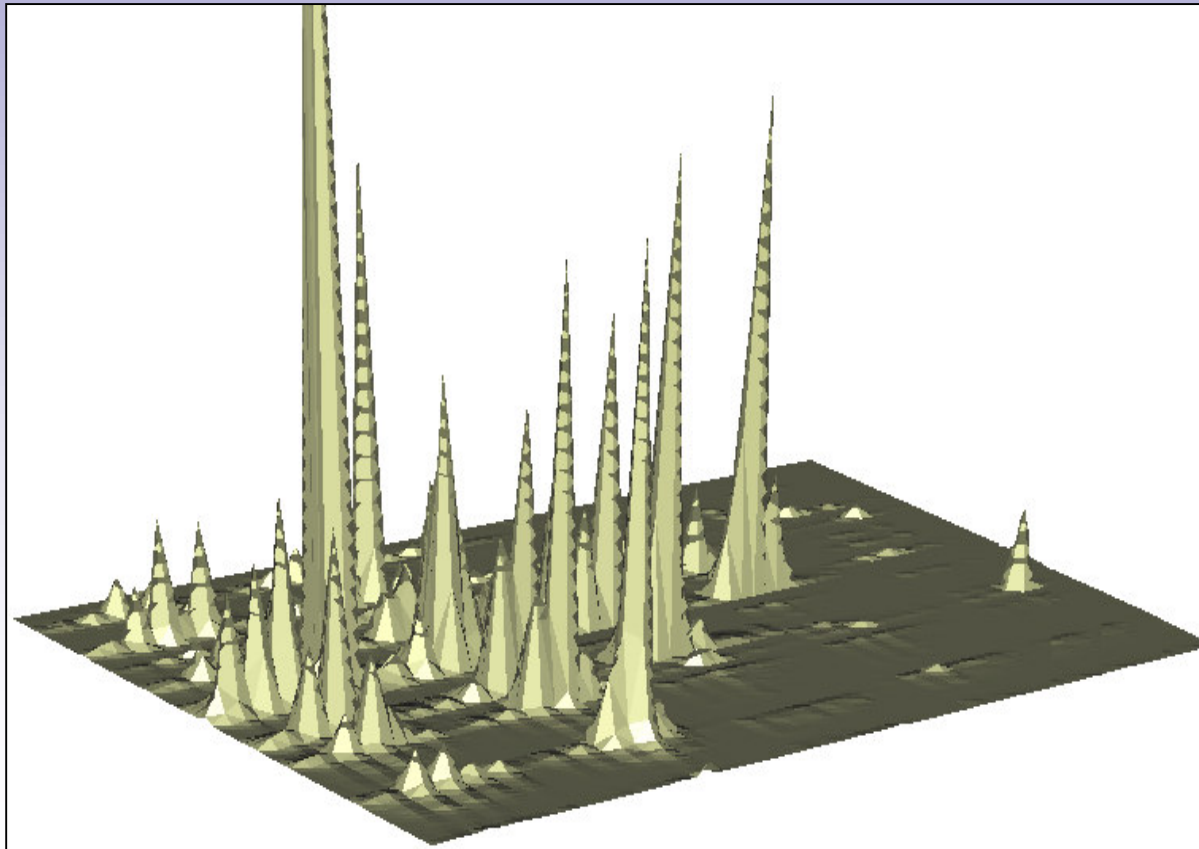


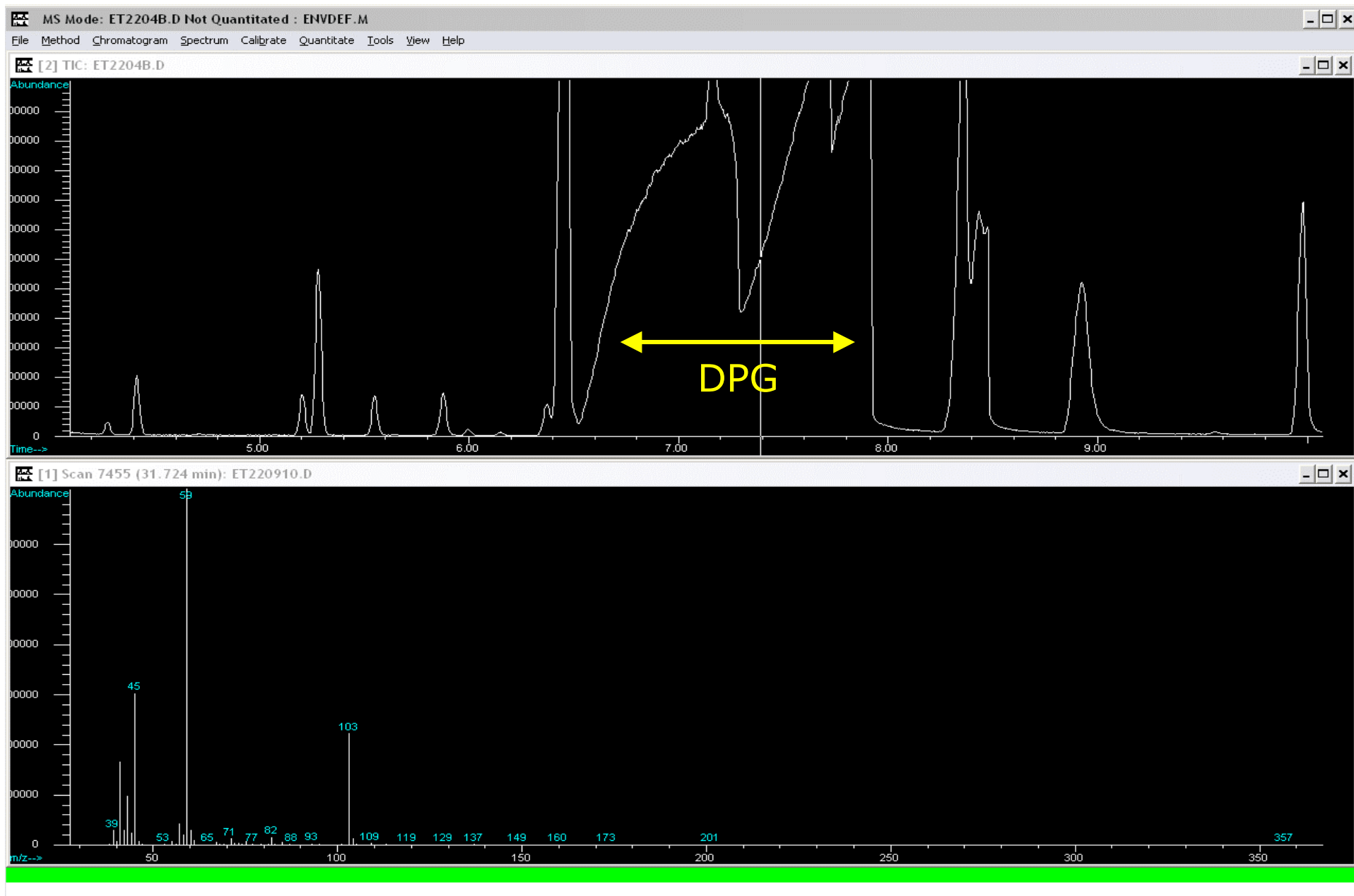
GC Multidimensionnelle Huiles Essentielles en Parfumerie



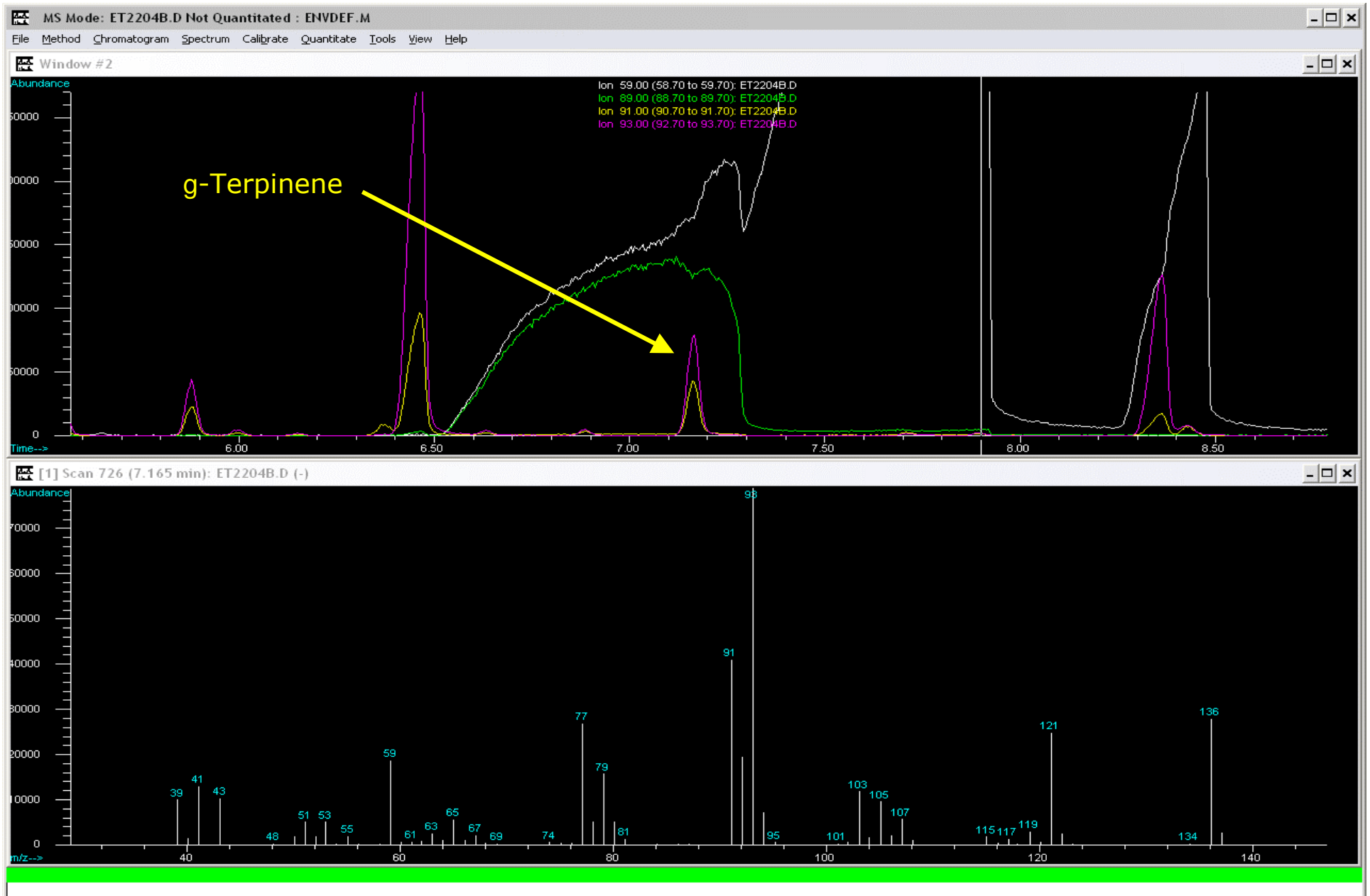
CECM Carros – 19 juin 2007

Christian Soulier
R&D - Argeville S.A.

