ANALYSIS TECHNIQUES
Gas Chromatography

AIR LIQUIDE

TCD Thermal Conductivity Detector

Recommended Gases	Measurement Range - dissolved sample: g/l | 0.1 g/l | 0.01 g/l | 10 mg/l | <1 mg/l Measurement Range - gas-phase sample (mole/mole): % | <1000 ppm | <100 ppm | <10 ppm | <1 ppm
Vector	
Nitrogen(N_2) or Argon	***Alphagaz 1***
Nitrogen or Hydrogen	***Alphagaz 1***
Other	
Mixtures (gas analysis)	Standard Mixtures
Cardon Dioxide(cooling)	CO_2 Dip Tube

FID Flame Ionization Detector

Recommended Gases	Measurement Range - dissolved sample: g/l | 0.1 g/l | 0.01 g/l | 10 mg/l | <1 mg/l Measurement Range - gas-phase sample (mole/mole): % | <1000 ppm | <100 ppm | <10 ppm | <1 ppm
Vector	
Helium or Argon	***Alphagaz 1*** ***Alphagaz 2*** N60
Nitrogen or Hydrogen	***Alphagaz 1*** ***Alphagaz 2*** N60
Flame	
Hydrogen and	***Alphagaz 1***
Air	***Alphagaz 1***
Other	
Mixtures (gas analysis)	Standard Mixtures
Cardon Dioxide(cooling)	CO_2 Dip Tube
FID with Methanizer	
Process Gas: Hydrogen	***Alphagaz 1*** ***Alphagaz 2***
Hydrogen / Helium mix	H_2 / He Mixture

ECD Electron Capture Detector

Recommended Gases	Measurement Range - dissolved sample: g/l | 0.1 g/l | 0.01 g/l | 10 mg/l | <1 mg/l Measurement Range - gas-phase sample (mole/mole): % | <1000 ppm | <100 ppm | <10 ppm | <1 ppm
Vector	
Nitrogen or Helium or	N_2 ECD or He ECD
Argon and Methane	Ar/CH_4 90/10 or 95/5
Other	
Standard (gas analysis)	Standard Mixtures
Regeneration gas	H_2 N60 ***Alphagaz 2***

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Gas Chromatography

AIR LIQUIDE

MS Mass Spectrometer

Recommended Gases	Measurement Range - dissolved sample: g/l | 0.1 g/l | 0.01 g/l | 10 mg/l | <1 mg/l Measurement Range - gas-phase sample (mole/mole): % | <1000 ppm | <100 ppm | <10 ppm | <1 ppm
Vector	
Hydrogen or Nitrogen	***Alphagaz 1*** | ***Alphagaz 2***
Argon or Helium	***Alphagaz 1*** | ***Alphagaz 2***
Open Split	
Helium	***Alphagaz 1*** | ***Alphagaz 2***
Other	
Standard(gas analysis) for chemical ionization	Standard Mixtures CH_4 NH_3 Ar Xe etc

PID Photo-ionization Detector

Recommended Gases	Measurement Range - dissolved sample: g/l | 0.1 g/l | 0.01 g/l | 10 mg/l | <1 mg/l Measurement Range - gas-phase sample (mole/mole): % | <1000 ppm | <100 ppm | <10 ppm | <1 ppm
Vector	
Nitrogen or Hydrogen	***Alphagaz 1*** | ***Alphagaz 2***
Argon or Helium	***Alphagaz 1*** | ***Alphagaz 2***
Other	
Standard (gas analysis)	Standard Mixtures

FPD Sulfer Phosphorus Flame Photometry Detector

Recommended Gases	Measurement Range - dissolved sample: g/l | 0.1 g/l | 0.01 g/l | 10 mg/l | <1 mg/l Measurement Range - gas-phase sample (mole/mole): % | <1000 ppm | <100 ppm | <10 ppm | <1 ppm
Vector	
H_2 or Argon or Helium	***Alphagaz 2***
Nitrogen	N_2 N60
Flame	
Hydrogen and AIR	***Alphagaz 2***
	AIR N57
Other	
Standard(gas analysis)	Standard Mixtures

AIR LIQUIDE

NPD Nitrogen Phosphorus Flame Photometry Detector

Recommended Gases	Measurement Range - dissolved sample g/l | 0.1 g/l | 0.01 g/l | 10 mg/l | <1 mg/l Measurement Range - gas-phase sample (mole/mole) % | <1000 ppm | <100 ppm | <10 ppm | <1 ppm
Vector H_2 or Argon or Helium Nitrogen	**Alphagaz 2** N_2 N60
Flame Hydrogen and Air	**Alphagaz 2** Air N57
Other Standard(gas analysis)	Standard Mixtures