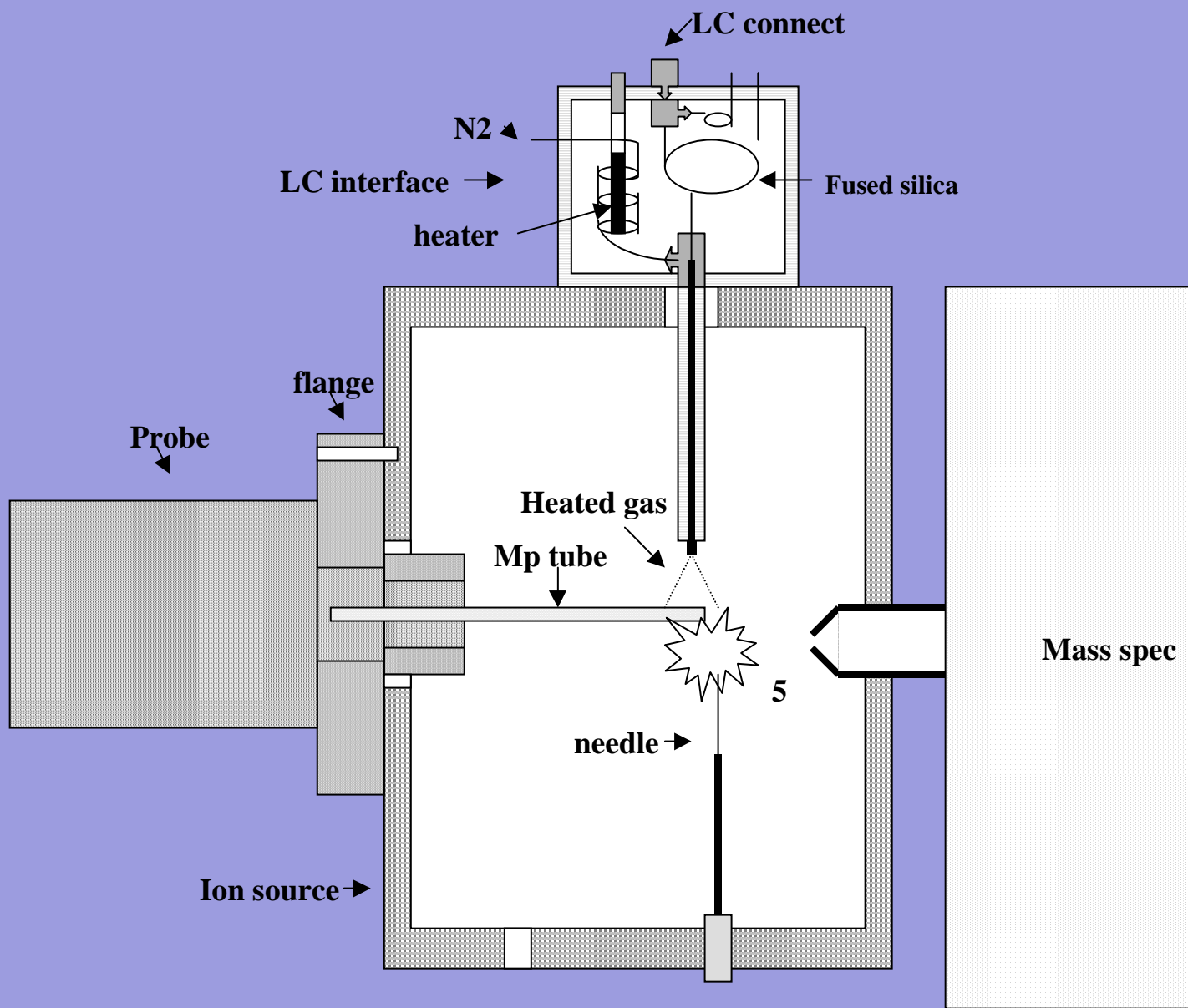


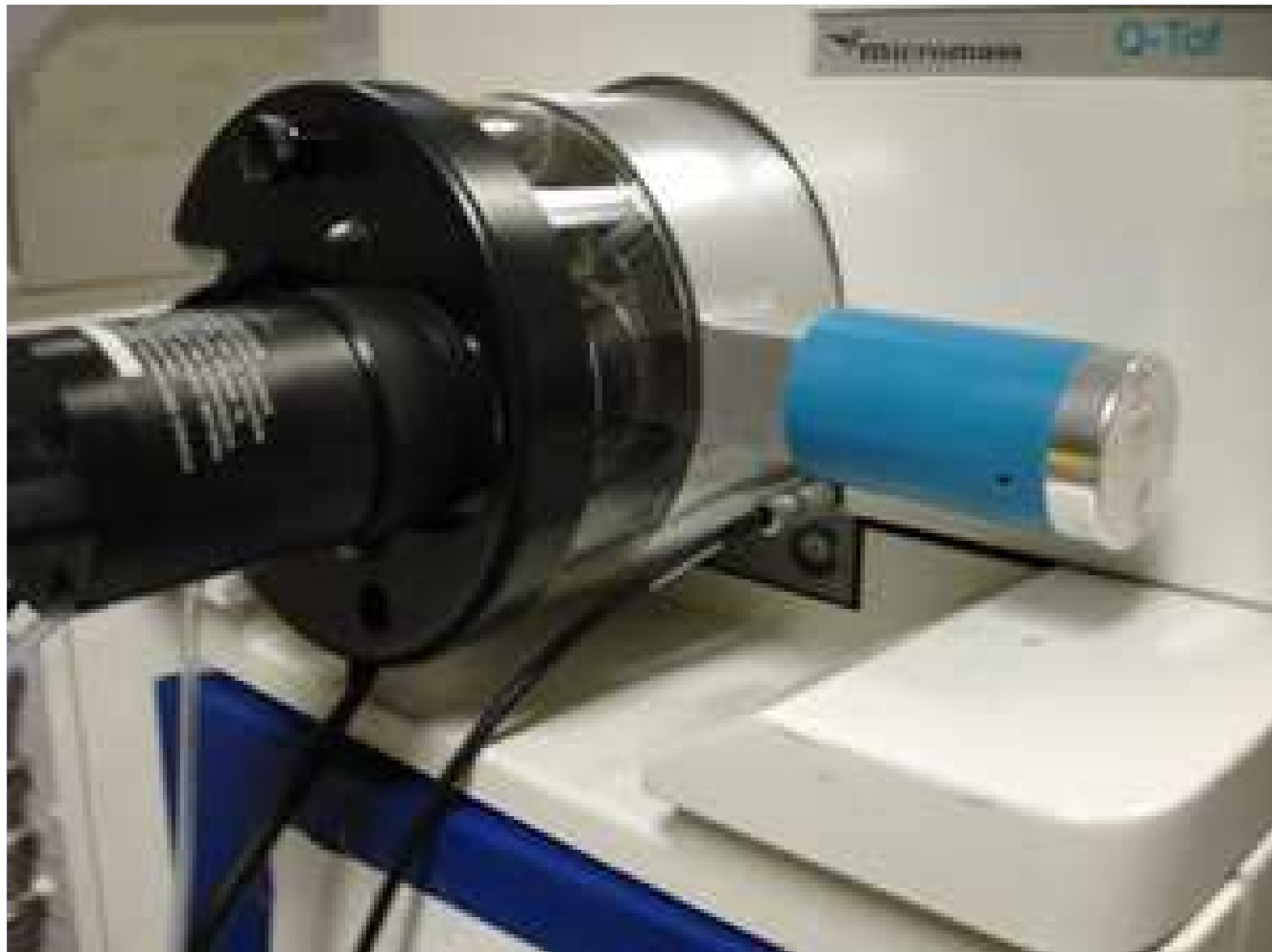
A photograph of a sunset over a beach. The sun is low on the horizon, casting a warm orange glow across the sky and reflecting on the water. The sky is filled with soft, wispy clouds. In the foreground, two people are sitting on the sand, their silhouettes dark against the bright light of the sunset. The ocean waves are gently lapping at the shore.

# Atmospheric Solids Analysis Probe

Charles McEwen

# Commercial ASAP Probe





# **ASAP** Examples

- **Solids probe replacement**
- **Accurate mass of mixtures**
- **Analysis of polymer additives**
- **Analysis of drugs (or explosives)**
- **Analysis of biological tissue**