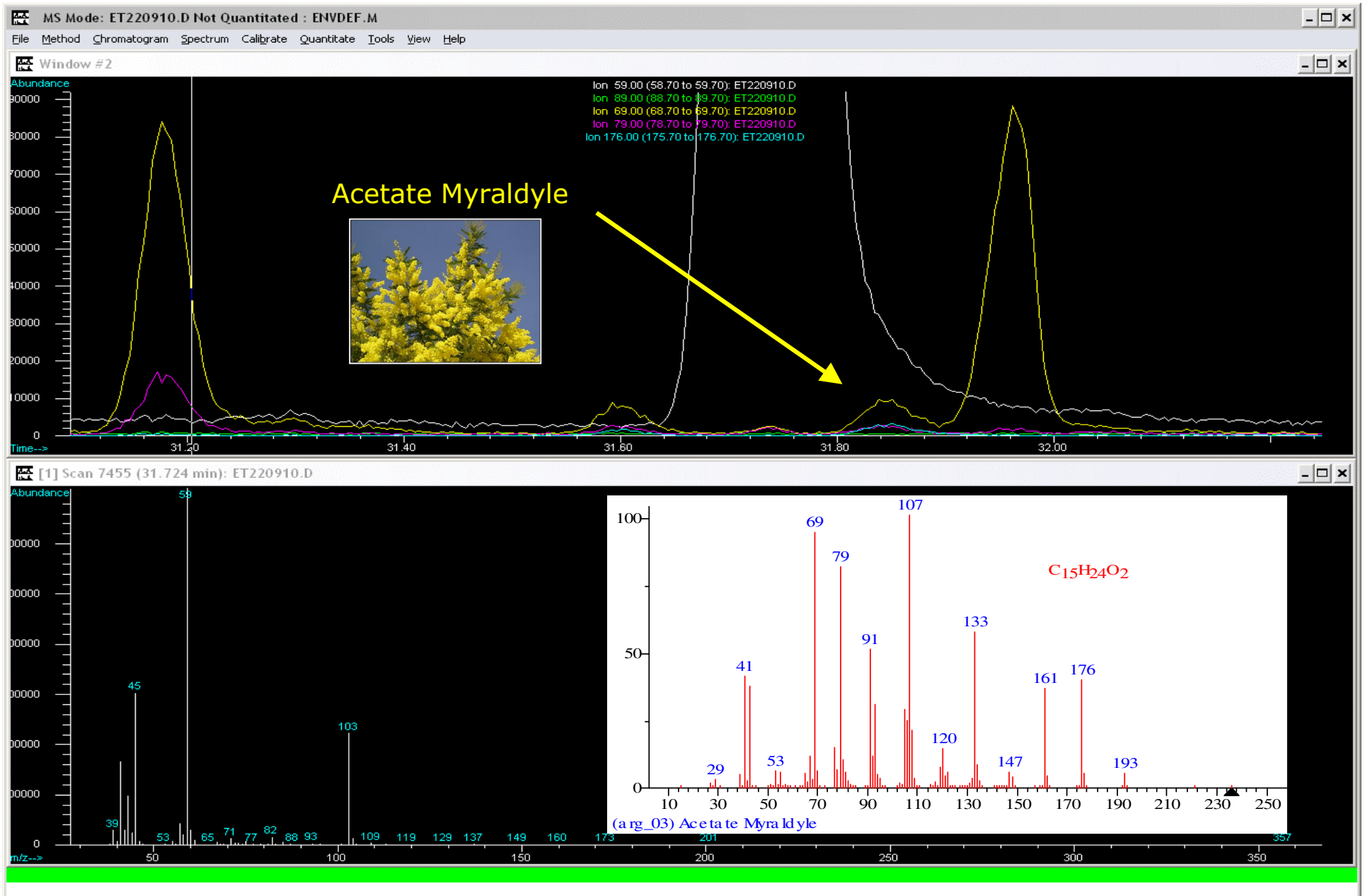
argeville



Techniques monodimensionnelles

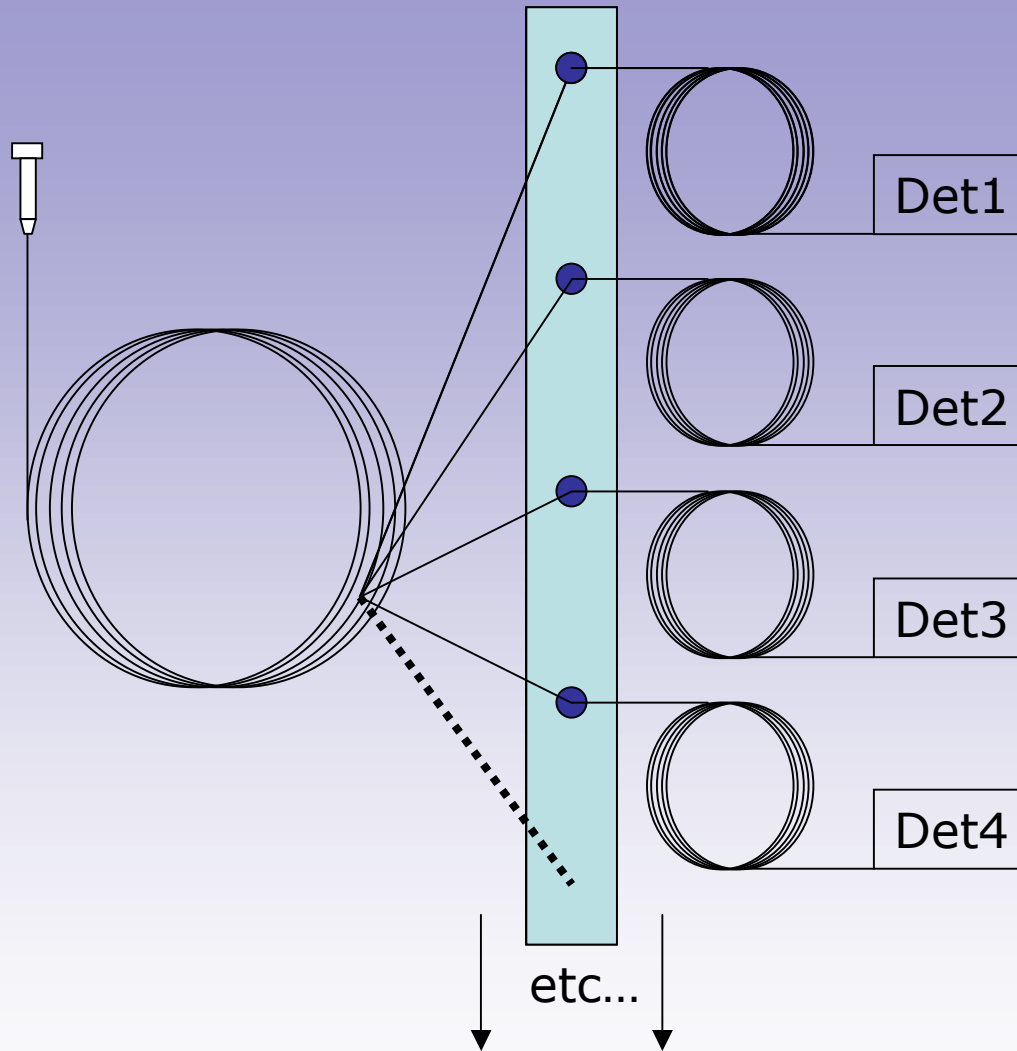


Techniques monodimensionnelles

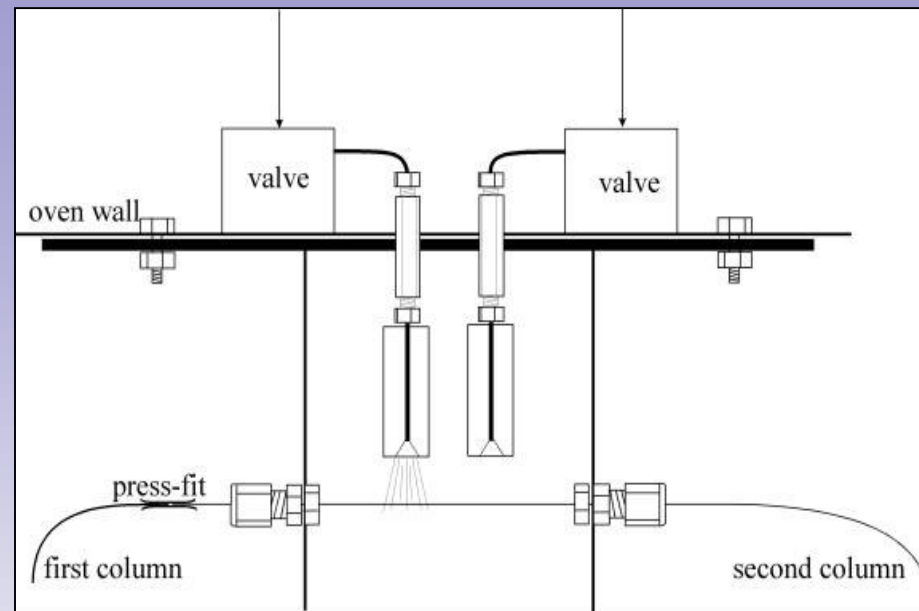


Techniques monodimensionnelles

Transfert

