



INNOV

INNOV ANALYSIS SYSTEMS

LASERSMART

Quantum Cascade Laser Analyzer

450 target gasses

INNOV Analysis Systems

1 Rue Guillaume Massicot

361000 Issoudun

France

+33 2 54 03 19 61

info@INNOV-analysis.com

www.INNOV-analysis.com



the most robust multi gas analyzer available



Our innovative photoacoustic spectrometer is based on patented Helmholtz resonance cell combined with Laser Diode, Tunable Diode Laser or Quantum Cascade Laser suitable for trace gas and bulk gas detection.

The cuvette incorporate up-to 4 different laser sources this allows us to monitor up-to 8 different target gases simultaneously



Applications for more than 400 gases for:

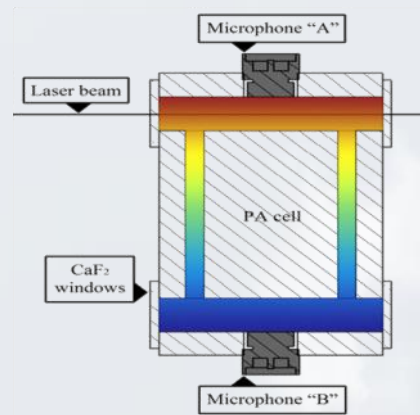
- Natural Gas
- Petrochemicals
- Refineries
- Clean Gas Supplier
- Air Monitoring
- Emission Monitoring
- Beverage Industry
- Agricultural and livestock emissions



the technology

Our innovative photoacoustic spectrometer is based on patented Helmholtz resonance cell combined with Tuneable Diode Laser or Quantum Cascade Laser suitable for trace gas and bulk gas detection.

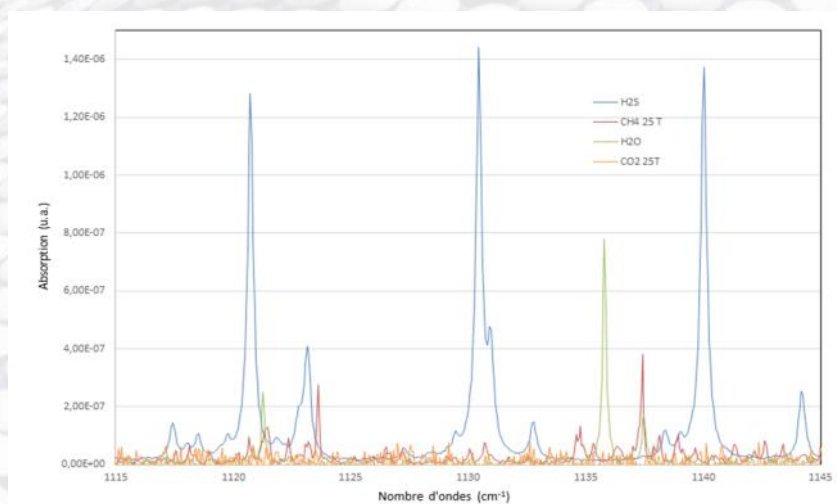
The Laser sources are specifically chosen to provide selective and interference-free measurements.



using NIR and MIR—IR spectroscopy

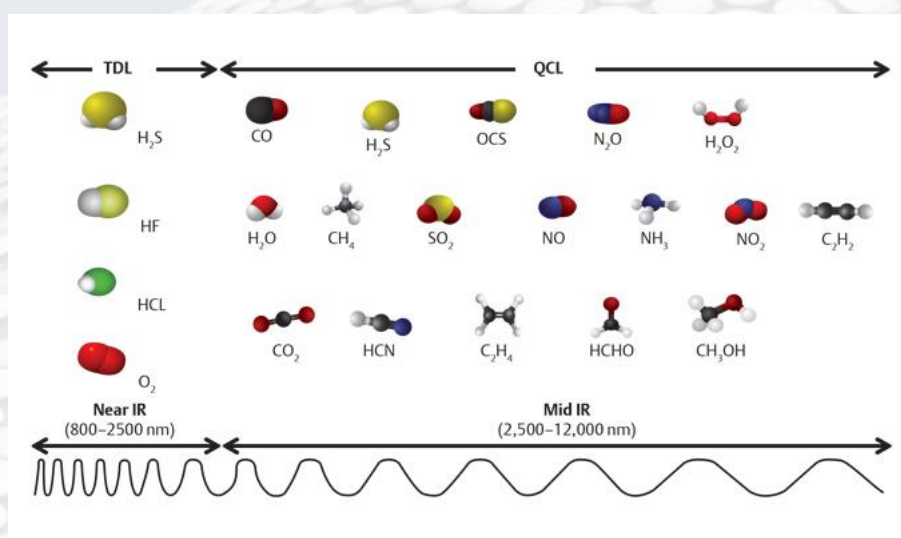
Our technology offers fast, high resolution spectroscopy to detect and identify a range of molecules in the Near-IR and Mid-IR wavelength range. Coupled with Tunable Diode Laser (TDL) spectroscopy, a single instrument is now able to broaden insight and monitor both the near and mid-infrared range of spectroscopic light.