# 9,11-Dihydrotestosterone

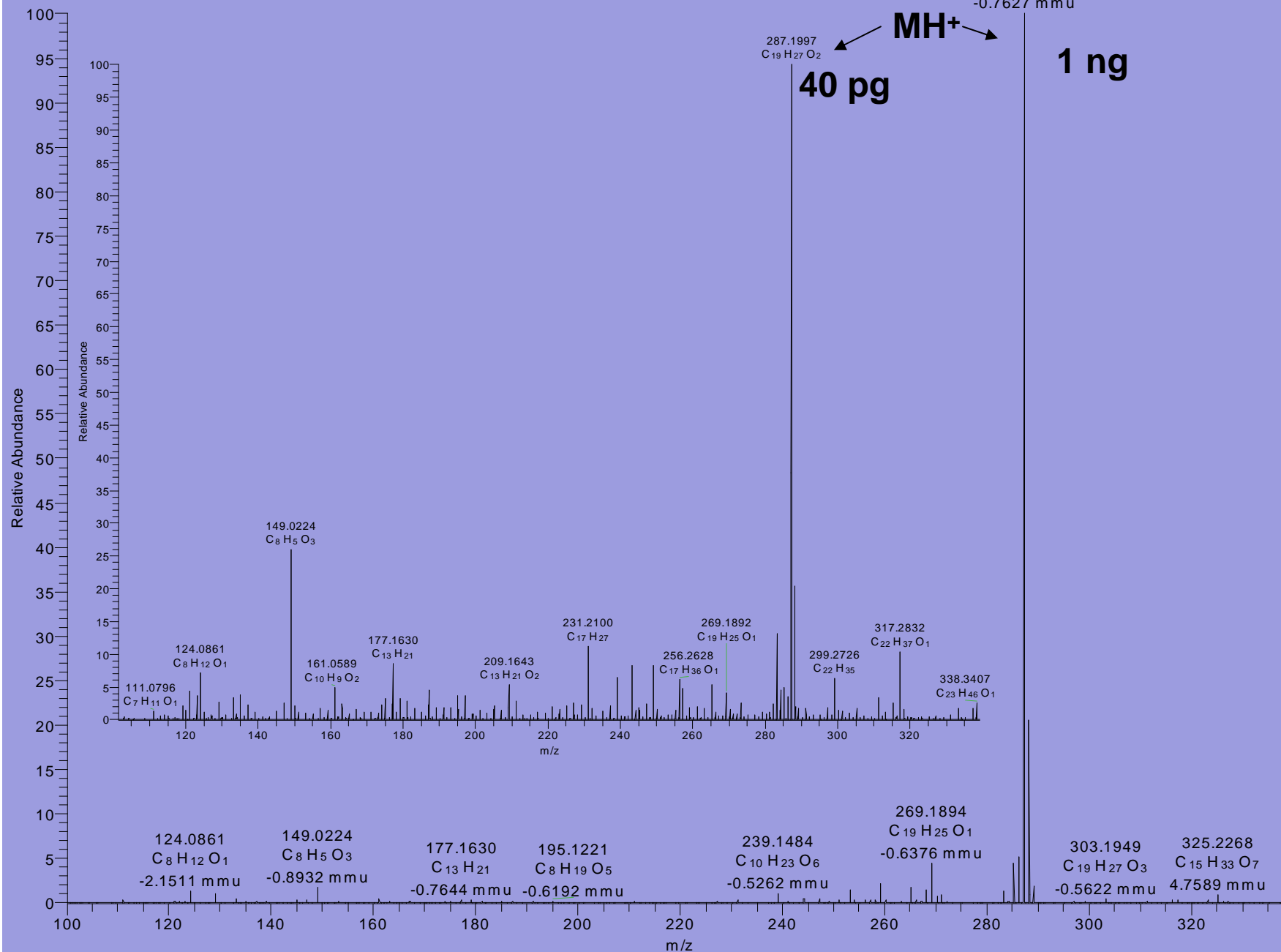
287.1998  
C<sub>19</sub>H<sub>27</sub>O<sub>2</sub>  
-0.7627 mmu

MH<sup>+</sup>

287.1997  
C<sub>19</sub>H<sub>27</sub>O<sub>2</sub>

40 pg

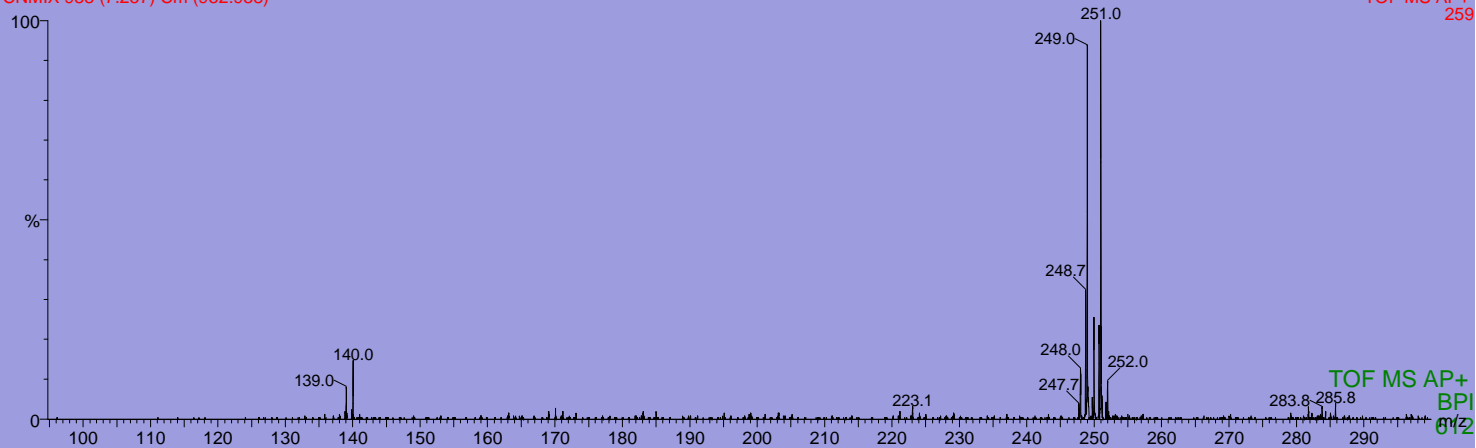
1 ng



EPA 8270  
5 cc/min Helium  
10 C/min

CNMix 5 cc 18 c/min  
CNMIX 933 (7.257) Cm (932:938)