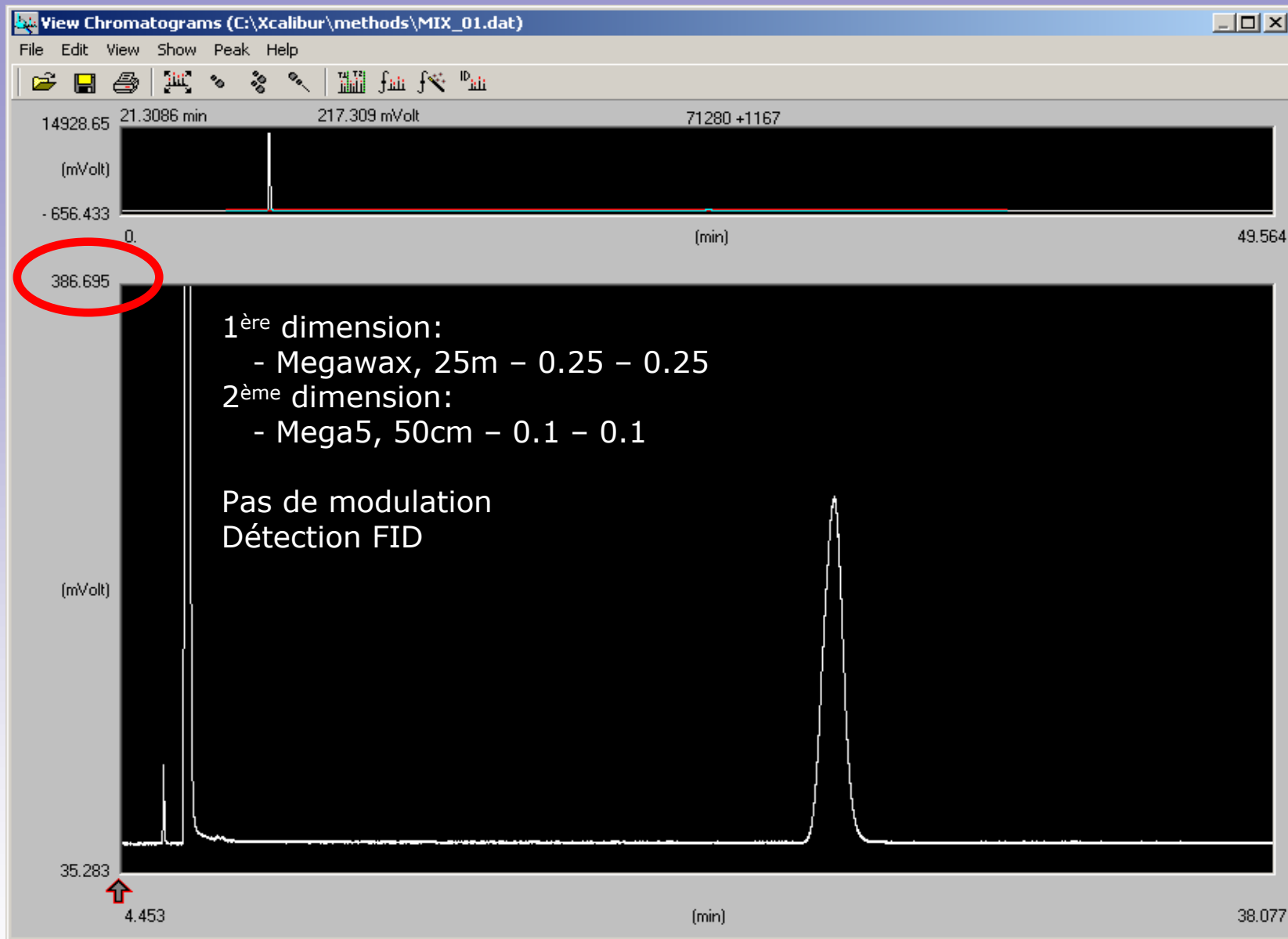


Techniques bidimensionnelles

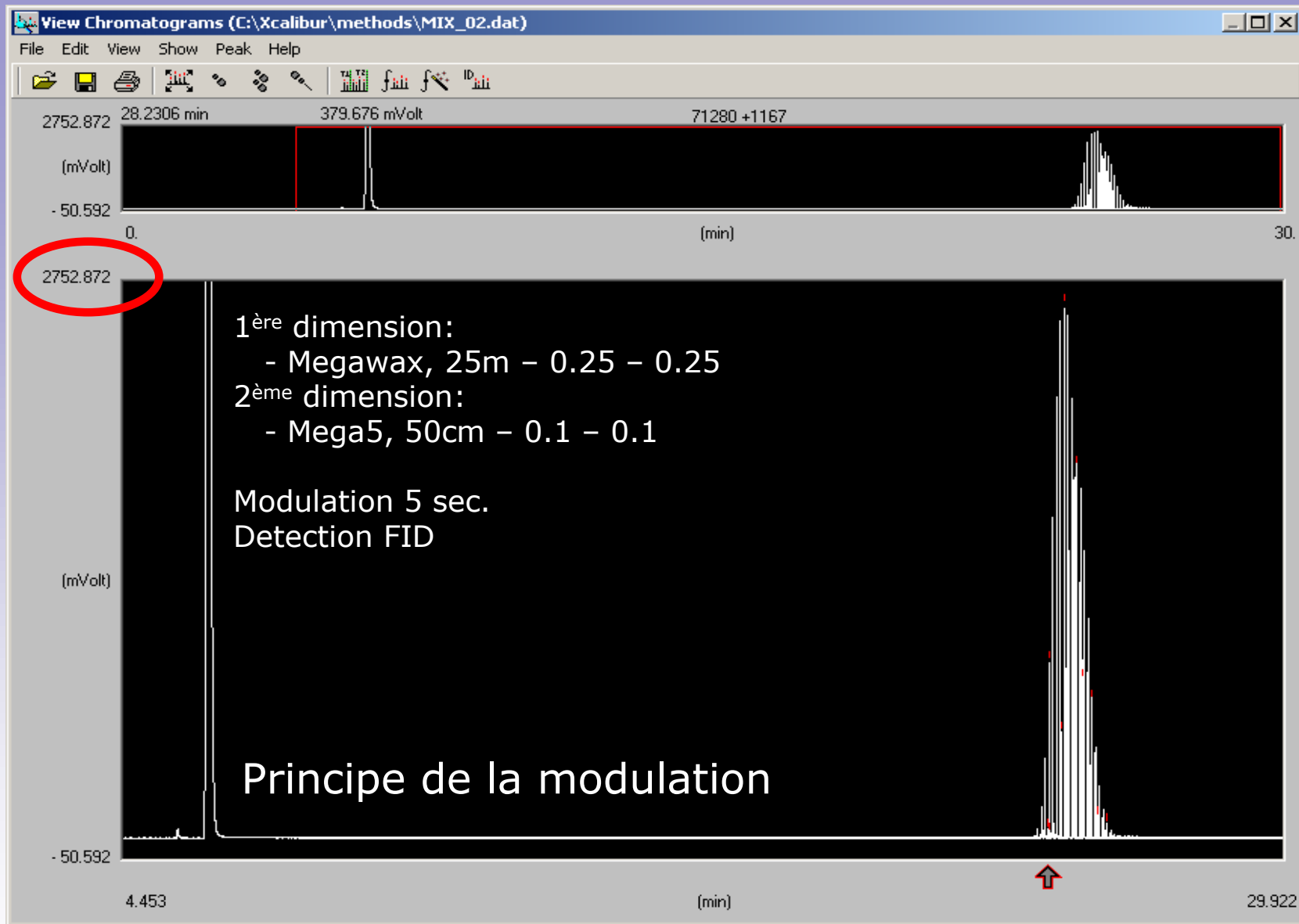


Système de trappe par CO₂

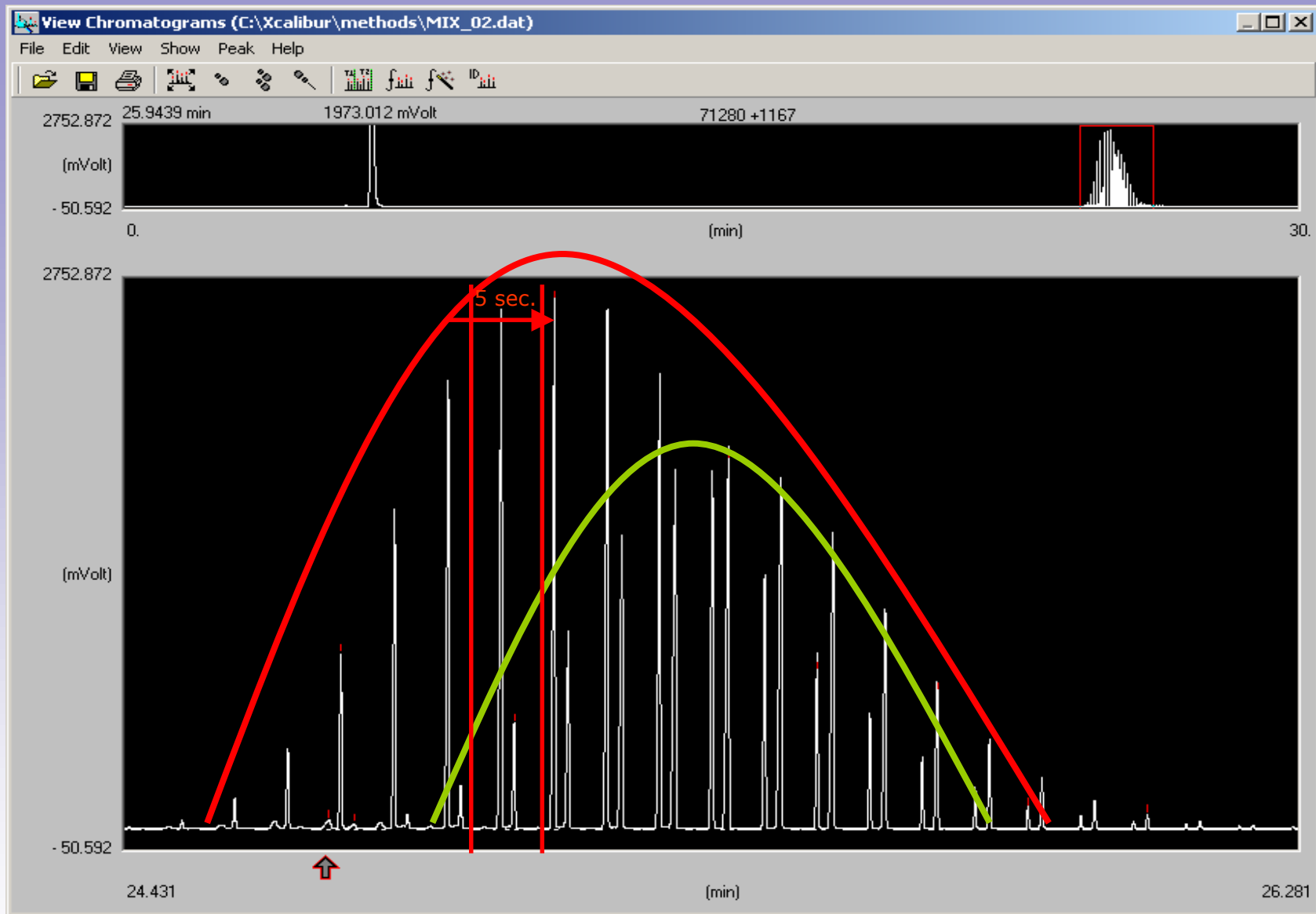
Tous les composés sont sujets
à deux mécanismes de séparation