In Mid-IR a large choice of absorption peaks that can be used. One example is shown below. The absorption peak in MIR is much bigger than in NIR. The LOD is several 0,1 ppm here.



many advantages

- **No Interference:** selective laser sources
- **Versatility:** The design of the patented PAS cell is independent of the gas detected. To change the molecules detected, one requires just to swap or to tune the QCL to the wavelength of the specific absorption band of the new molecule.
- **Zero-Background Technology.** as there is no signal as long as there is no gas.
- **Robustness:** The photoacoustic cell platform does not have any moving parts and is not sensitive to environmental vibrations because of the high-frequency acquisition rate. There are no wavelength-specific optics or mirrors.
- **High sensitivity:** The PAS can detect ppb levels with a 10-cm path length.
- **Fast sensitivity response:** due to small internal volume
- **Larger than 5 orders of magnitude measurements:** 6 orders of from ppb to a few %.
- **Linearity of the PAS Signal:** over the 5 orders of magnitude (i.e. ppm -%) without any de-convolution or interpolation. A calibration function is used outside this linear range.
- **Specific measurements:** accurate and specific measurements in complex gas matrices.
- **Use of Mid IR lasers (QCL):** Aerovia's PAS technology use QCL laser in the Mid IR spectral range. It gives access to fundamentals rays (larger peaks) of most molecules and to the detection of large molecules.



SPECIFICATIONS

Measurement Technique	IR—Photoacoustic spectroscopy
Additional Environmental sensors*	• Humidity sensor • Pressure sensor • Temperature sensor • Mass Flow
Linearity*	± 1 % of calibration full scale.
Measurements Reproducibility*	± 0.5 % of full scale
Accuracy*	± 1 % of full scale
Zero/span drift	Negligible due to zero background technique
Instrument failure alarm*	up to 4 Potential free configurable. Dedicated alarms available
Process alarm *	up to 8 Potential free configurable
Sample Gas Temperature*	-10°C to 80°C
Sample Pressure*	0.7 to 2 bar
Humidity Range	< 99 % non condensing
Sampling Gas Flow Rates*	typical : 20 l/h,
Fluidic circuit:	Immune to most Contaminants
Measurement Rate*	2Hz continuous
Inputs and outputs*	Modbus
	4—20mA
	Digital Signal out RJ-45 for TCP/IP communications
USB port	Standard USB port for data back-up
Power Supply	100—240V 50-60 Hz (on demand 24DC)
RFI protection	Conform to EN 50270 : 2006 (Product type 2)
Area classification*	ATEX IEXEx Zone 1 Exd IIC T5
Ambient conditions*	-10 - +55°C non condensing

* Typical values. Contact INNOV for other specifications, recipes, or values

REPRESENTED BY:



Uvison Technologies
 6 Nepicar Park London Road
 Sevenoaks Kent TN15 7AF UK
 T: +44 (0)1322 285850
 F: +44 (0)1322 285851
 W: uvison.com
 E: sales@uvison.com