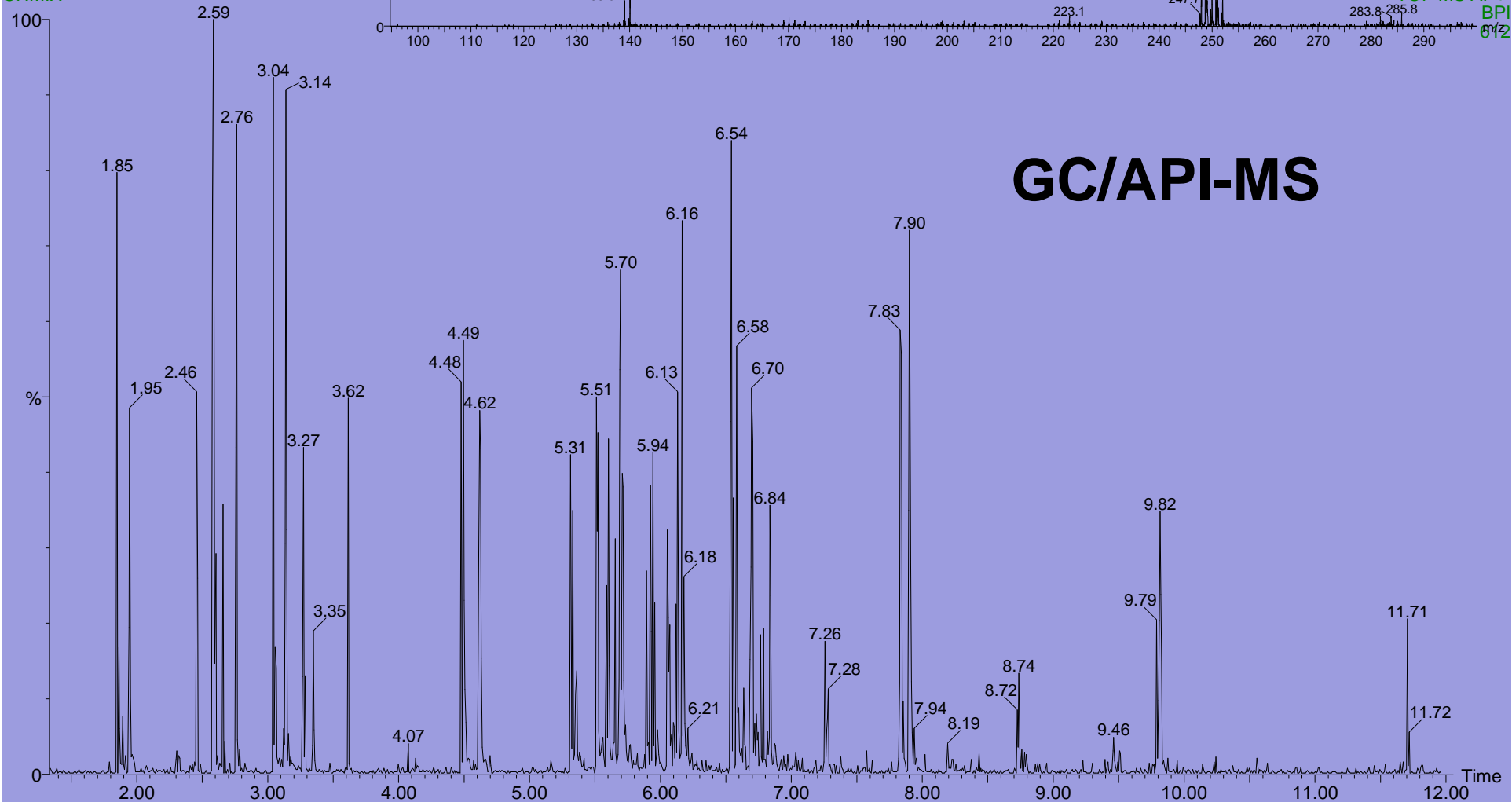
TOF MS AP+  
259



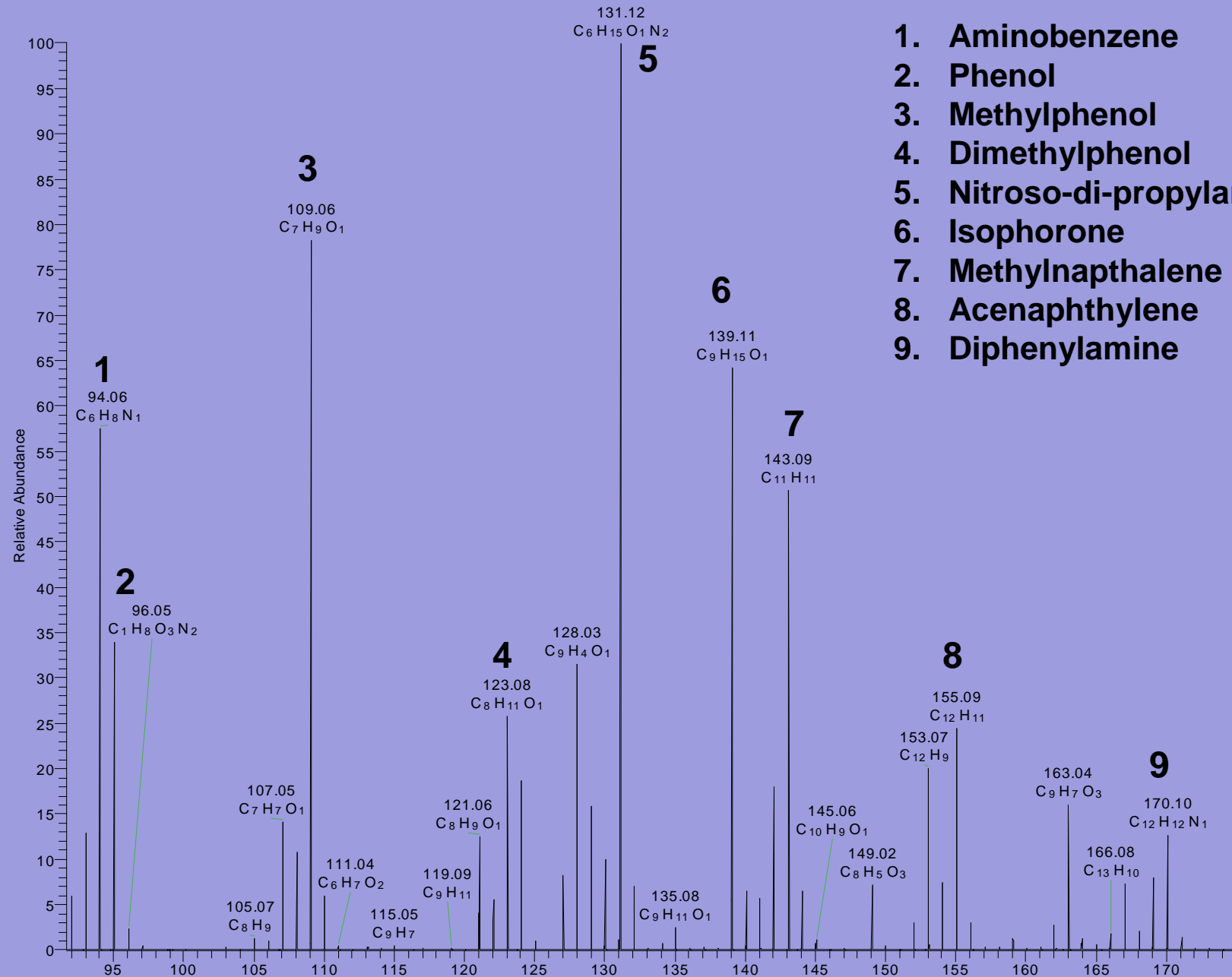
