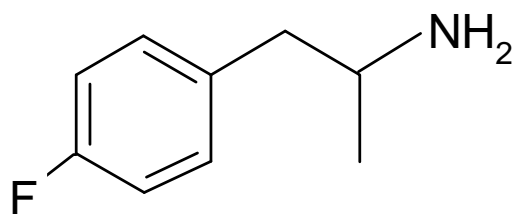


4-Fluoroamphetamine (4-FA)



Example:-

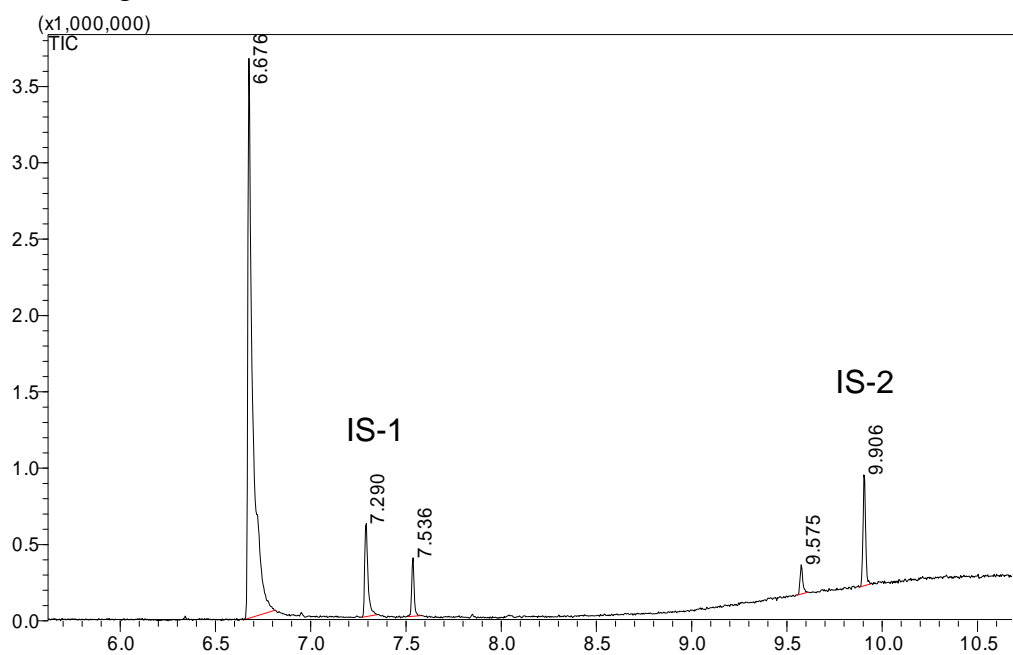
Chromatogram and mass spectra of a typical case sample of 4-FA powder, presumably sold on the street as "amphetamine" in the UK:

4-FA	4-Fluoroamphetamine	6.676 min
LID	Lidocaine	9.575 min

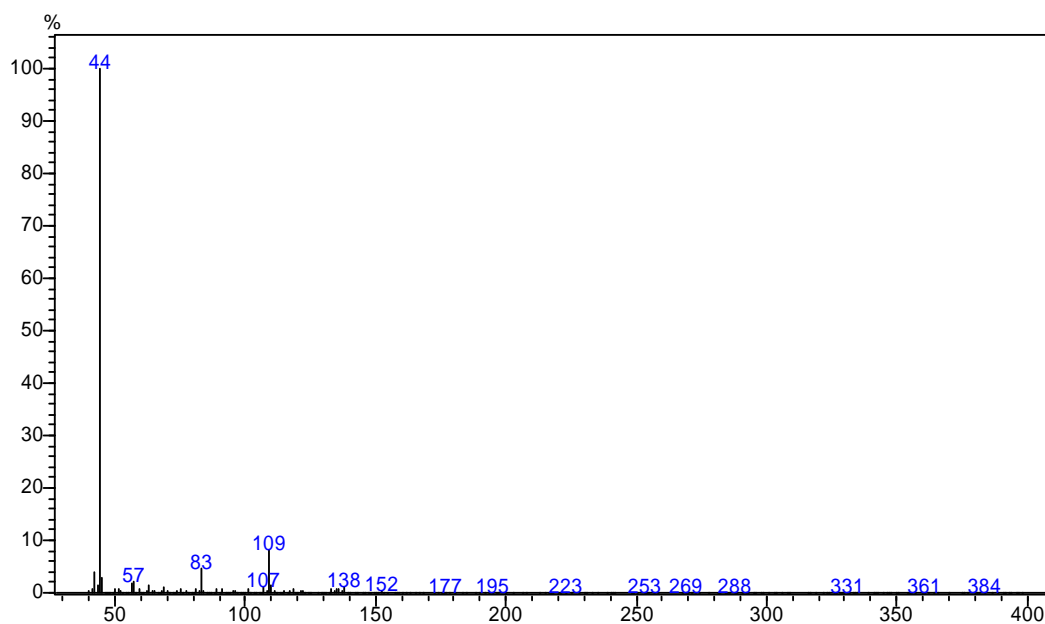
Internal Standards

IS-1	Quinoline	7.290 min
IS-2	Pyribenzamine	9.906 min

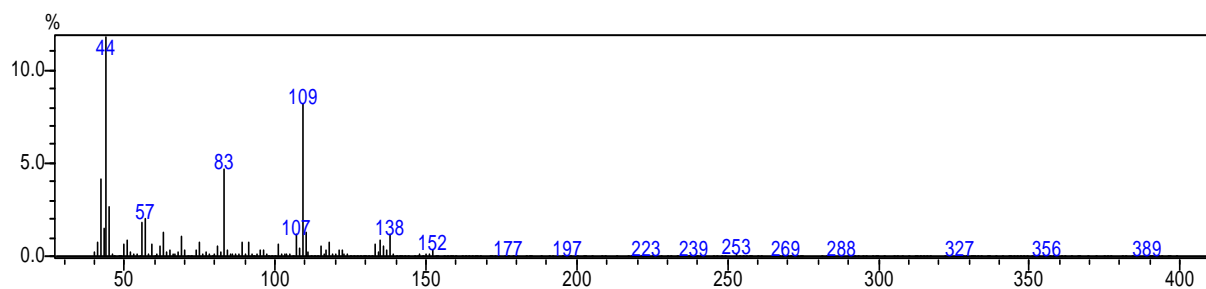
Chromatogram:



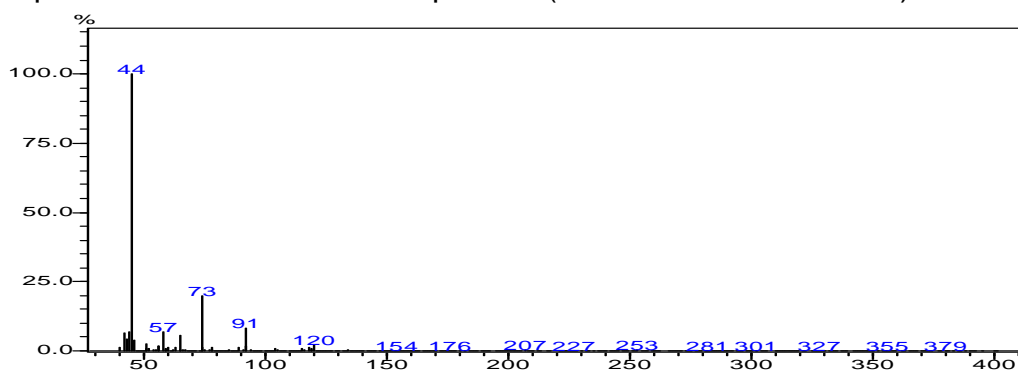
Mass spectrum of 4-FA:



Zoom to minor fragments:



Amphetamine standard for comparison (retention time 6.612 min):



GC/MS conditions

Sample was analysed on a Shimadzu QP2010 gas chromatograph mass spectrometer with an HP5MS column (30m x 0.25mm, 0.50µm).

Column oven temperature	80°C
Injection temperature	225°C
Injection mode	Splitless
Carrier gas	Helium
Flow rate	1.0 ml/min
Pressure	9.5 psi
Ion source temperature	200°C
Interface temperature	250°C

Column oven temperature programme:

Rate	Final temperature	Hold time
-	80°C	4 minutes
40.00°C/min	280°C	8 minutes
40.00°C/min	290°C	11.5 minutes

The presence of 4-Fluoramphetamine in the powder was confirmed by ^1H , ^{13}C and ^{19}F NMR.

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John Ramsey
Roland Archer**

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