CAS	Gas name	LOD (ppbv)	LOD (µg.m-3)
50-00-0	Formaldehyde	4	4,9
57-06-7	Allyl Isothiocyanate	43,5	176,4
57-55-6	Propylene_glycol	14,5	45,1
57-14-7	1,1-Dimethylhydrazine	7,5	18,45
60-24-2	Thioglycol	27,5	87,9
60-29-7	Diethylether	7	21,2
64-17-5	Ethanol	15	28,25
64-18-6	Formic acid	15,5	29,2
64-19-7	Acetic acid	80	58,95
64-67-5	Diethyl sulfate	11	69,35
67-56-1	Methanol	17	22,3
67-63-0	Isopropanol	7	17,2
67-64-1	Acetone	33	78,4
67-66-3	Chloroform_(trichloromethane)	170	830,05
67-68-5	Dimethyl sulfoxide	17,5	55,95
68-12-2	N,N-Dimethylformamide	11	32,9
71-23-8	1-Propanol	10	24,6
71-36-3	n-Butanol	8	24,25
71-41-0	1-Pentanol	6,5	23,45
71-43-2	Benzene	19,5	62,3
71-55-6	1,1,1-Trichloroethane	26	141,9
74-82-8	Methane	2,25	1,5
74-83-9	Methyl bromide	28	108,75
74-84-0	Ethane	2,1	2,6
74-85-1	Ethene	13	14,9
74-86-2	Acetylene	200	212,7
74-87-3	Methyl chloride	15	30,95
74-88-4	Methyl iodide	42	243,85
74-89-5	Methylamine	21,5	27,3
74-90-8	Hydrogen cyanide	60	66,35
74-93-1	Methyl mercaptan	30,5	60
74-95-3	Dibromomethane	355	2524
74-96-4	Bromoethane	21,5	95,85
74-97-5	Bromochloromethane	180	952,55
74-98-6	Propane	3,65	6,6
74-99-7	Propyne	15	24,6
75-00-3	Chloroethane	26	68,6
75-01-4	Vinyl chloride	125	319,55
75-02-5	Vinyl_fluoride	205	386
75-03-6	Ethyl iodide	28	178,65

CAS	Gas name	LOD (ppbv)	LOD (µg.m-3)
75-04-7	Ethylamine	11	20,3
75-05-8	Acetonitrile	75	125,9
75-07-0	Acetaldehyde	26	46,85
75-08-1	Ethyl_mercaptan	13	33,05
75-09-2	Dichloromethane	145	503,65
75-10-5	Difluoromethane_(R-32)	4,35	9,25
75-11-6	Diiodomethane	170	1862,3
75-15-0	Carbon disulfide	2300	7162,55
75-18-3	Dimethyl sulfide	12	30,5
75-19-4	Cyclopropane	2,85	4,9
75-21-8	Ethylene oxide	1,35	2,45
75-25-2	Tribromomethane	20,5	211,9
75-28-5	Isobutane	2,5	5,95
75-29-6	2-Chloropropane	4,15	13,35
75-30-9	2-Iodopropane	6,5	45,15
75-31-0	Isopropylamine	5,5	13,3
75-33-2	2-Propanethiol	8,5	26,5
75-34-3	1_1-Dichloroethane	13	52,6
75-35-4	1,1-Dichloroethene	2700	10705,45
75-36-5	Acetyl chloride	90	288,95
75-37-6	1_1-Difluoroethane_(Freon-152A)	6	16,2
75-43-4	Dichlorofluoromethane	27,5	115,75
75-44-5	Phosgene	1650	6675,6
75-45-6	Chlorodifluoromethane_(F22)	33	116,7
75-46-7	Trifluoromethane	8	22,9
75-50-3	Trimethylamine	3,4	31,45
75-52-5	Nitromethane	120	299,6
75-55-8	Propyleneimine	20,5	47,85
75-56-9	1_2-Epoxypropane	12,5	29,7
75-63-8	Bromotrifluoromethane	193,5	1178,5
75-65-0	t-Butyl_alcohol	6,5	19,7
75-66-1	tert-Butyl_mercaptan	7	25,8
75-68-3	1,1,1-Chlorodifluoroethane	28	115,1
75-72-9	Chlorotrifluoromethane	200	854,45
75-73-0	Carbon tetrafluoride	90	323,95
75-76-3	Tetramethylsilane	4,2	15,15
75-79-6	Methyltrichlorosilane	175	1069,9
75-83-2	2,2-Dimethyl butane	3,4	12
75-84-3	Neopentyl_alcohol	5	18,05
75-86-5	Acetone cyanohydrin	14,5	50,5