CNMix 5 cc 18 c/min  
CNMIX

TOF MS AP+  
BPI  
012

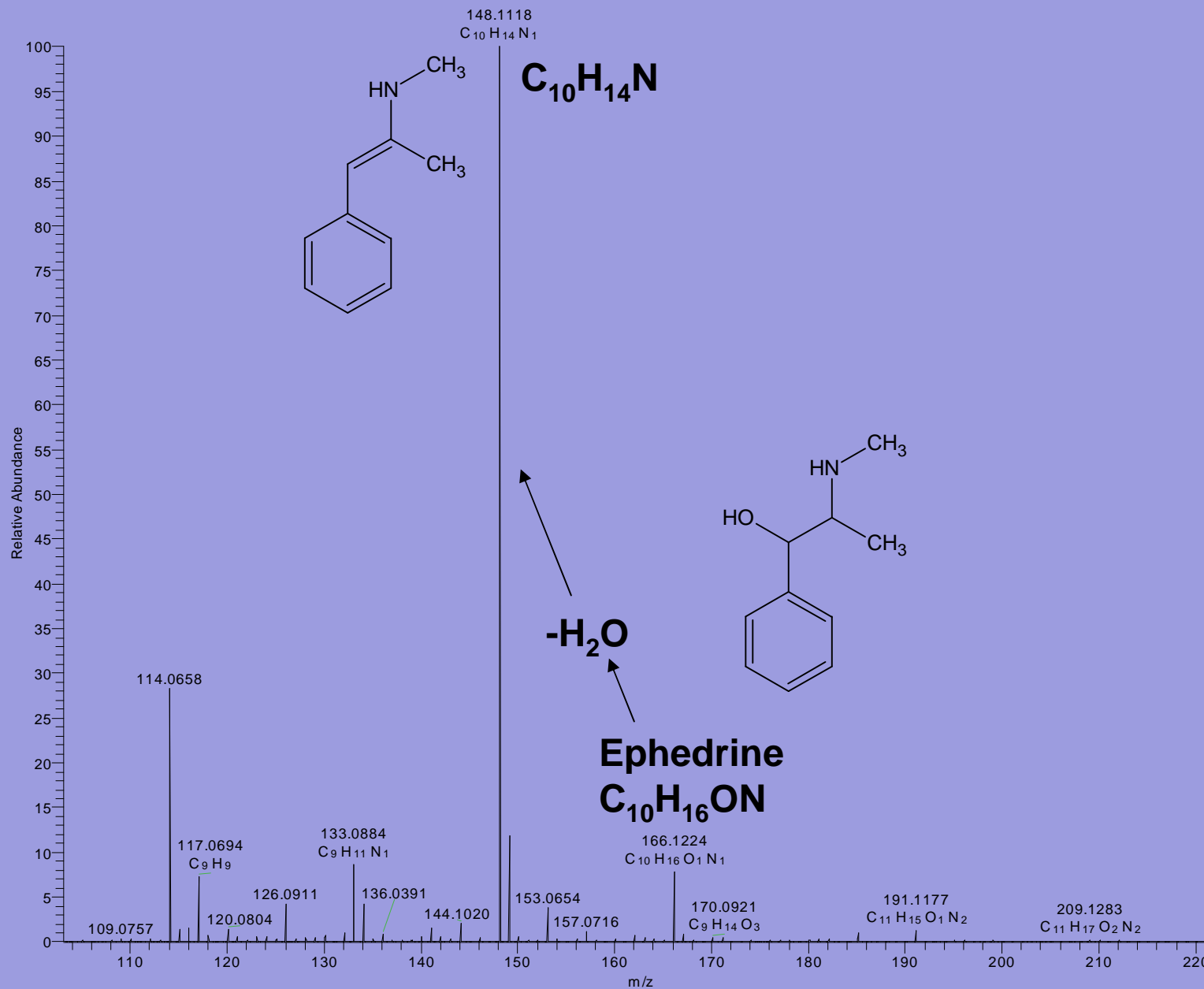
