

## MS/MS Parameters of Pesticides

### Analyte: Bifenthrin

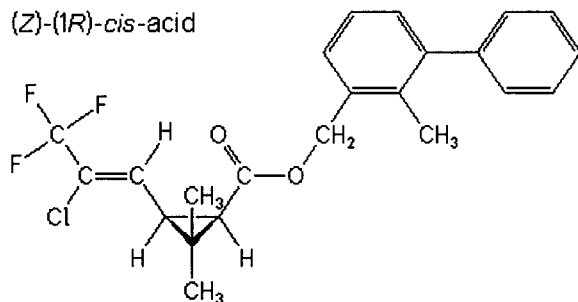
CAS No.: 82657-04-3

Formula: C<sub>23</sub>H<sub>22</sub>ClF<sub>3</sub>O<sub>2</sub>

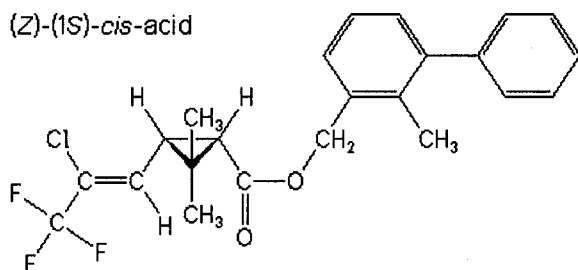
Exact molecular mass (lowest isotopes): 422,13 amu

Structure:

(Z)-(1R)-cis-acid



(Z)-(1S)-cis-acid



Ionisation: ESI +

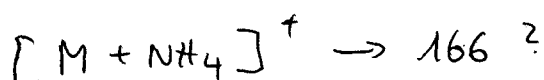
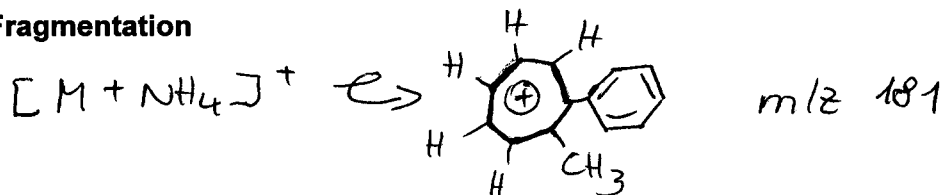
Quasimolecular ion: 440,1 amu = [M+NH<sub>4</sub>]<sup>+</sup>

Analyte sensitive parameter set (API 2000)

Transition	440,1 → 181,2	440,1 → 166,2
Declustering potential (DP) <sup>*)</sup>	36V	36 V
Focusing potential (FP)	350 V	370 V
Entrance potential (EP)	7,0 V	8,0 V
Collision cell entrance potential (CEP)	22 V	22 V
Collision energy (CE)	21 V	55 V
Collision cell exit potential (CXP)	10 V	8 V