CAS	Gas name	LOD (ppbv)	LOD (µg.m-3)
75-88-7	2-Chloro-1_1_1-trifluoroethane_(R133A)	38	184,15
75-89-8	2_2_2-Trifluoroethanol	48	196,4
76-02-8	Trichloroacetyl chloride	1700	12642,6
76-06-2	Chloropicrin	150	1008,45
76-13-1	1,1,2-Trichlorotrifluoroethane	719,5	5502,9
76-14-2	1,2-Dichlorotetrafluoroethane	465	3250,65
76-15-3	Chloropentafluoroethane_(R115)	410	2590,3
76-16-4	Hexafluoroethane	270	1524,05
76-19-7	Octafluoropropane	240	1845,6
77-47-4	Hexachlorocyclopentadiene	1000	11156,25
77-78-1	Dimethyl_sulfate	13,5	69,65
78-59-1	Isophorone	5,5	31,1
78-78-4	Isopentane	4,05	11,95
78-79-5	Isoprene	30	83,6
78-83-1	Isobutanol	6	18,2
78-84-2	2-Methyl-1-propanal_(Isobutyraldehyde)	9,5	28,05
78-85-3	2-Methyl-2-propanal_(Isobutenal)	26	74,55
78-87-5	1,2-Dichloropropane	20,5	94,75
78-88-6	2_3-Dichloro-1-propene	65	295
78-92-2	sec-Butyl_alcohol	7,5	22,75
78-93-3	Methyl ethyl ketone	15	44,25
78-94-4	Methyl vinyl ketone	85	243,65
78-95-5	Chloroacetone	100	378,45
78-98-8	Methylglyoxal	14	41,25
79-00-5	1,1,2-Trichloroethane	55	300,1
79-01-6	Trichloroethylene	49	263,3
79-09-4	Propionic_acid_(and_some_dimer)	22	66,65
79-10-7	Acrylic_acid	225	663,2
79-20-9	Methyl acetate	22	66,65
79-22-1	Methyl chloroformate	18	69,55
79-24-3	Nitroethane	50	153,5
79-29-8	2_3-Dimethylbutane	3,1	10,95
79-34-5	1,1,2,2-Tetrachloroethane	70	480,55
79-38-9	Chlorotrifluoroethylene	295	1404,55
79-44-7	Dimethylcarbamoyl_chloride	16,5	72,6
79-46-9	2-Nitropropane	18,5	67,4
80-56-8	alpha-Pinene	2,8	15,6
80-62-6	Methyl methacrylate	15,5	63,45
87-62-7	2_6-Dimethylaniline	16,5	81,8
87-68-3	Hexachloro-1_3-butadiene	1800	19197,05

CAS	Gas name	LOD (ppbv)	LOD (µg.m-3)
90-05-1	Guaiacol	19	96,45
91-10-1	2_6-dimethoxyphenol	13	81,95
91-20-3	Naphthalene	8,5	44,55
91-22-5	Quinoline	19,5	103
91-66-7	N,N-Diethylaniline	5,5	33,6
93-58-3	Methyl_benzoate	14,5	80,75
93-89-0	Ethyl_benzoate	12,5	76,8
95-47-6	o-Xylene	17,5	76
95-49-8	2-Chlorotoluene	31	160,5
95-50-1	1,2-Dichlorobenzene	29	174,35
95-53-4	o-Toluidine	22	96,4
96-09-3	Styrene_oxide	13	63,9
96-14-0	3-Methylpentane	3,55	12,5
96-22-0	Diethyl ketone	9,5	33,45
96-33-3	Methyl acrylate	24	84,5
98-00-0	Furfuryl_alcohol	44,5	178,55
98-01-1	Furfural	23,5	92,35
98-06-6	tert-Butylbenzene	4,1	22,5
98-82-8	Cumene	5,5	27,05
98-95-3	Nitrobenzene	36	181,25
100-44-7	Benzyl chloride	26,5	137,65
100-39-0	Benzyl bromide	24	167,9
100-40-3	4-Vinyl-1-cyclohexene	7	30,95
100-41-4	Ethyl benzene	9,5	41,25
100-42-5	Styrene_(monomer)	22	93,7
100-47-0	Benzonitrile	41	172,9
100-51-6	Benzyl_alcohol	26	115
100-52-7	Benzaldehyde	15,5	67,3
100-69-6	2-Vinylpyridine	24	103,2
100-80-1	Vinyl_toluene	19,5	94,25
103-65-1	Isocumene	8,5	41,8
104-76-7	2-Ethyl-1-hexanol	3,5	18,65
105-19-6	3-Methoxyphenol	16	81,25
105-45-3	Methyl_acetoacetate	19,5	92,6
105-54-4	Ethyl_butyrate	7	33,25
106-24-1	Geraniol	6,5	41
106-94-5	2-Bromopropane	7	35,2
106-42-3	p-Xylene	14	60,8
106-43-4	4-Chlorotoluene	30,5	157,9
106-46-7	1,4-Dichlorobenzene	175	1052,15