# GC/API-MS



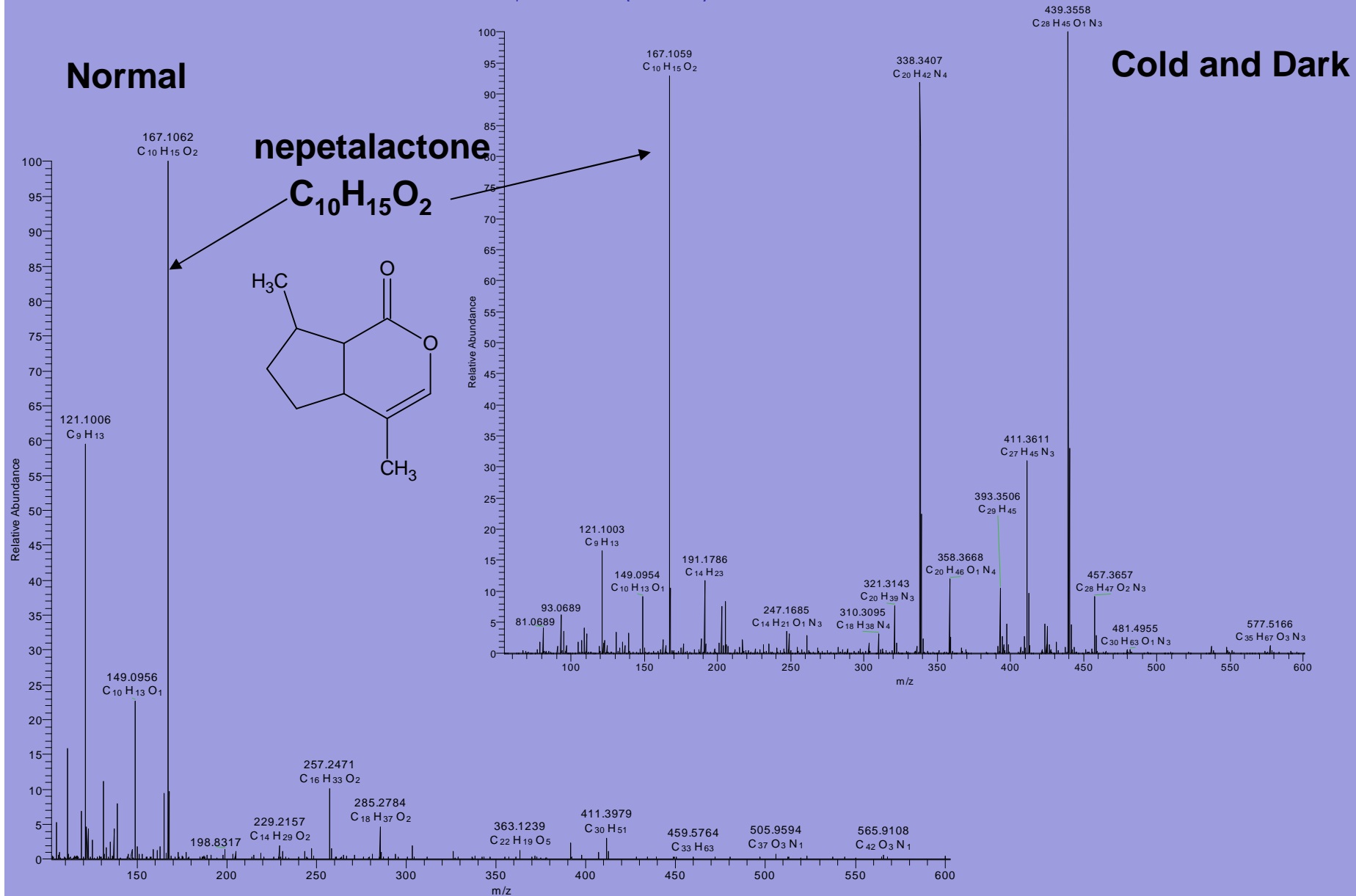
# ASAP of Restek EPA 8270 Megamix