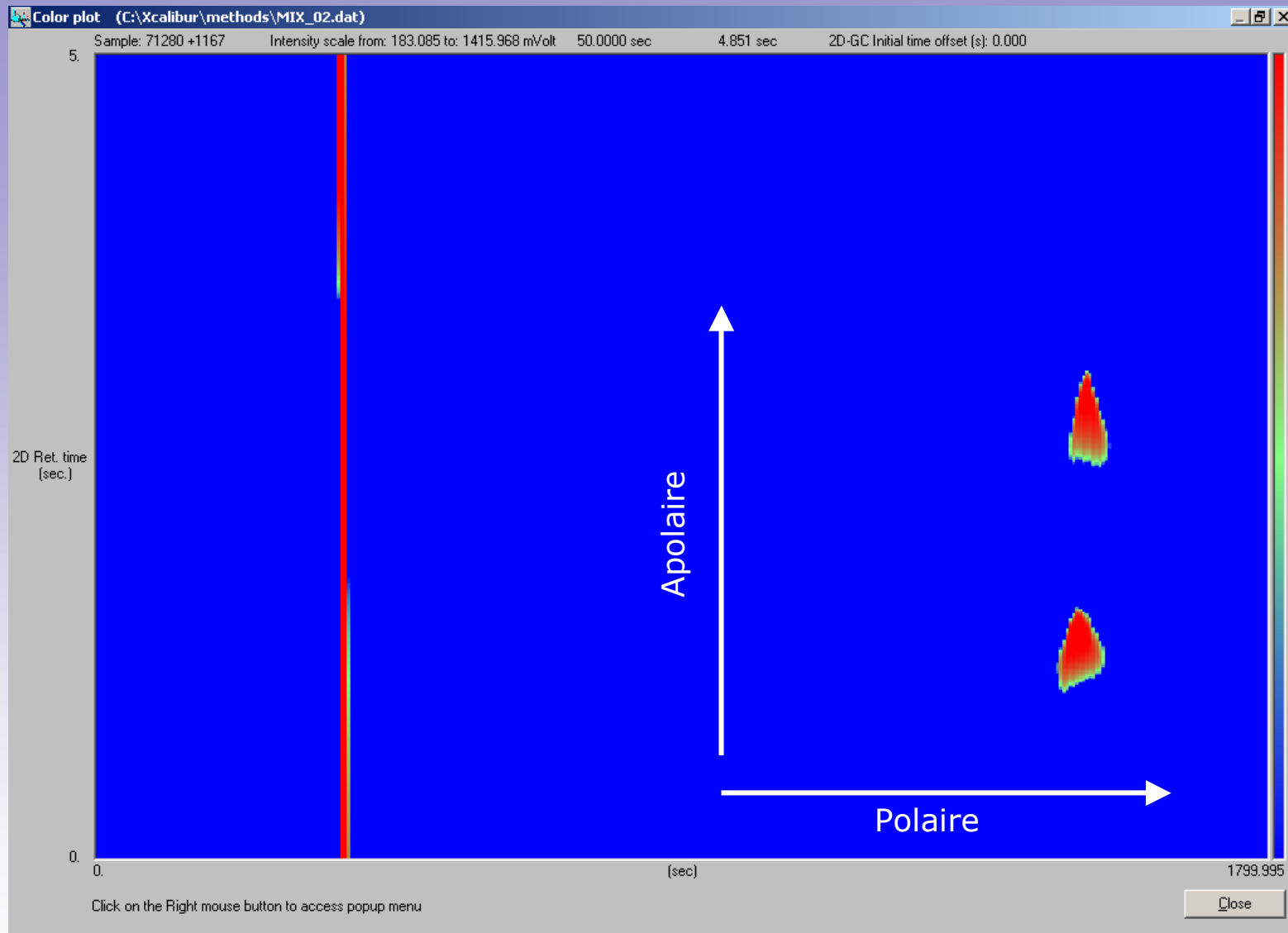
Principe de la modulation



Principe de la modulation



Principe de la modulation

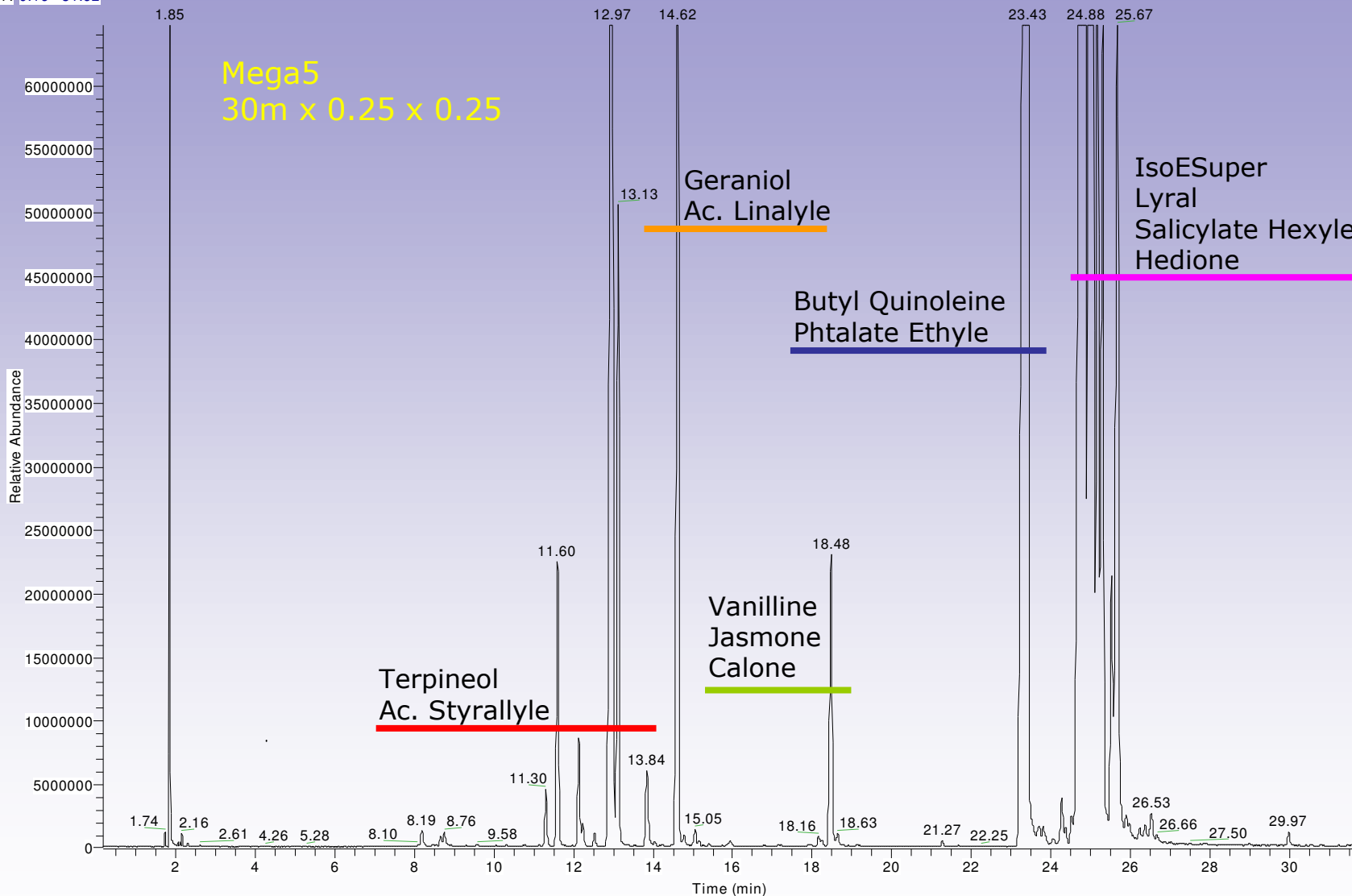


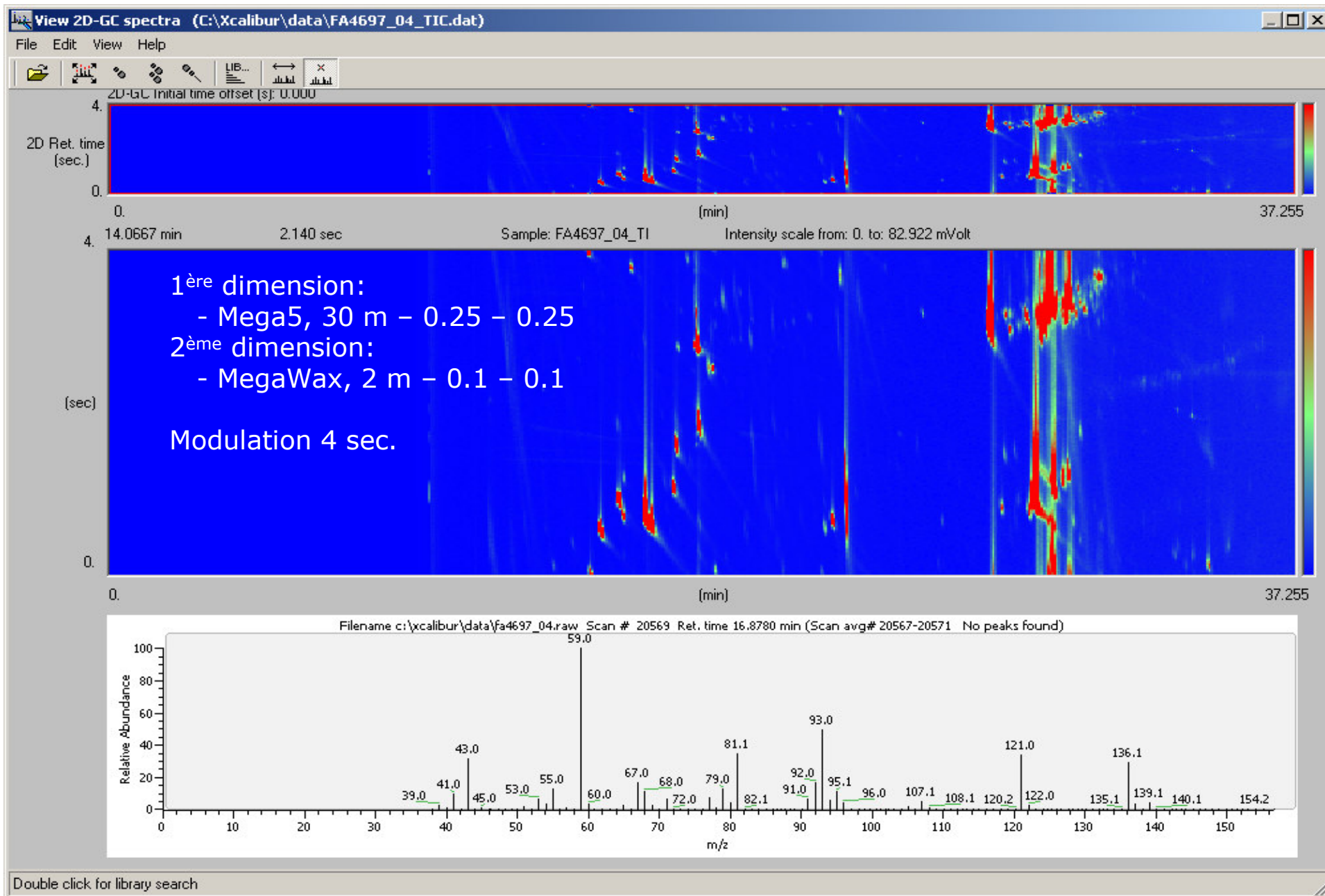
Principe de la modulation

Mélange synthétique

RT: 0.16 - 31.62

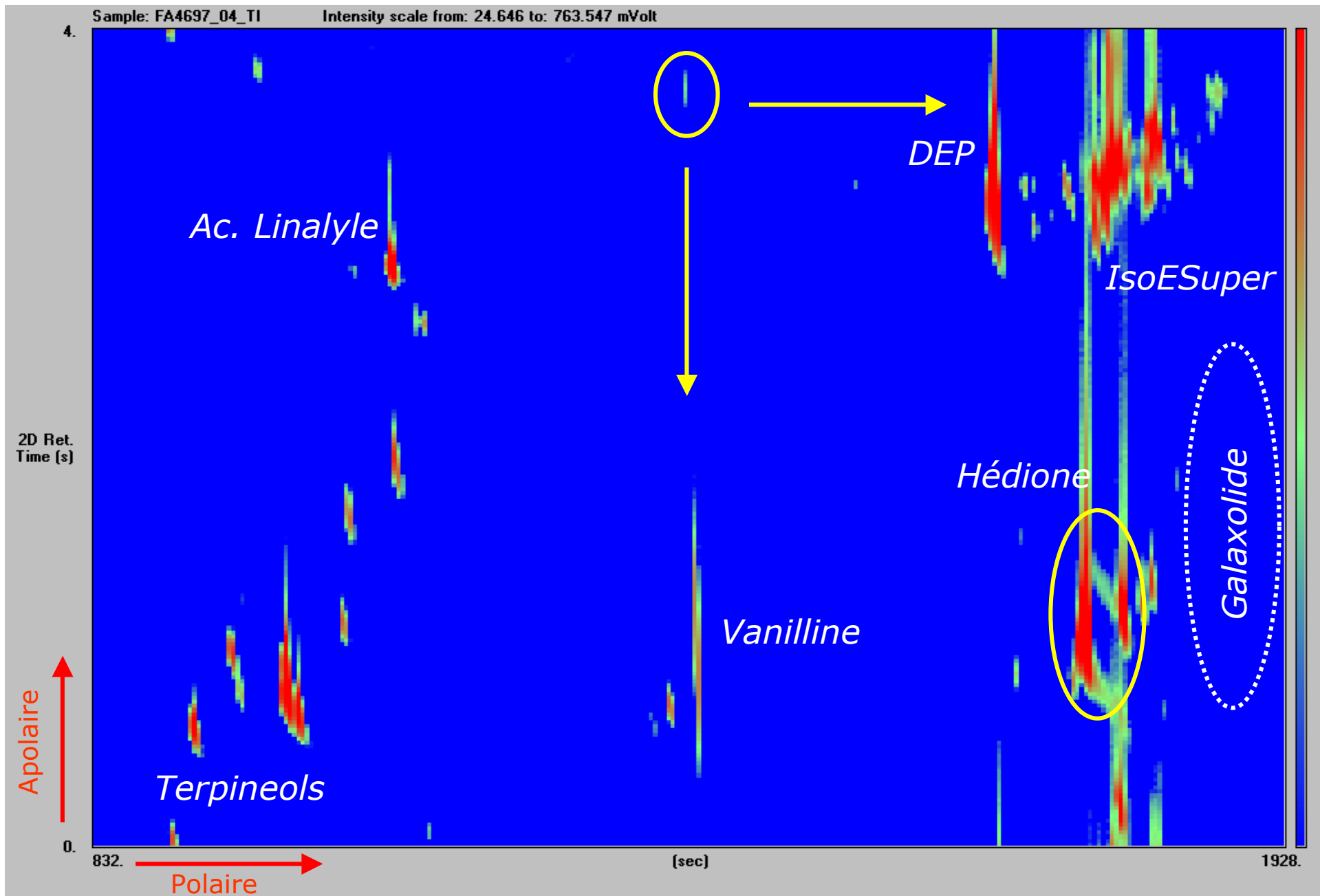
NL:
2.07E8
TIC F:
MS
FA4697_D
SQ_01



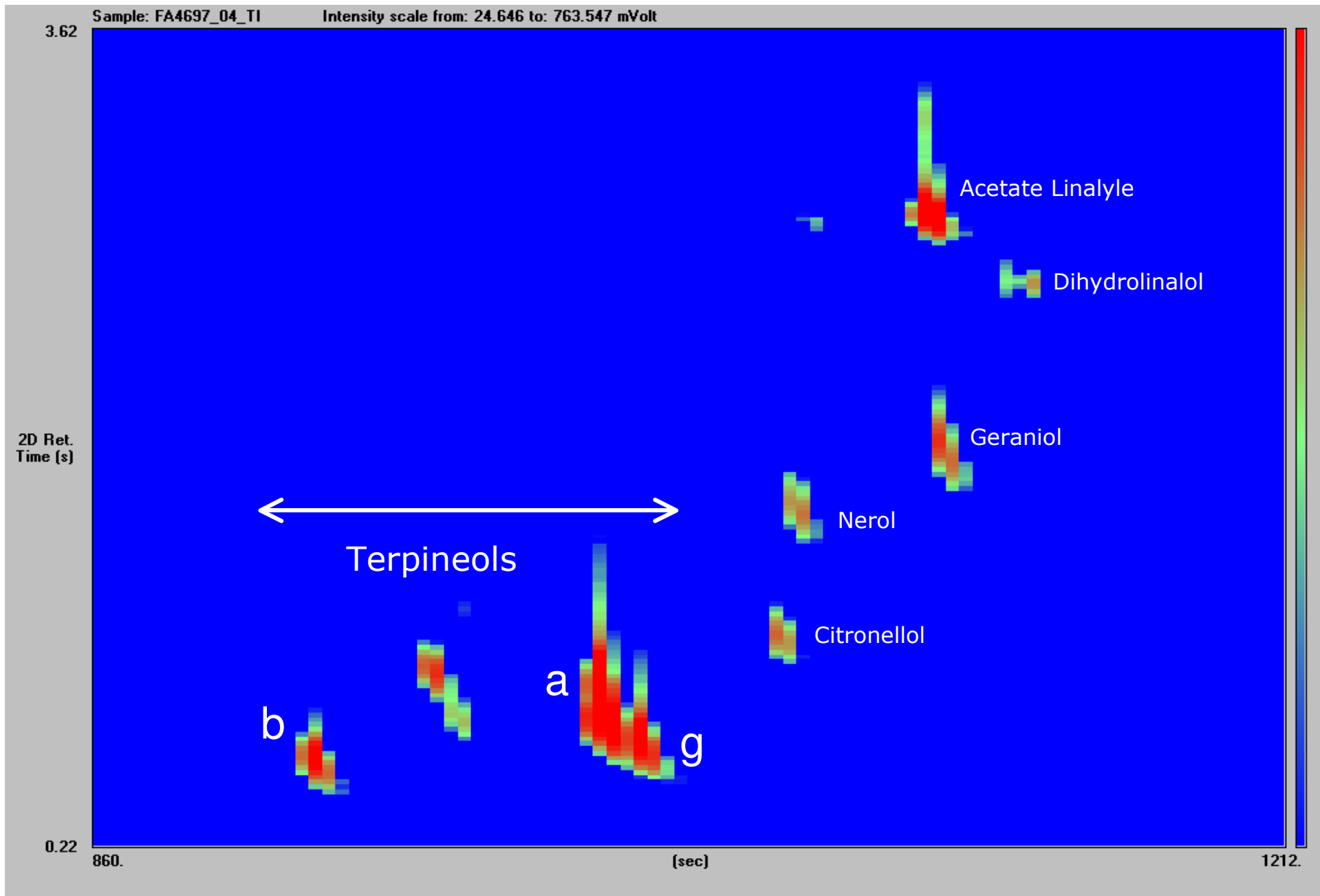