CAS	Gas name	LOD (ppbv)	LOD (µg.m-3)
106-93-4	1,2-Dibromoethane	95	729,9
106-88-7	1,2-Epoxybutane	10,5	30,95
106-89-8	1_2-Epoxy-3-chloropropane	36	136,2
106-94-5	1-Bromopropane	11,5	57,85
106-95-6	Allyl bromide	75	371,1
106-97-8	Butane	5	11,85
106-98-9	1-Butene	13	29,85
106-99-0	1,3-Butadiene	39,5	87,4
107-00-6	1-Butyne	9	19,9
107-01-7	2-Butene	15,5	35,6
107-02-8	Acrolein	27	61,9
107-03-9	1-Propanethiol	10	31,15
107-05-1	Allyl chloride	76,5	239,45
107-07-3	2-Chloroethanol	29,5	97,15
107-11-9	Allylamine	41,5	96,9
107-12-0	Ethyl cyanide	18	40,55
107-13-1	Acrylonitrile	323,5	702,1
107-14-2	Chloroacetonitrile	75	231,6
107-15-3	Ethylenediamine	16	39,35
107-18-6	Allyl alcohol	37	87,9
107-19-7	Propargyl_alcohol	66	151,35
107-21-1	Ethylene glycol	15,5	39,35
107-22-2	Glyoxal	9	21,35
107-30-2	Chloromethyl methyl ether	18	59,25
107-31-3	Methyl formate	20	49,1
107-39-1	2_4_4-Trimethyl-1-pentene	4,1	18,85
107-83-5	2-Methylpentane	3,45	11,9
107-87-9	Methyl_propyl_ketone	10	35,2
107-92-6	Butyric acid	13	46,85
107-06-2	1,2-Dichloroethane	70	283,3
108-03-2	1-Nitropropane	15,5	56,5
108-05-4	Vinyl_acetate	90	316,9
108-10-1	Methylisobutyl ketone	6,5	26,6
108-18-9	Diisopropylamine	3,35	13,85
108-20-3	Diisopropyl_ether	3	12,55
108-21-4	Isopropyl acetate	7,5	31,35
108-24-7	Acetic anhydride	140	584,05
108-32-7	Propylene_carbonate	16	66,8
108-38-3	m-Xylene	16,5	71,65
108-39-4	m-Cresol	25,5	112,8

CAS	Gas name	LOD (ppbv)	LOD (µg.m-3)
108-41-8	3-Chlorotoluene	41	212,25
108-91-8	Aniline	18	68,55
108-67-8	1,3,5-Trimethylbenzene	10	49,15
108-98-5	Benzenethiol	21	94,6
108-86-1	Bromobenzene	25	160,55
108-88-3	Toluene	19,5	73,5
108-89-4	4-Picoline	28,5	108,55
108-90-7	Chlorobenzene	23	105,35
108-93-0	Cyclohexanol	2,55	10,45
108-94-1	Cyclohexanone	3,6	14,45
108-95-2	Phenol	29,5	113,55
108-95-2	Phenol	29,5	113,55
108-99-6	3-Picoline	24	91,4
109-06-8	2-Picoline	28,5	108,55
109-60-4	Propyl acetate	8,5	35,5
109-66-0	Pentane	4,6	13,6
109-67-1	1-Pentene	12,5	35,85
109-69-3	1-Chlorobutane	8,5	32,15
109-73-9	Butylamine	8,5	25,4
109-86-4	2-Methoxyethanol	10	31,1
109-87-5	Dimethoxymethane	7	21,8
109-89-7	Diethylamine	7,5	22,45
109-92-2	Ethylvinyl ether	11,5	33,9
109-94-4	Ethylformate	13	39,4
109-95-5	Ethyl nitrite	19,5	59,85
109-99-9	Tetrahydrofuran	4,25	12,55
110-00-9	Furan	475	1322,6
110-01-0	Tetrahydrothiophene	7	25,25
110-02-1	Thiophene	55	189,25
110-12-3	Methyl_isoamyl_ketone	4,65	21,7
110-19-0	Isobutyl acetate	6	28,5
110-54-3	n-Hexane	4,3	15,15
110-62-3	Valeraldehyde	9	31,7
110-71-4	1_2-Dimethoxyethane	7,5	27,65
110-82-7	Cyclohexane	1,05	3,6
110-83-8	Cyclohexene	3,1	10,4
110-86-1	Pyridine	24,5	79,25
110-89-4	Piperidine	1,8	6,3
110-91-8	Morpholine	6	21,35
111-15-9	2-Ethoxyethyl acetate	9,5	51,35