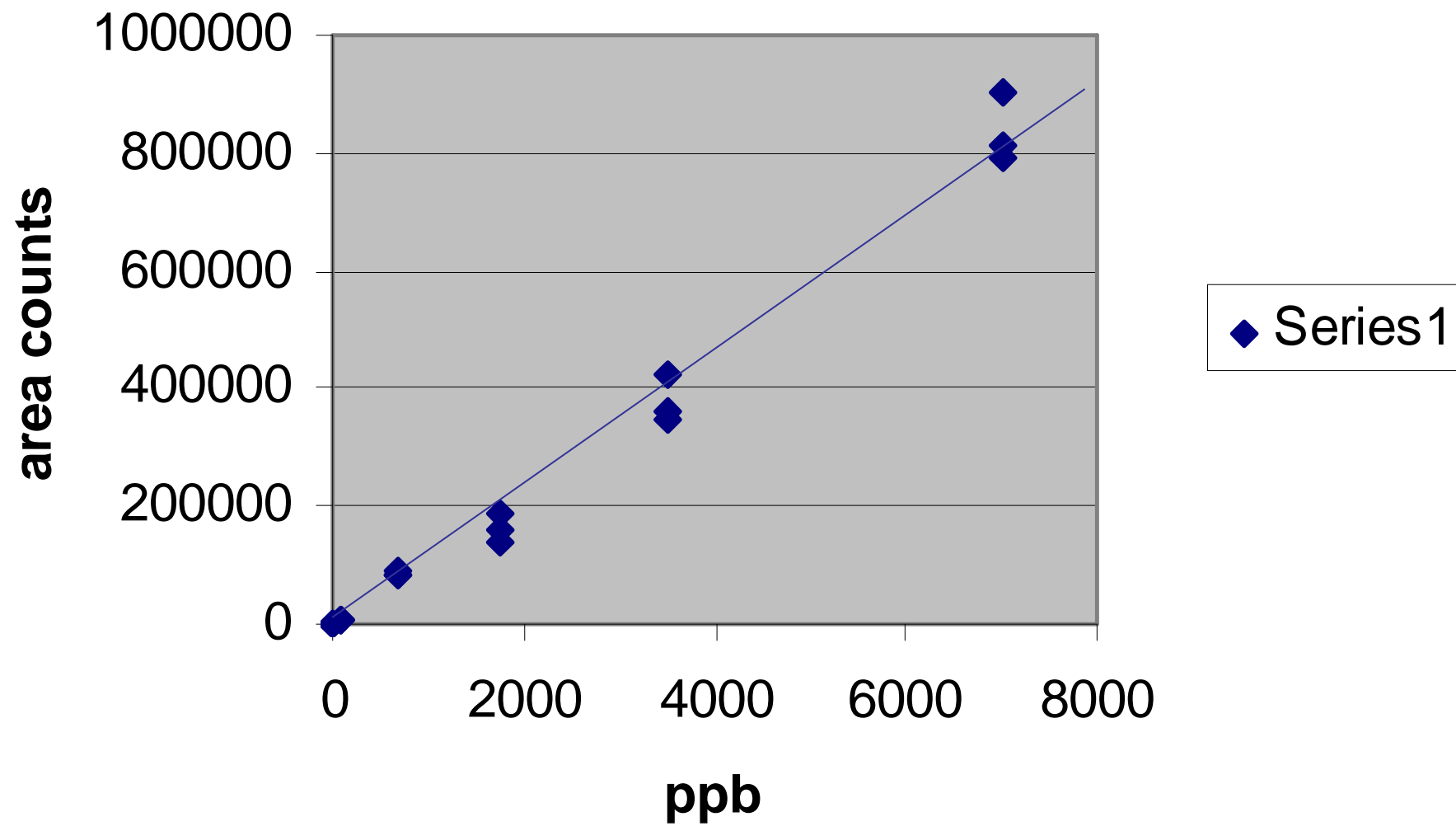
# Direct ASAP Analysis of Urine Sample 9 hrs After 12 hr Sedafed<sup>®</sup>



