Measurement/ data acquisition sequence proposal:

Factors (Gaseous substances): 3 (NH₃, NO, NO₂)

Levels (Concentration values): 5 (10, 20, 40, 80, 160 ppm)

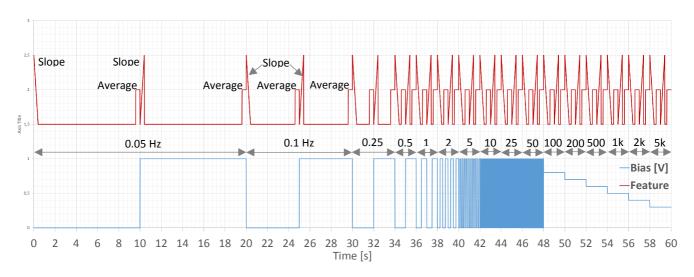
Frequency cycle (frequencies): 16 (0.05, 0.1, 0.25, 0.5, 1, 2, 5, 10, 25, 50, 100, 200,

500, 1000, 2500, 5000 Hz)

Features (slopes and averages): 64 (2 slopes and 2 averages per frequency)

Nr of data points per cycle: 64 (The calculated slope and average values)

Frequency cycle overview:



Nr of cycles per gas exposure: 5 (5 minutes gas exposure duration)

Nr of data points per gas exposure: 320 (5 cycles * 64 data points/ cycle)

Number of gas mixtures: 125 (3 gases, 5 levels, 3⁵ combinations)

Nr of gas exposures/ measurement: 375 (125 gas mixtures, 3 repetitions)

Nr of data points/ measurement: 120 000

Frequency cycle duration: 60 s

Total measurement time: 31 h 15 mins

Tabulated frequency cycle overview (frequencies and feature selection timing):

"Frequency"	Duration	Feature	Start time	End time
0.05 Hz	20 s	Slope	0 s	0.4 s
		Average	9.6 s	10.0 s
		Slope	10.0 s	10.4 s
		Average	19.6 s	20.0 s
0.1 Hz	10 s	Slope	20.0	20.4
		Average	24.6	25.0
		Slope	25.0	25.4
		Average	29.6	30.0
0.25 Hz	4 s	Slope	30.0	30.4
		Average	31.6	32.0
		Slope	32.0	32.4
		Average	33.6	34.0
0.5 Hz	2 s	Slope	34.0	34.4
		Average	34.6	35.0
		Slope	35.0	35.4
		Average	35.6	36.0
1.0 Hz	2 s	Slope	36.0	36.4
		Average	36.6	37.0
		Slope	37.0	37.4
		Average	37.6	38.0
2.0 Hz	2 s	Slope	38.0	38.4
		Average	38.6	39.0
		Slope	39.0	39.4
		Average	39.6	40.0
5.0 Hz	2 s	Slope	40.0	40.4
		Average	40.6	41.0
		Slope	41.0	41.4
		Average	41.6	42.0
10.0 Hz	2 s	Slope	42.0	42.4
		Average	42.6	43.0
		Slope	43.0	43.4
		Average	43.6	44.0
25.0 Hz	2 s	Slope	44.0	44.4
		Average	44.6	45.0
		Slope	45.0	45.4
		Average	45.6	46.0
50.0 Hz	2 s	Slope	46.0	46.4
		Average	46.6	47.0
		Slope	47.0	47.4
		Average	47.6	48.0
100 Hz	2 s	Slope	48.0	48.4
		Average	48.6	49.0
		Slope	49.0	49.4
		Average	49.6	50.0

Tabulated frequency cycle overview (continued):

"Frequency"	Duration	Feature	Start time	End time
200 Hz	2 s	Slope	50.0 s	50.4 s
		Average	50.6 s	51.0 s
		Slope	51.0 s	51.4 s
		Average	51.6 s	52.0 s
500 Hz	2 s	Slope	52.0	52.4
		Average	52.6	53.0
		Slope	53.0	53.4
		Average	53.6	54.0
1.00 kHz	2 s	Slope	54.0	54.4
		Average	54.6	55.0
		Slope	55.0	55.4
		Average	55.6	56.0
2.50 kHz	2 s	Slope	56.0	56.4
		Average	56.6	57.0
		Slope	57.0	57.4
		Average	57.6	58.0
5.00 kHz	2 s	Slope	58.0	58.4
		Average	58.6	59.0
		Slope	59.0	59.4
		Average	59.6	60.0