CAS	Gas name	LOD (ppbv)	LOD (µg.m-3)
111-27-3	1-Hexanol	4,65	19,45
111-36-4	n-Butyl_isocyanate	7,5	30,4
111-43-3	Dipropyl_ether	6	25,05
111-44-4	bis(2-Chloroethyl)_ether	20	116,95
111-65-9	Octane	3,05	14,25
111-66-0	1-Octene	4,05	18,6
111-70-6	1-Heptanol	3,55	16,85
111-76-2	2-Butoxyethanol	5,5	26,6
111-84-2	n-Nonane	2,35	12,35
115-07-1	Propene	22,5	38,7
115-10-6	Dimethyl ether	9,5	17,9
115-11-7	Isobutene	11	25,25
115-25-3	Octafluorocyclobutane	235	1922,6
116-09-6	Acetol	33,5	101,5
119-36-8	Methyl_salicylate	13,5	84,05
119-64-2	1_2_3_4-Tetrahydronaphthalene	3,7	20
121-44-8	Triethylamine	3,25	13,45
123-35-3	Myrcene	11	61,3
123-38-6	Propionaldehyde	16	38
123-42-2	Diacetone_alcohol	7,5	35,65
123-51-3	Isoamyl alcohol	5	18
123-63-7	Paraldehyde	2,95	15,95
123-72-8	Butyraldehyde	12	35,4
123-73-9	Crotonaldehyde	27,5	78,85
123-86-4	Butyl acetate	6	28,5
123-91-1	1_4-Dioxane	2,7	9,75
123-92-2	Isopentyl_acetate	4,3	22,9
124-07-2	Octanoic_acid	3,65	21,55
124-11-8	1-Nonene	3,15	16,25
124-18-5	n-Decane	1,95	11,35
124-38-9	Carbon dioxide	0,3	0,55
124-40-3	Dimethylamine	11,5	21,2
124-63-0	Methanesulfonyl chloride	445	2084,8
124-73-2	1,2-Dibromotetrafluoroethane	360	3825,65
126-98-7	Methylacrylonitrile	15,5	42,55
127-18-4	Tetrachloroethylene	2050	13903,95
127-91-3	beta-Pinene	3,8	21,2
135-98-8	sec-Butylbenzene	4,65	25,55
140-88-5	Ethyl_acrylate	12,5	51,2
141-46-8	Glycolaldehyde	16	39,3

CAS	Gas name	LOD (ppbv)	LOD (µg.m-3)
141-78-6	Ethyl acetate	13	46,85
142-28-9	1,3-Dichloropropane	17,5	80,9
142-29-0	Cyclopentene	7,5	20,9
142-62-1	1-Hexanoic acid	7	33,25
142-82-5	n-Heptane	3,9	16
142-92-7	Hexyl acetate	5	29,5
156-59-2	cis-1_2-Dichloroethylene	18,5	73,35
156-60-5	trans-1,2-Dichloroethene	44	174,45
287-92-3	Cyclopentane	2,4	6,9
291-64-5	Cycloheptane	1,75	7,05
292-64-8	Cyclooctane	2	9,2
293-96-9	Cyclodecane	2,25	12,9
302-01-2	Hydrazine	1519	1991,15
306-83-2	2,2-Dichlor-1,1,1-trifluoroethane	75	469,1
334-99-6	Trifluoronitrosomethane	490	1984,25
352-93-2	Diethyl_sulfide	9,5	35,05
353-50-4	Carbonyl fluoride	170	458,95
354-14-3	1_1_2_2-Tetrachloro-1-fluoroethane_(F121)	80	608,05
354-23-4	1,2-Dichlorotrifluoroethane	95	594,2
354-25-6	1-Chloro-1_1_2_2-tetrafluoroethane_(R124A)	39,5	220,5
354-32-5	Trifluoroacetyl chloride	650	3521,7
354-33-6	Pentafluoroethane	27	132,55
355-25-9	Perfluorobutane	305	2969,25
359-35-3	1,1,2,2-Tetrafluoroethane	14	58,4
371-62-0	2-Fluoroethanol	10,5	27,5
373-14-8	1-Fluorohexane	4,6	19,6
373-80-8	Trifluoromethylsulfur_pentafluoride	122,5	982,3
382-10-5	Hexafluoroisobutylene	460	3086,4
382-21-8	Perfluoroisobutylene_(PFIB)	170	1390,8
383-63-1	Ethyl_trifluoroacetate	19,5	113,3
392-56-3	Hexafluorobenzene	55	418,5
407-25-0	Trifluoroaceticanhydride	220	1889,85
420-12-2	Ethylene sulfide	8,5	20,9
420-46-2	1_1_1-Trifluoroethane_(R143A)	15	51,55
421-50-1	1,1,1-Trifluoroacetone	280	1283,2
430-51-3	Fluoroacetone	43,5	135,35
430-57-9	1_2-Dichloro-1-fluoroethane_(R141)	60	287
431-03-8	2_3-butanedione	105	369,75
431-06-1	1_2-Difluoro-1_2-dichloroethane_(R132)	41	226,3