Mélange synthétique

argeville



Mélange synthétique

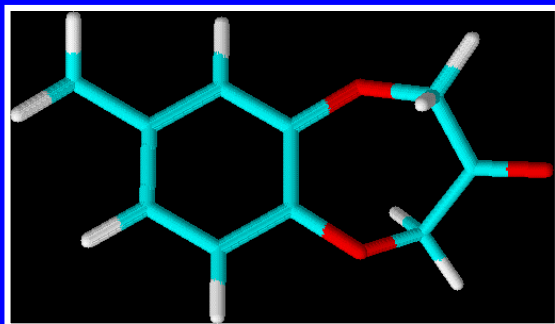


Mélange synthétique

Sample: FA4697_04_T1

Intensity scale from: 24.802 to: 135.395 mVolt

4.



Calone

7-methyl-2H-1,5-benzodioxepin-3(4H)-one

Note marine (~ 5/1000)

2D Ret.
Time (s)

0.06

1272.

[sec]

1464.

Jasmone

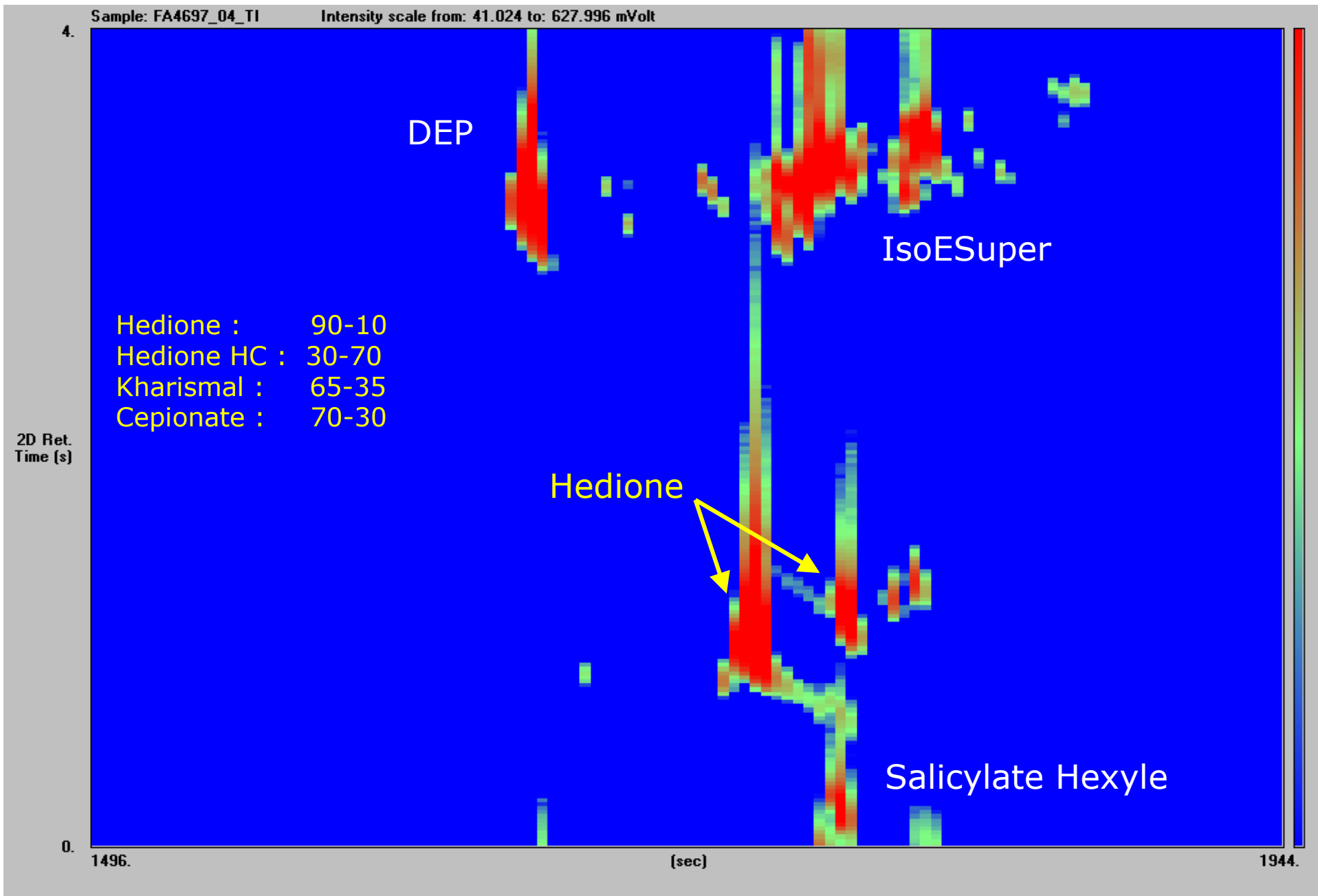
-(E)

-(Z)

