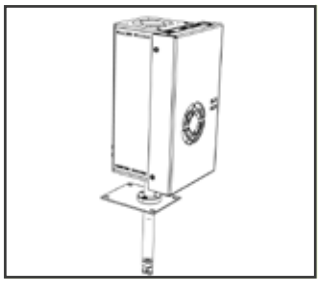
C8 to C24 analysis

APPLICATIONS

Coupling of NanoPix to a traditional GC allows the analysis of refinery gas such as C8 to C24 hydrocarbons with an efficient sensitivity due to its innovative NGD detector.

SYSTEMS



NanoPix®

SAMPLE

Standard Linear Hydrocarbons sample from C8 to C24 integrating pristane and phytane compounds (solution at 1000ppm)

CONCLUSIONS

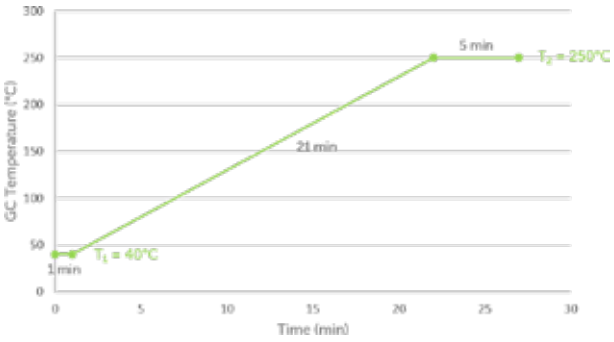
NanoPix integrating the new NGD detector is a useful new tool that can be installed on your conventionnal lab GC, to replace TCD or FID detector.
NGD sensitivity performances allow to detect heavy compounds (up to C40). Analysis of C8 to C24 sample as presented here gives access to many sectors of petrochemical applications.

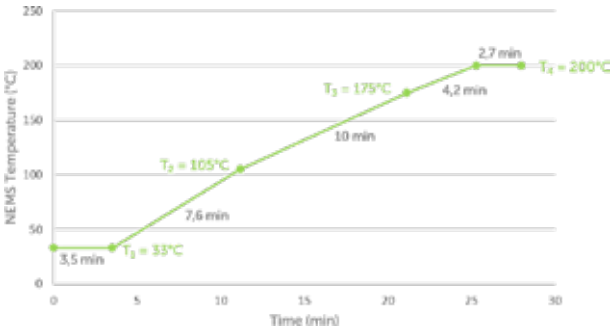
METHOD

GC temperature	**See temperature ramp below**
NEMS temperature	**See temperature ramp below**
Type of column	**100% dimethyle polysiloxane**
Length of column	**30 m**
Internal diameter	**0.25 mm**
Stationnary phase thickness	**0.25 µm**
Pressure	**2 bar**
Split Ratio	**1 : 20**
Injected volume	**1 µL**
Transfer Line temperature	**60°C (1 min) and ramp (10°C/min) to 250°C (8min)**

RESULTS

		LOD	LOQ	RSD
1	nC8	70ppbv	200ppbv	1.2%
2	nC9	50ppbv	150ppbv	1.4%
3	nC10	30ppbv	90ppbv	1.5%
4	nC12	30ppbv	90ppbv	1.6%
5	nC14	30ppbv	90ppbv	1.7%
6	nC16	28ppbv	90ppbv	1.9%
7	nC17	22ppbv	65ppbv	1.7%
8	Pristane	20ppbv	60ppbv	2.0%
9	nC18	15ppbv	45ppbv	2.1%
10	Phytane	20ppbv	60ppbv	2.3%
11	nC20	15ppbv	45ppbv	2.6%
12	nC24	18ppbv	54ppbv	2.4%





CHROMATOGRAM