CAS	Gas name	LOD (ppbv)	LOD (µg.m-3)
431-89-0	1_1_1_2_3_3_3-Heptafluoropropane_(HFC227EA)	130	904,05
462-06-6	Fluorobenzene	35	137,55
462-94-2	Cadaverine	4,5	18,8
463-49-0	Allene	130	213
463-58-1	Carbonyl sulfide	64,5	158,3
470-82-6	Cineole	3,6	22,7
471-43-2	1_1-Difluoro-2_2-dichloroethane_(R132A)	36	198,7
488-23-3	1_2_3_4-Tetramethylbenzene	9,5	52,15
506-77-4	Cyanogen chloride	80	201,15
513-35-9	2-Methyl-2-butene	10	28,7
513-36-0	1-Chloro-2-methylpropane	6,5	24,6
513-44-0	2-Methyl-1-propanethiol	6	22,15
527-53-7	1_2_3_5-Tetramethylbenzene	8,5	46,65
534-22-5	2-Methylfuran	14,5	48,7
540-59-0	1_2-Dichloroethene_(Dioform)	21,5	85,25
540-67-0	Ethyl methyl ether	10,5	25,8
540-84-1	Isooctane	2,4	11,2
540-88-5	tert-Butyl acetate	6,5	30,9
541-41-3	Ethyl chloroformate	18,5	82,1
541-73-1	1,3-Dichlorobenzene	85	511,05
543-59-9	1-Chloropentane	7	30,5
544-76-3	n-Hexadecane	0,85	7,9
547-63-7	Methyl isobutyrate	8,5	35,5
554-12-1	Methyl propionate	14	50,45
554-61-0	2-Carene	5	27,85
556-56-9	Allyl iodide	55	377,9
556-61-6	Methylisothiocyanate	25	74,75
558-17-8	2-Iodo-2-methylpropane	15	112,9
563-45-1	3-Methyl-1-butene	6	17,2
563-46-2	2-Methyl-1-butene	9	25,8
563-80-4	Methyl isopropyl ketone	8,5	29,95
565-61-7	3-Methyl-2-pentanone	7	28,7
584-02-1	3-Pentanol	6	21,65
584-84-9	2_4-Diisocyanatetoluene	8	56,95
589-34-4	3-Methylhexane	3,2	13,1
590-86-3	Isovaleraldehyde	6	21,15
591-78-6	2-Hexanone	8	32,8
592-41-6	1-Hexene	8	27,55
592-76-7	1-Heptene	5,5	22,1

CAS	Gas name	LOD (ppbv)	LOD (µg.m-3)
593-53-3	Methyl fluoride	3,65	5,1
593-60-2	Vinyl_bromide	165	721,75
594-39-8	tert-Amylamine	5,5	19,6
598-98-1	Methyl_pivalate	7	33,25
611-14-3	2-Ethyltoluene	7	34,4
616-38-6	Dimethyl_carbonate	13	47,9
617-84-5	N_N-diethyl_formamide	5,5	22,75
620-14-4	3-Ethyltoluene	8	39,35
622-96-8	4-Ethyltoluene	8,5	41,8
623-93-8	5-Nonanol	3,25	19,2
624-65-7	Propargyl_chloride	132	402,2
624-83-9	Methylisocyanate	33	77
624-91-9	Methyl nitrite	28,5	71,15
624-92-0	Dimethyl_disulfide	9	34,7
625-27-4	2-Methyl-2-Pentene	7	24,1
625-30-9	sec-Amylamine	5,5	19,6
626-89-1	4-Methyl-1-pentanol	4,4	18,4
626-93-7	2-Hexanol	5,5	23
627-20-3	cis-2-Pentene	10,5	30,1
628-28-4	Methyl butyl ether	7,5	27,05
628-34-2	2-Chloroethylether	12	53,3
628-63-7	n-Amyl_acetate	6	31,95
629-50-5	n-Tridecane	1,25	9,4
629-62-9	n-Pentadecane	1	8,7
630-20-6	1,1,1,2-Tetrachloroethane	48,5	332,95
637-92-3	Ethyl_tert-butyl_ether	3,45	14,4
646-04-8	trans-2-Pentene	8,5	24,4
674-82-8	Diketene	330	1134,75
676-83-5	Dichloromethylphosphine	95	454,25
678-26-2	Perfluoropentane	255	2378,4
680-31-9	Hexamethylphosphoramide	3,25	23,85
684-16-2	Hexafluoroacetone	365	2478,45
691-37-2	4-Methyl-1-pentene	6	20,65
691-38-3	cis-4-Methyl-2-pentene	5,5	18,95
760-23-6	3_4-Dichloro-1-butene	60	306,75
763-29-1	2-Methyl-1-pentene	7,5	25,8
811-97-2	1,1,1,2-Tetrafluoroethane	39,5	164,8
814-68-6	Acryloyl chloride	240	888,45
818-92-8	Allyl_fluoride	17	41,75
821-55-6	2-Nonanone	4	23,25