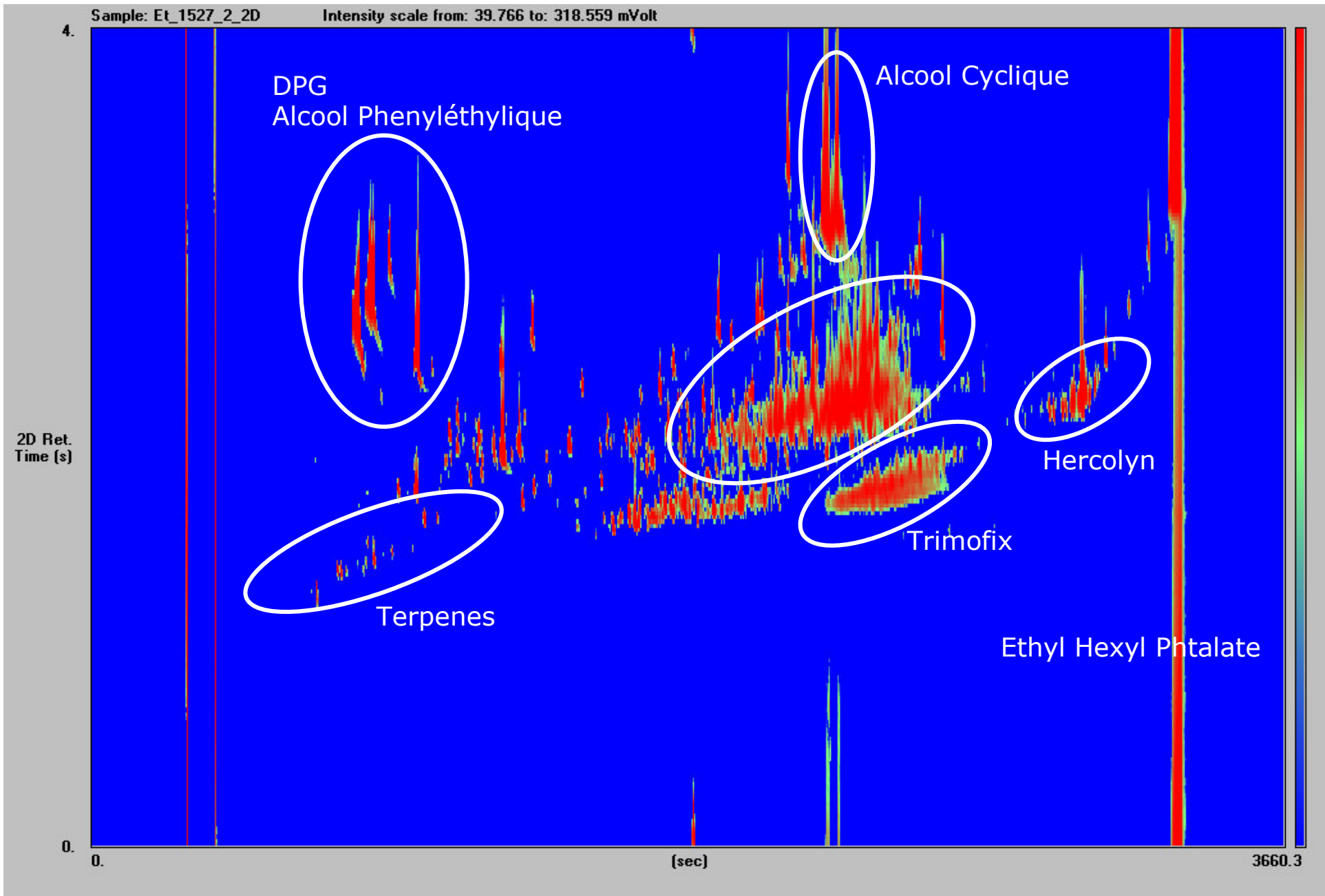
Vanilline

Mélange synthétique

argeville

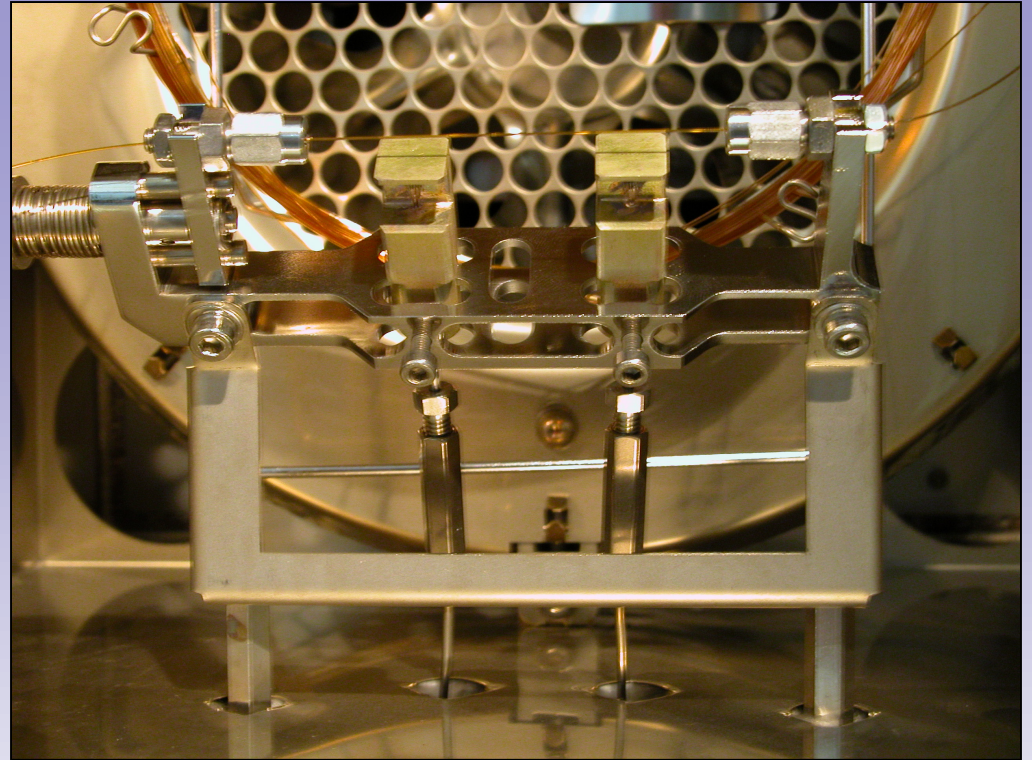
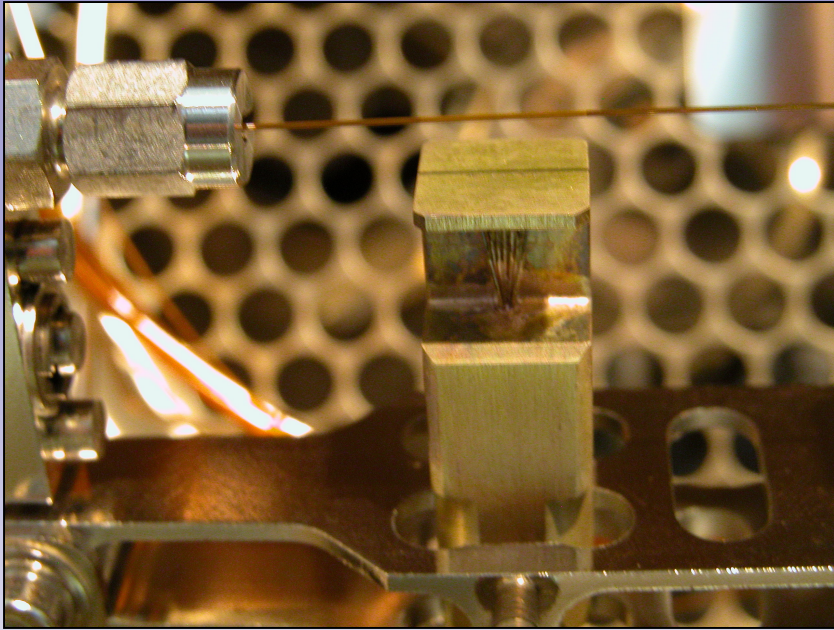


Mélange synthétique

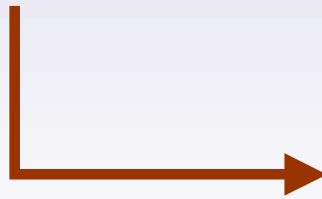


Parfum

argevill

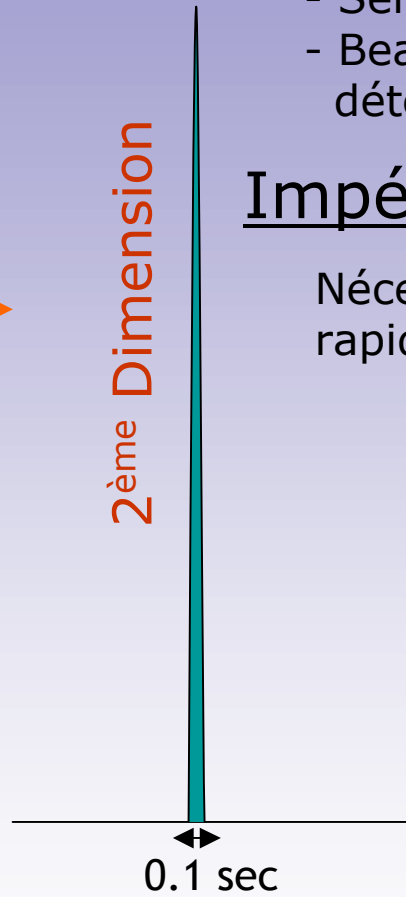
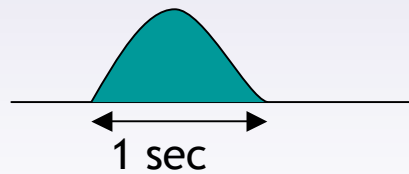


- Modulation CO_2
- Configuration des colonnes (diamètre, longueur)



- Compression des pics
- Chromatographie rapide

Intensité



Avantages:

- Sensibilité accrue
- Beaucoup plus de composés détectés

Impératifs:

Nécessite un système d'acquisition rapide



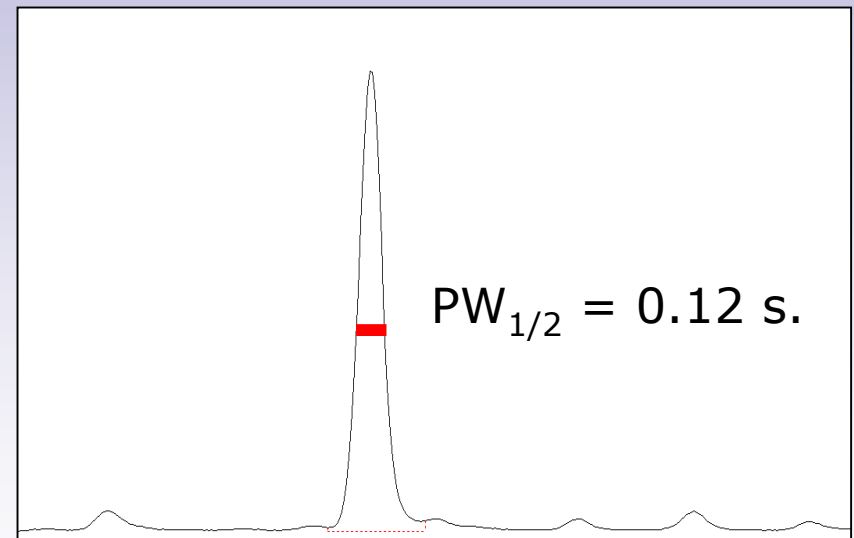
Vitesse d'acquisition 300 Hz

30 points pour un pic de 100 ms

Le détecteur FID

Mesure qualitative du signal:

- ~ 10 points / sec. pour un pic de 1 sec.
- ~ 80 points / sec. pour un pic de 150 ms.



$$\text{Duty Cycle} = \frac{\text{Fill time}}{\text{Listen time}}$$

Listen Times :