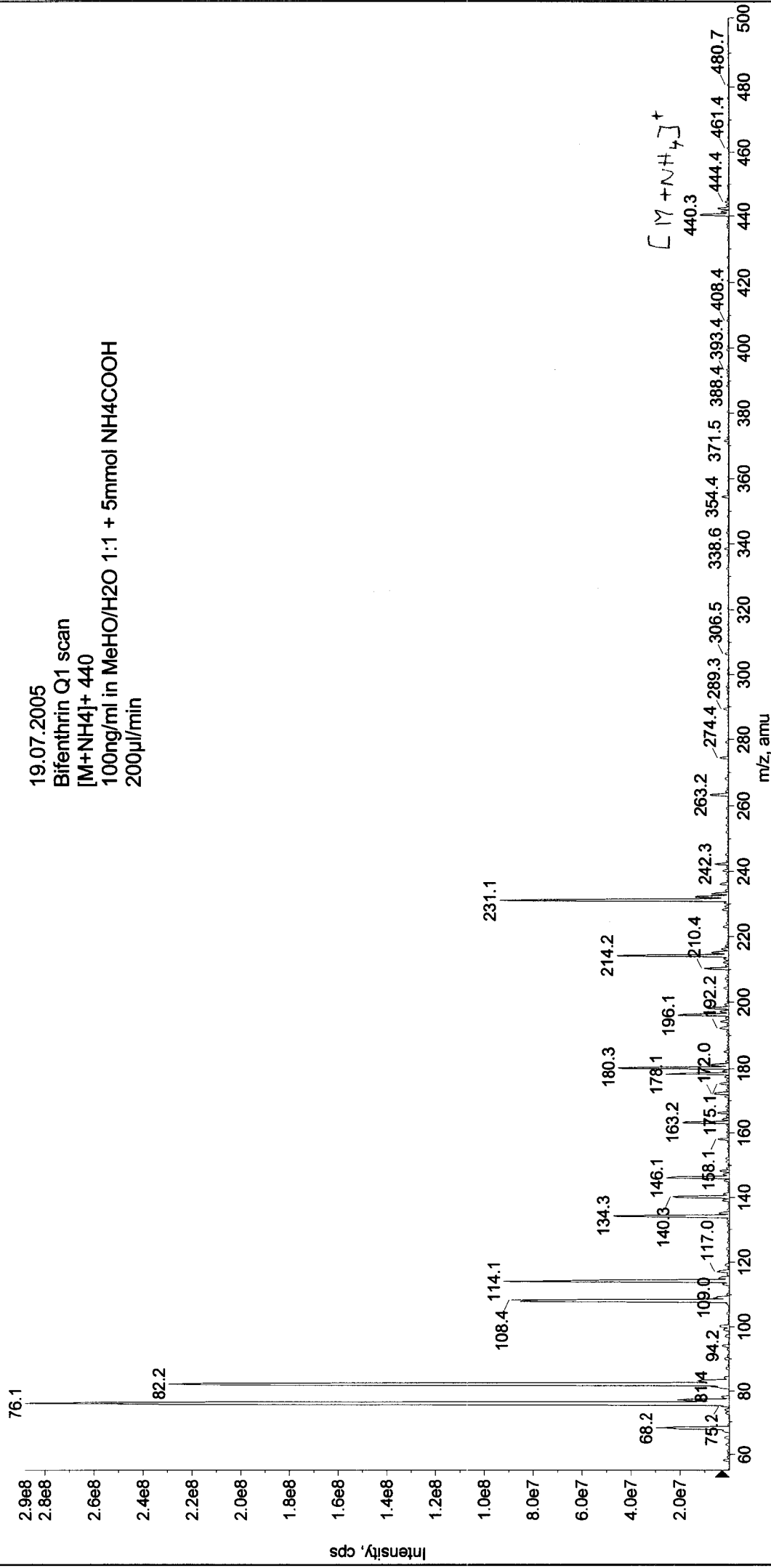
<sup>\*)</sup> For API 3000 and 4000 enhance DP by 20V

### Fragmentation



+Q1: 30 MCA scans from Sample 1 (TuneSampleID) of MT20050719130323.wiff (Turbo Spray)

