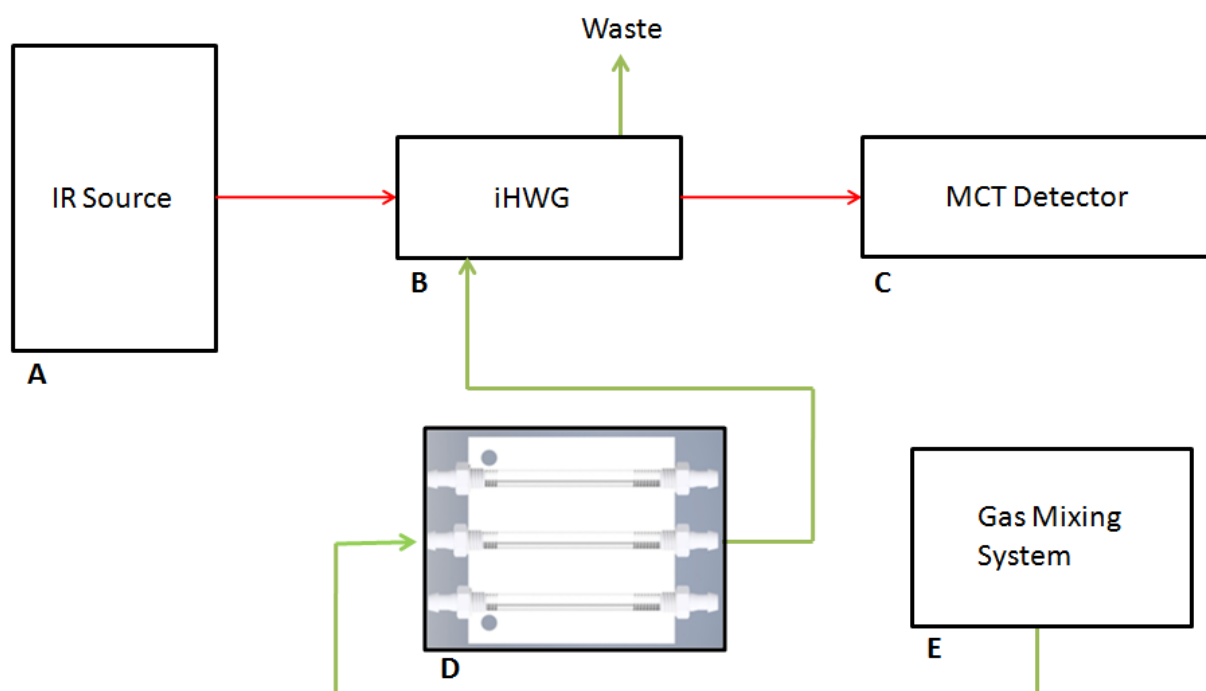
## Heating (iPRECON) and Cleaning (iHWG)



<b>Heating</b>	<b>Temperature [°C]</b>	<b>-10 to 100</b>
	<b>Flow [mLmin<sup>-1</sup>]</b>	<b>10</b>
	<b>Gas</b>	<b>N<sub>2</sub></b>

Figure 2: Heating cycle.

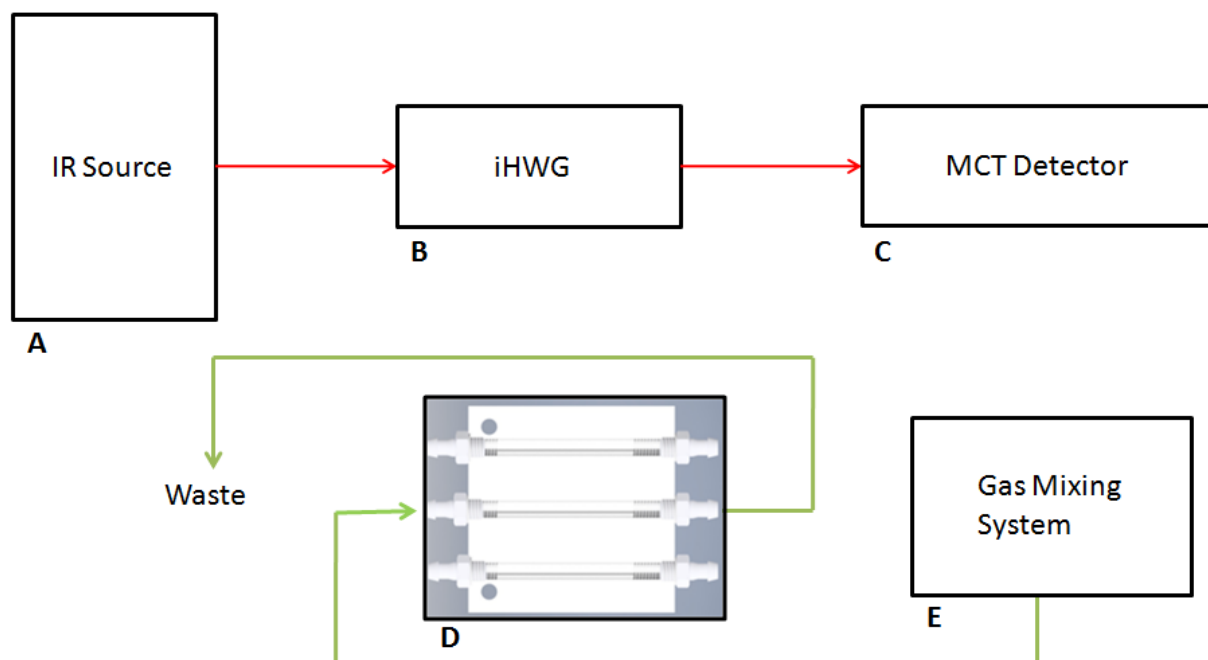
### Measuring



<b>Measuring</b>	Temperature [°C]	100
	Flow [mLmin <sup>-1</sup> ]	5
	Gas	N <sub>2</sub>

Figure 3: Measurement cycle.

## Pretreatment / Regeneration



<b>Cleaning</b>	<b>Temperature [°C]</b>	<b>100</b>
	<b>Flow [mLmin<sup>-1</sup>]</b>	<b>200</b>
	<b>Gas</b>	<b>N<sub>2</sub></b>

Figure 4: Cleaning/regeneration cycle.