- uma 4, ~ 1 μs
- uma 300, ~ 15 μs
- uma 500, ~ 20 μs
- uma 1000, ~ 30 μs

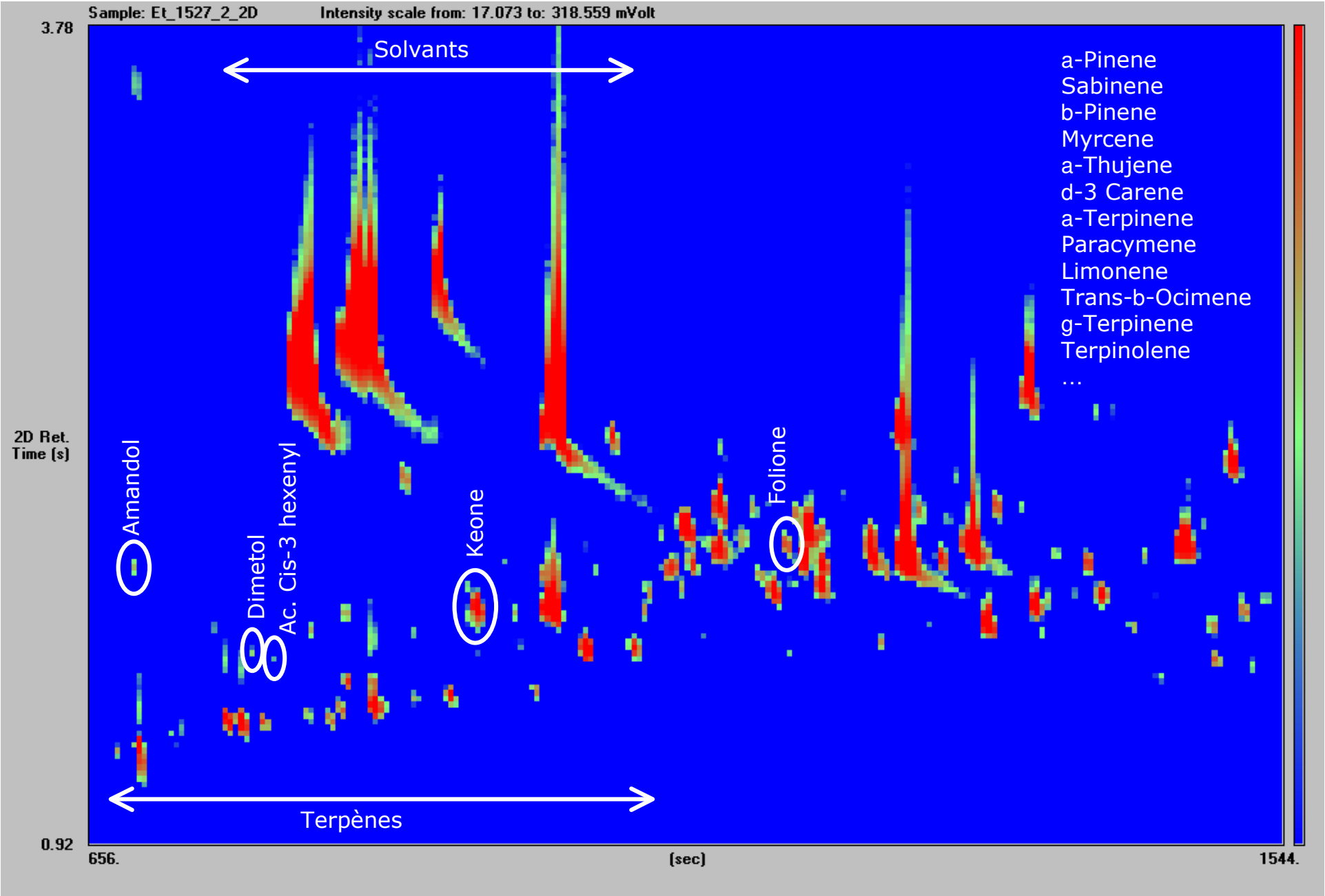
Fréquence d'acquisition : 32 KHz

- @ 10 spectres / sec. : 3.200 mesures
- @ 50 spectres / sec. : 640 mesures
- @ 100 spectres / sec. : 320 mesures

50 spectres/sec. min.
Gamme de masse étendue

MS - Temps de Vol

argeville



3.78

Sample: Et_1527_2_2D

Intensity scale from: 17.073 to: 318.559 mVolt

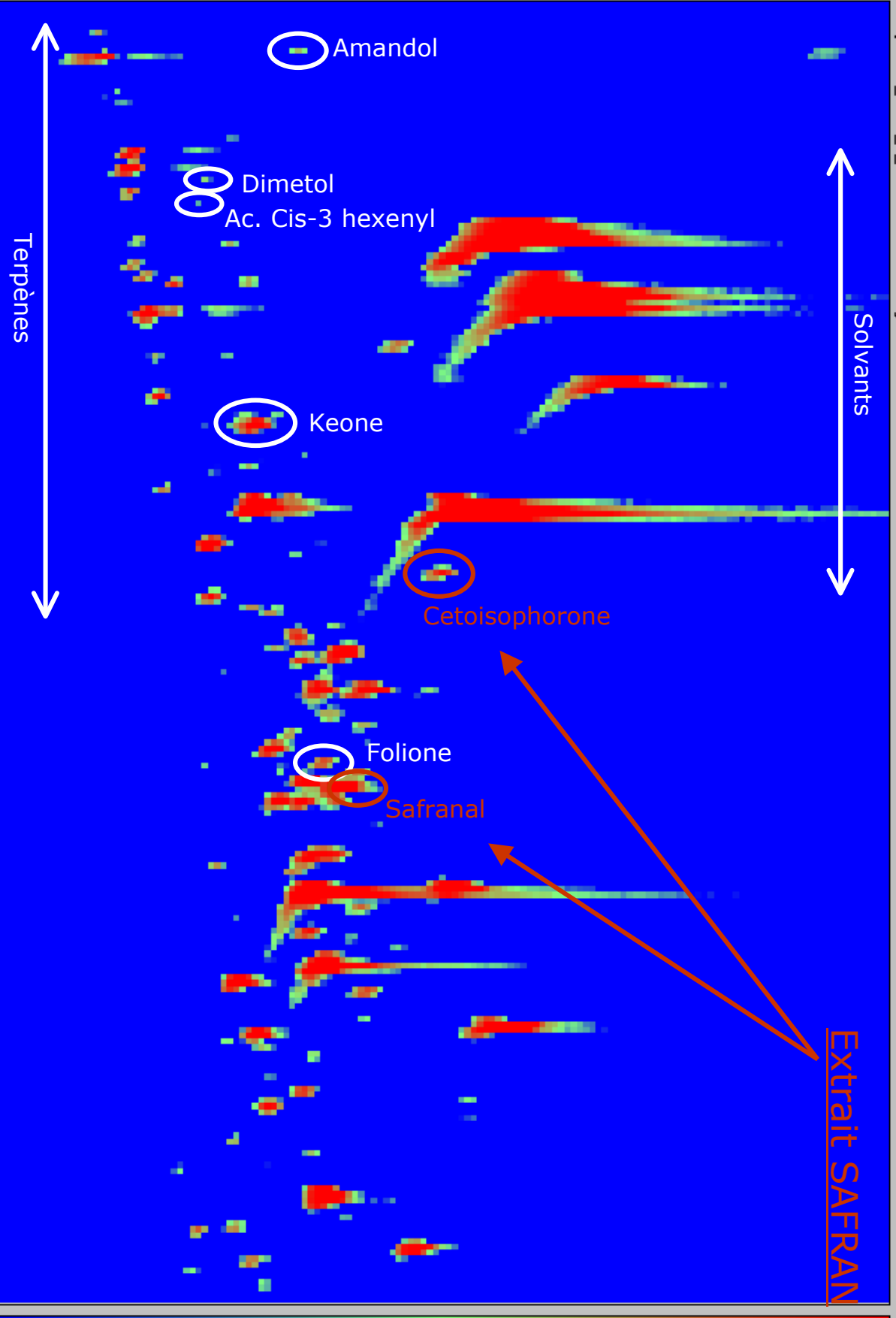
2D Ret.
Time (s)

0.92

656.

[sec]

1544.