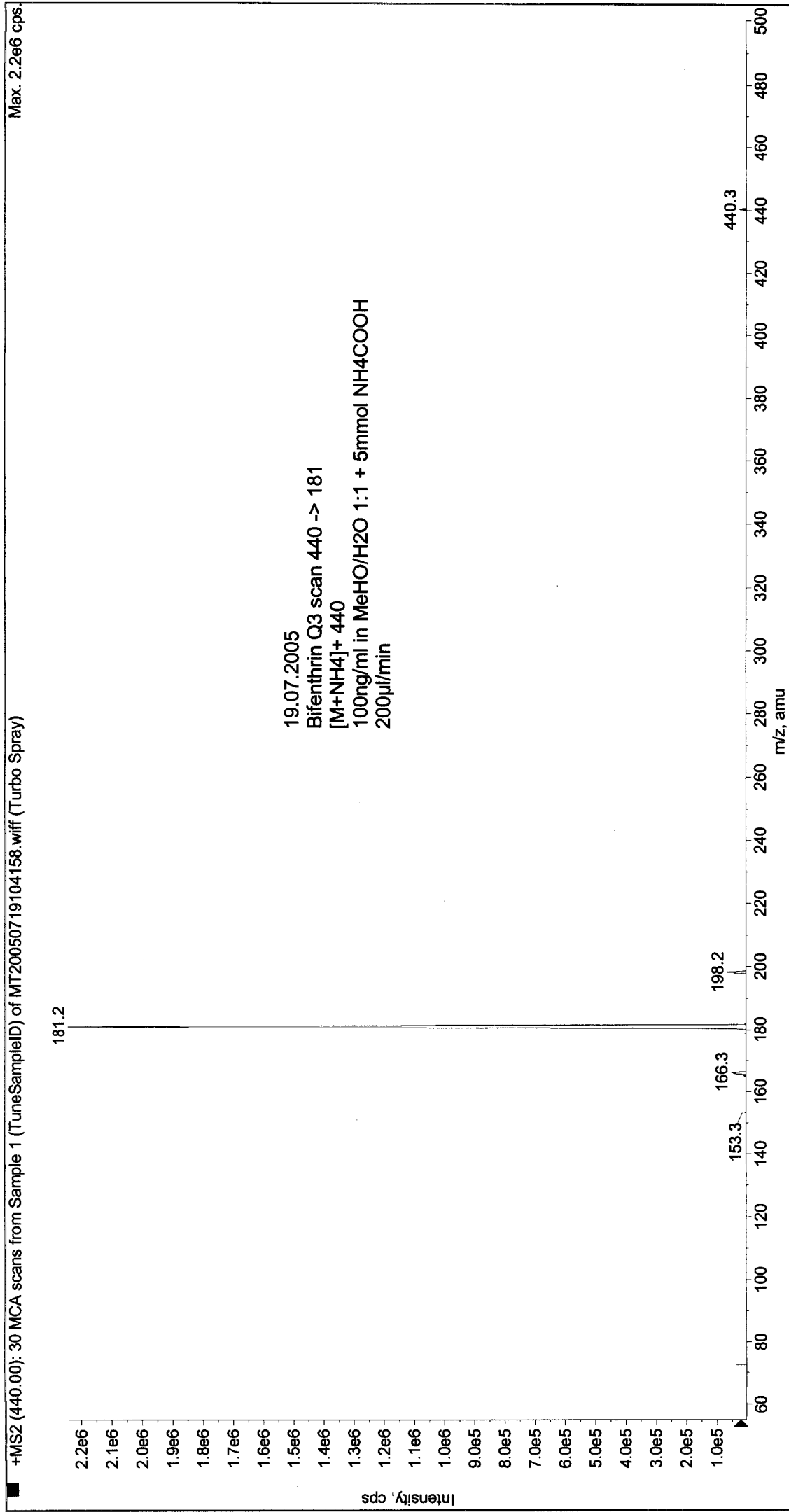
Max. 2.9e8 cps



Printing Time: 10:43:07  
Printing Date: Tuesday, July 19, 2005

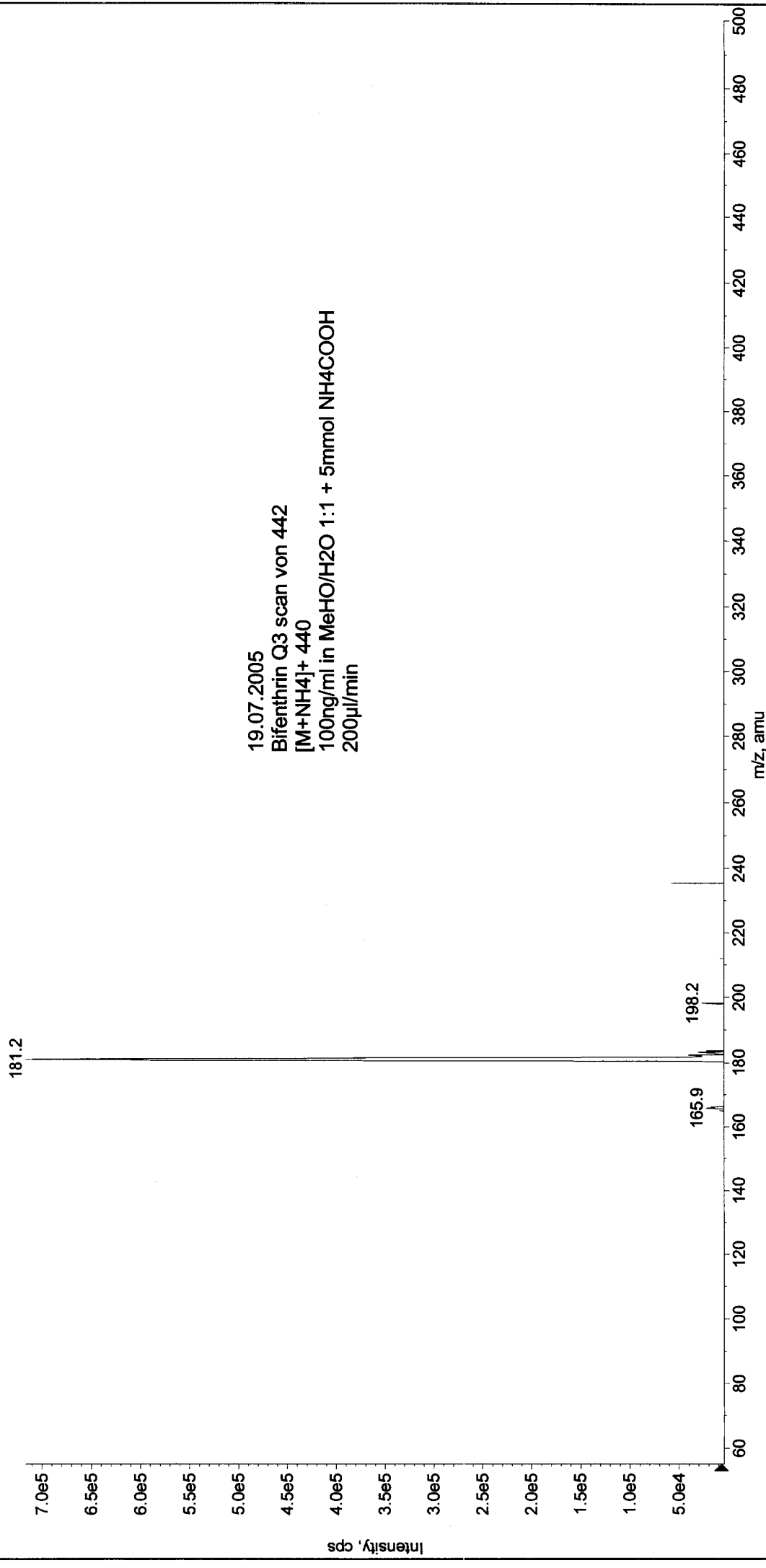
Acq. Time: 10:41  
Acq. Date: Tuesday, July 19, 2005  
Acq. File: MT20050719104158.wiff

Sample Comment:  
Sample Name: TuneSampleID  
Batch Name: ManualTune.bat



■ +MS2 (442.00): 30 MCA scans from Sample 1 (TuneSampleID) of MT20050719104321.wiff (Turbo Spray)

Max. 7.2e5 cps



19.07.2005  
Bifenthrin Q3 scan von 442  
[M+NH4]<sup>+</sup> 440  
100ng/ml in MeHO/H<sub>2</sub>O 1:1 + 5mmol NH<sub>4</sub>COOH  
200µl/min