CAS	Gas name	LOD (ppbv)	LOD (µg.m-3)
920-46-7	Methacryloyl chloride	43	183,85
930-27-8	3-Methylfuran	23,5	78,9
994-05-8	tert-Amyl_methyl_ether	3,8	15,9
1002-16-0	Amyl_nitrate	6	32,7
1072-43-1	Propylene_sulfide	16,5	50,05
1120-21-4	n-Undecane	1,65	10,55
1189-71-5	Chlorosulfonyl isocyanate	65	376,25
1634-04-4	tert-Butyl_methyl_ether	3,9	14,05
1717-00-6	1_1-Dichloro-1-fluoroethane_(R141B)	20,5	98,05
2074-87-5	Cyanogen	70	149
2696-92-6	Nitrosyl chloride	187,5	502
2699-79-8	Sulfuryl fluoride	100	417,45
2837-89-0	2-Chloro-1,1,1,2-tetrafluoroethane	37	206,5
3188-13-4	Chloromethyl ethyl ether	16	61,85
3777-69-3	2-Pentylfuran	5,5	31,1
4109-96-0	Dichlorosilane	500	2065,6
5989-27-5	d-Limonene	5,5	30,65
6032-29-7	2-Pentanol	6	21,65
5/09/7446	Sulfur dioxide	187,5	491,25
2/07/7637	Boron trifluoride	195	540,85
7647-01-0	Hydrogen chloride	2,1	3,15
7664-39-3	Hydrogen fluoride	1600	1309,2
7664-41-7	Ammonia	2150	1497,6
7697-37-2	Nitric acid	80	206,2
7722-84-1	Hydrogen_peroxide	115	160
7732-18-5	Water	800	589,45
7782-65-2	Germane	305	956,05
4/06/7783	Hydrogen sulfide	2850	3972,5
7783-54-2	Nitrogen trifluoride	1750	5081,95
7784-42-1	Arsine	550	1752,85
7791-25-5	Sulfuryl chloride	500	2760
7803-51-2	Phosphine	3,8	5,3
7803-62-5	Silane	310	407,25
10024-97-2	Nitrous oxide	43,5	78,3
10025-87-3	Phosphorous oxychloride	360	2257,65
10028-15-6	Ozone	360	706,5
10034-85-2	Hydrogen iodide	2200	11509,4
10035-10-6	Hydrogen bromide	13	43,05
10061-01-5	cis-1,3-Dichloropropene	115,5	524,2
10061-02-6	trans-1,3-Dichloropropene	65	295

CAS	Gas name	LOD (ppbv)	LOD (µg.m-3)
10102-44-0	Nitrogen dioxide	25	47,05
10544-72-6	Dinitrogen tetroxide	26	97,85
13429-24-8	Hexafluoropropene	330	4049,75
13463-40-6	Ironpentacarbonyl	110	881,3
13466-78-9	3-Carene	7	39
19287-45-7	Diborane	4,15	4,7
22083-74-5	Nicotine	6	39,8
25265-77-4	Texanol	3,15	27,85
34590-94-8	Dipropylene_glycol_methyl_ether	6	36,35
39761-57-4	2_2_4-Trimethyl-2-pentene	4,25	19,5
138495-42-8	2H__3H-Perfluoropentane	170	876,25