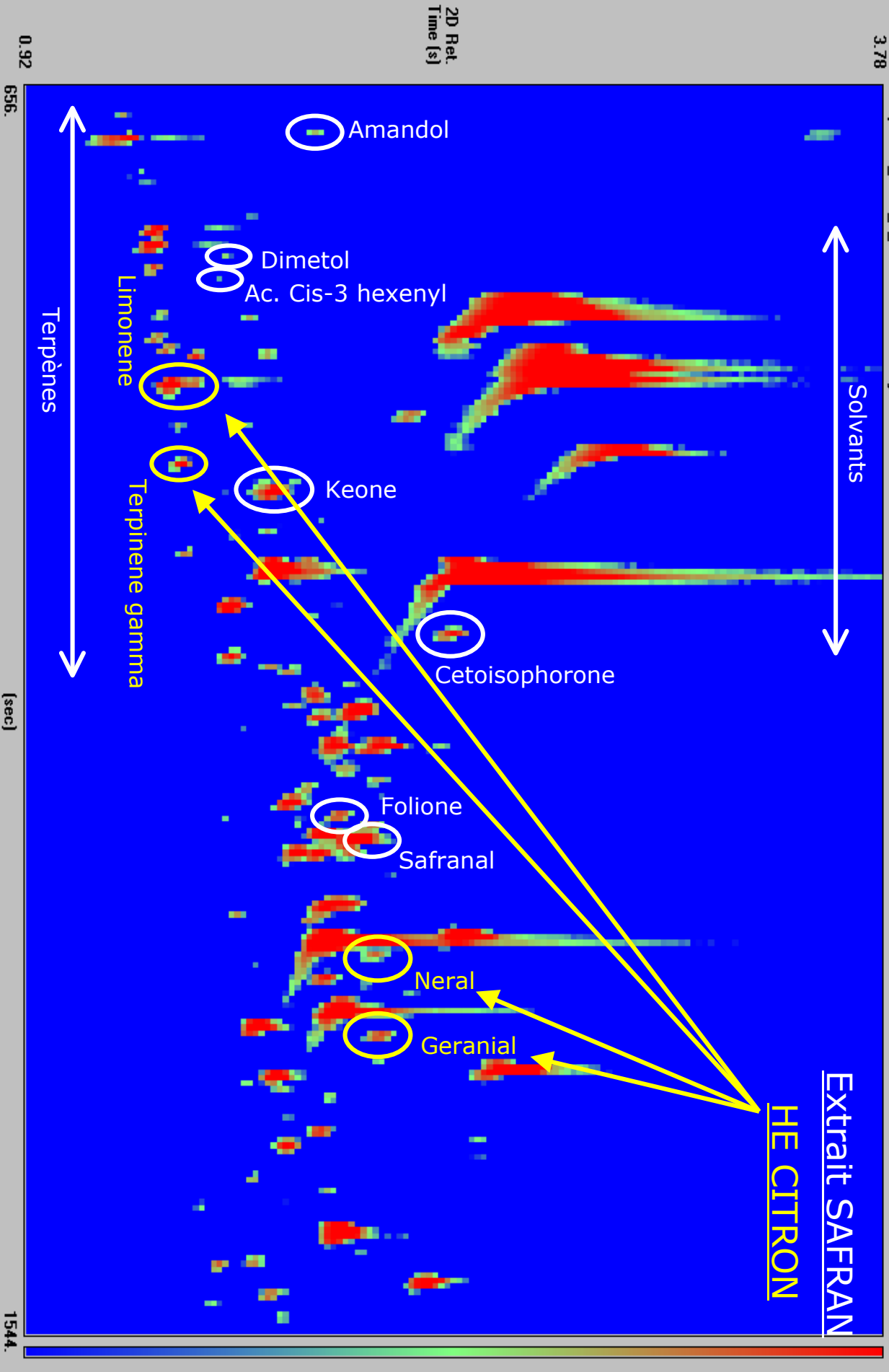


Extrait SAFRAN

3.78

Sample: Et_1527_2_2D

Intensity scale from: 17.073 to: 318.559 mVolt



Solvants

Terpènes

Extrait SAFRAN

HE CITRON

Amandol

Dimetol
Ac. Cis-3 hexenyl

Limonene

Terpinene gamma

Keone

Cetoisophorone

Folione

Safranal

Neral

Geranial

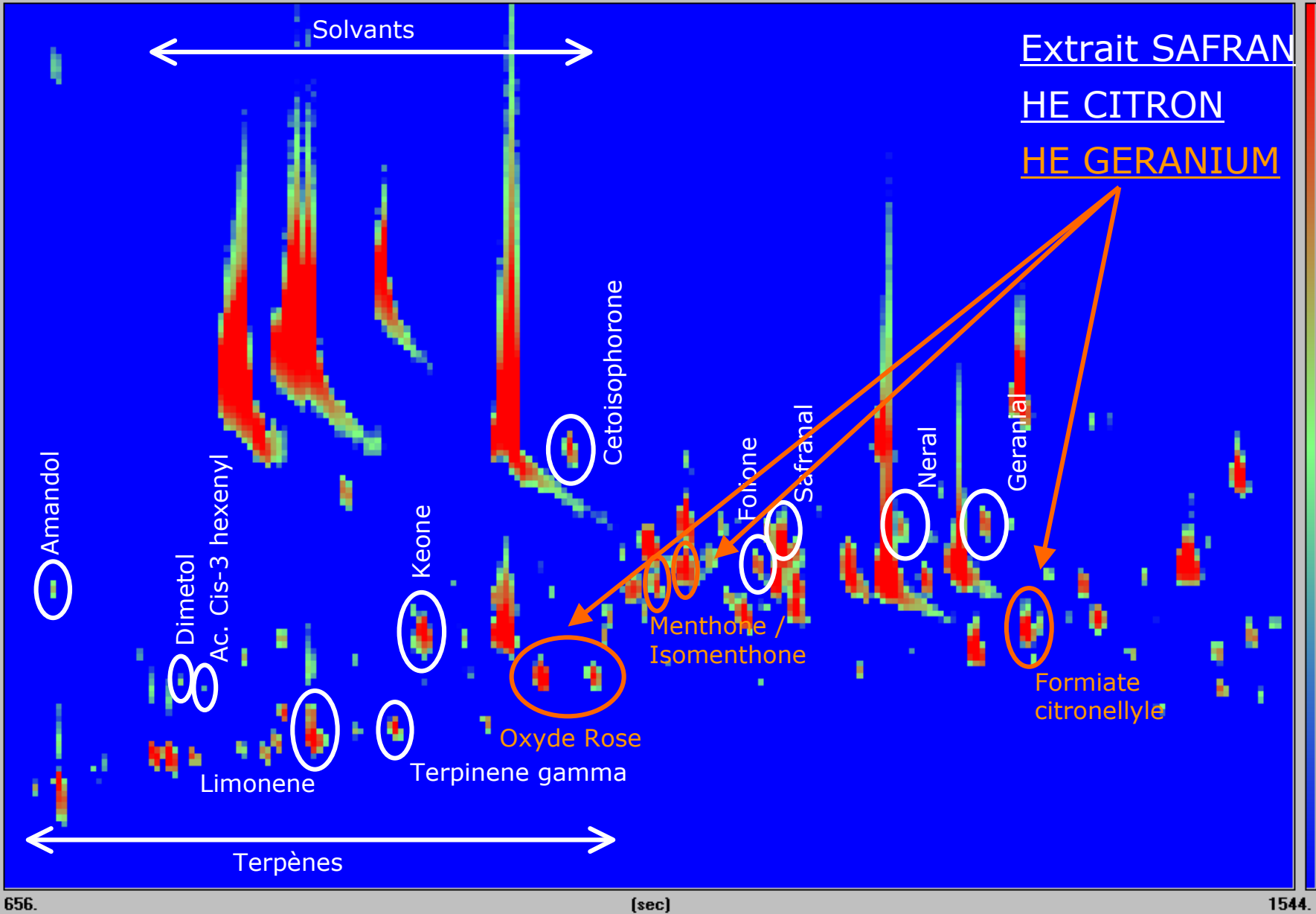
0.92

656.

[sec]

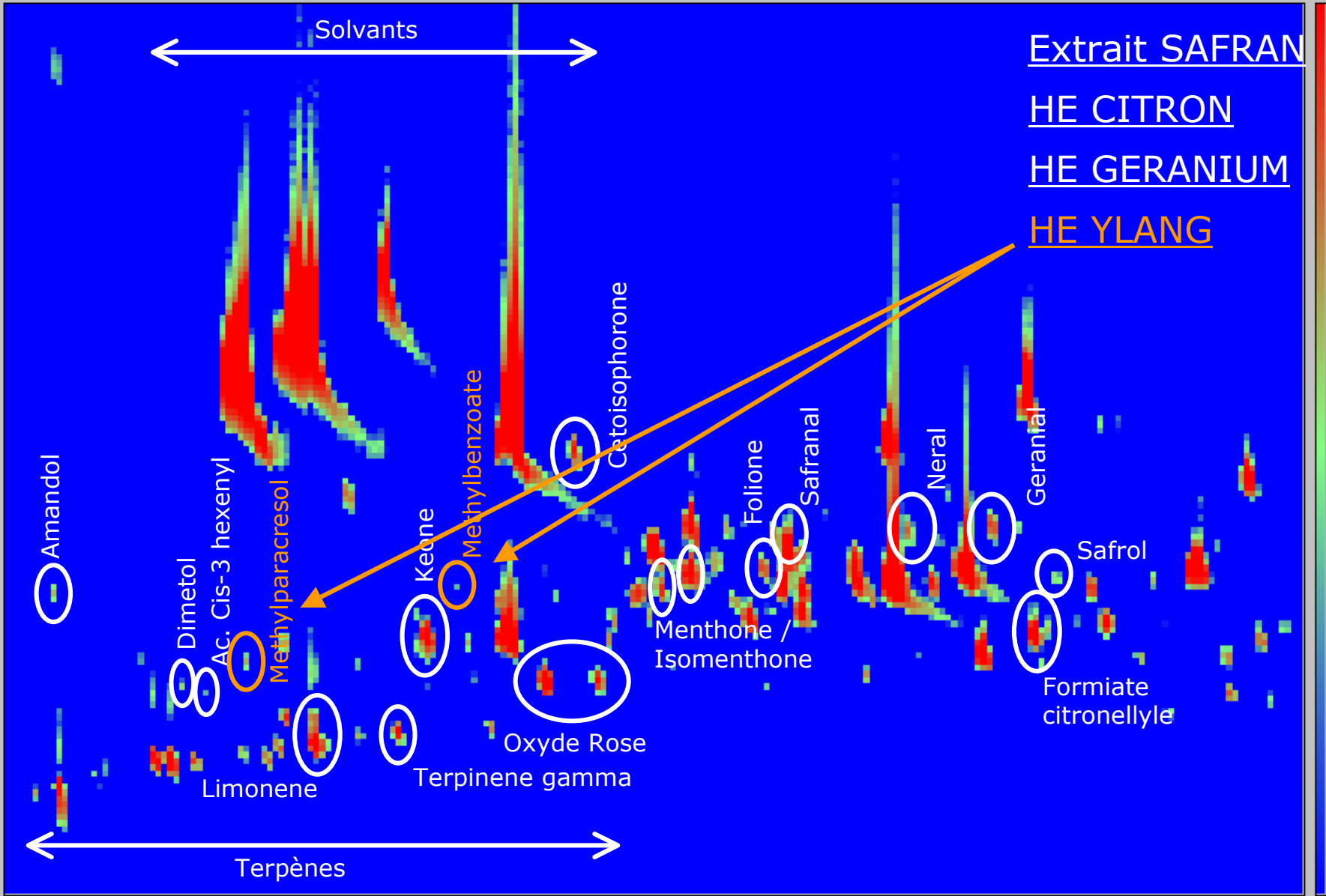
1544.

2D Ret.
Time (s)



3.78

2D Ret. Time (s)

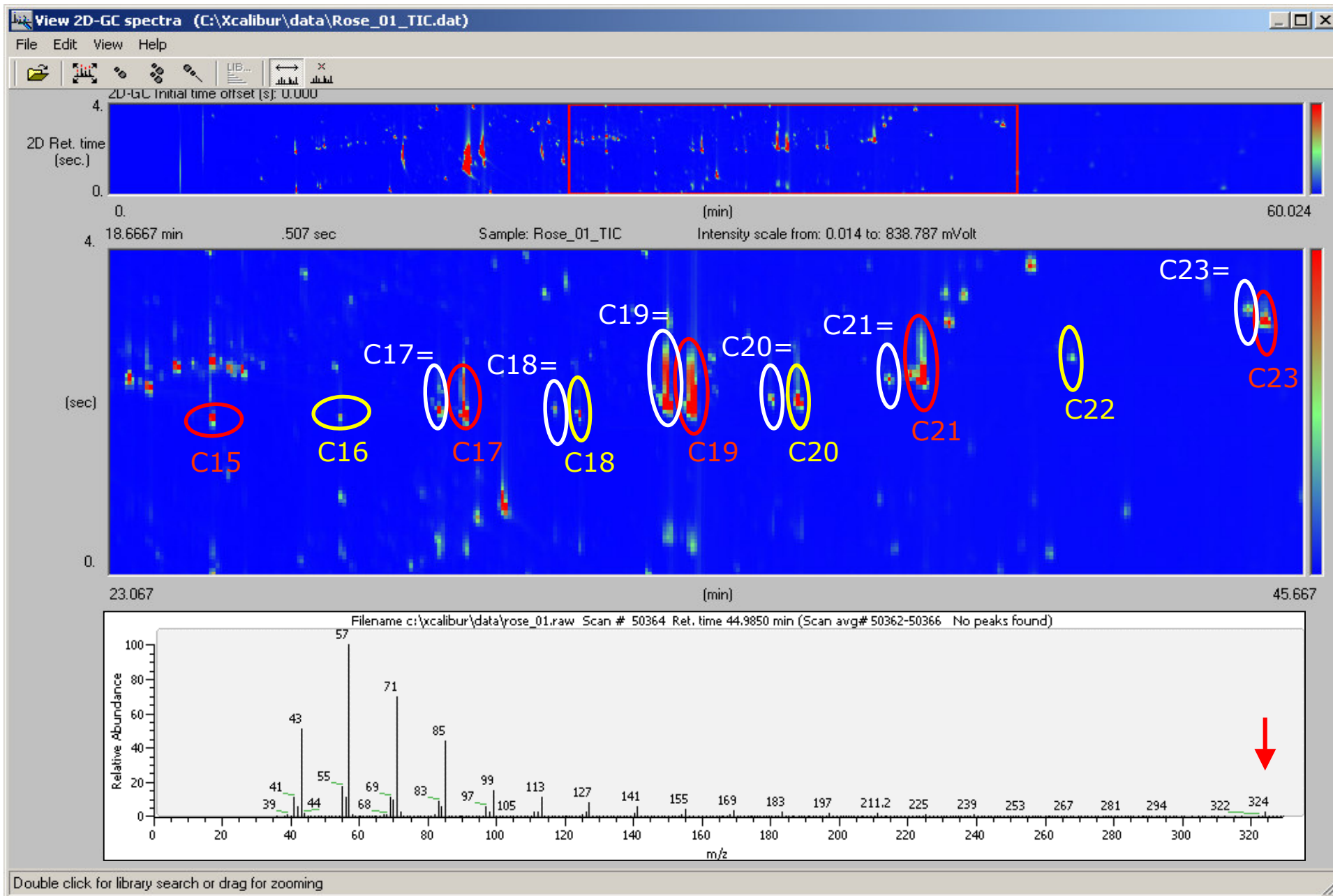


0.92

656.

[sec]

1544.



Essence de Rose