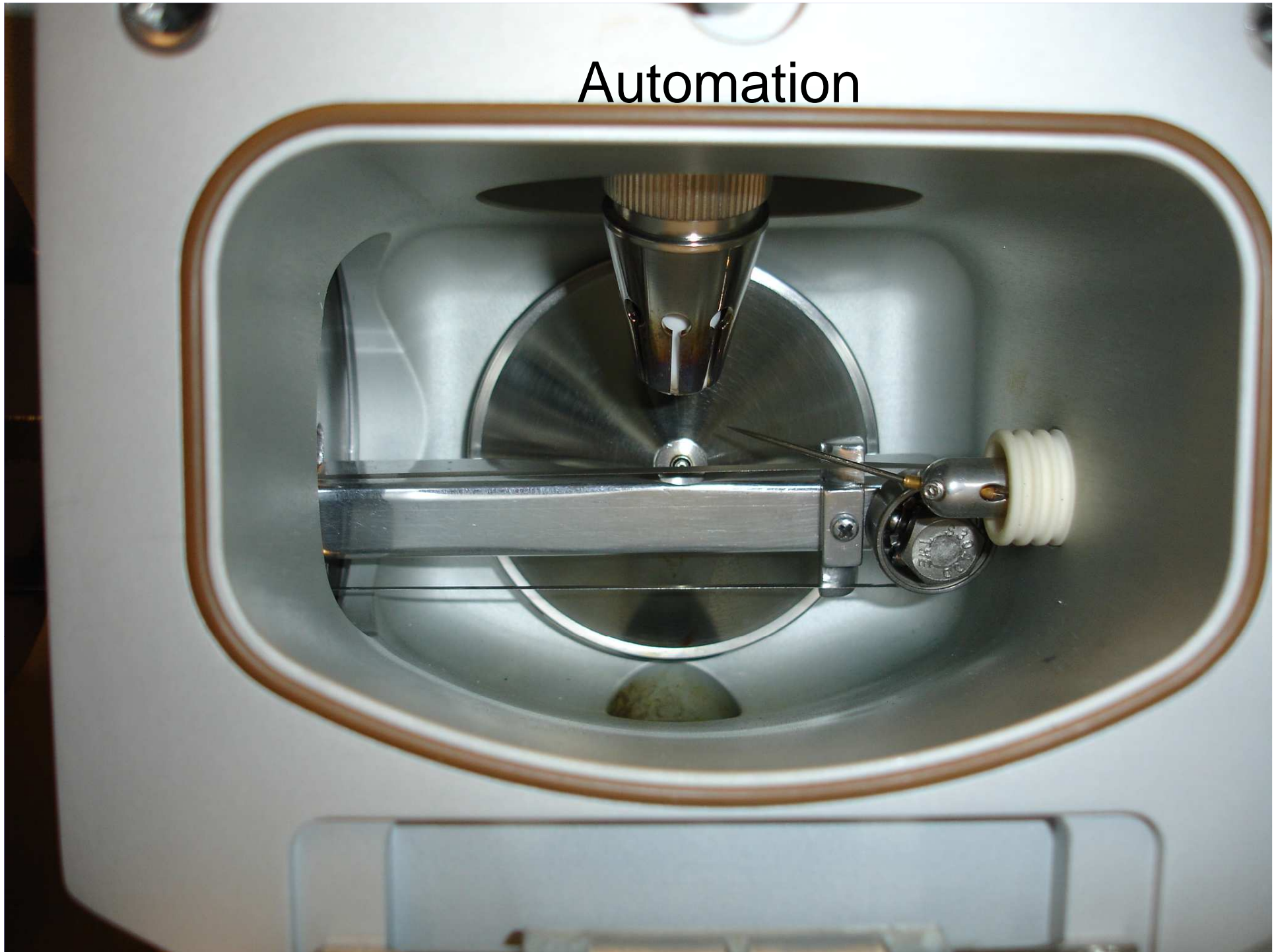
# ASAP of Catnip Leaf Normal Growth and After Growth in Cold and Dark



# Melamine



# Automation



# Conclusions

- Easy
- Fast
- Nearly universal for vaporizable compounds
- No Interference with most LC/MS sources
- Inexpensive



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**Agilent GC**

