# Supplementary Material

# The synthesis and energetic properties of pyridinium and triazolium nitrobenzoyl ylids

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*[e]Department of Chemistry, University of Idaho, Moscow, Idaho 83844-2343, USA*
*[f]Chemistry Department, University of Canterbury, Christchurch, New Zealand*

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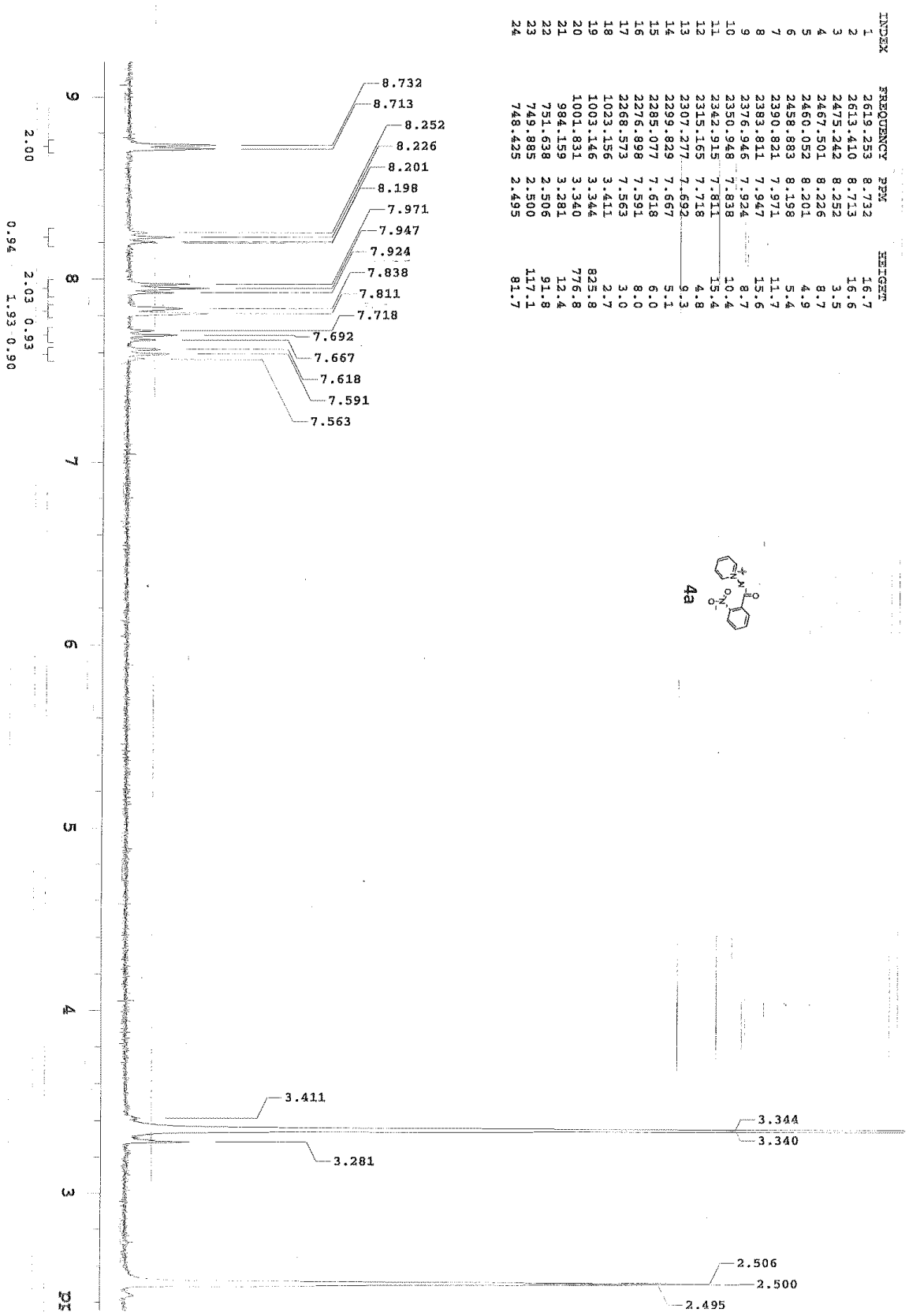
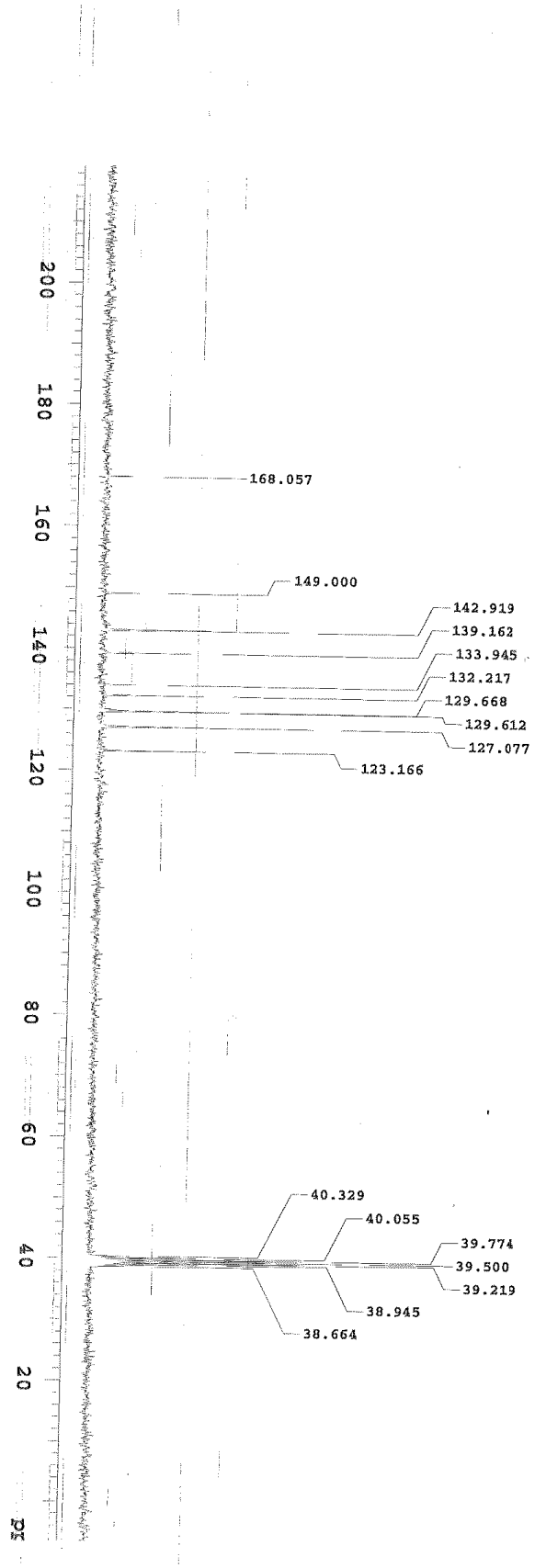
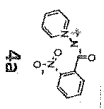





| INDEX | FREQUENCY | PPM | HEIGHT |
|---|---|---|---|
| 1 | 12675.454 | 168.057 | 4.9 |
| 2 | 11238.074 | 149.000 | 6.2 |
| 3 | 10779.426 | 142.919 | 33.2 |
| 4 | 10496.081 | 139.162 | 15.8 |
| 5 | 10102.576 | 133.945 | 6.5 |
| 6 | 9972.290 | 132.217 | 18.1 |
| 7 | 9780.039 | 129.668 | 22.8 |
| 8 | 9775.802 | 129.612 | 19.6 |
| 9 | 9584.611 | 127.077 | 37.8 |
| 10 | 9289.614 | 123.166 | 18.7 |
| 11 | 3041.725 | 40.329 | 7.0 |
| 12 | 3021.070 | 40.055 | 18.9 |
| 13 | 2999.885 | 39.774 | 37.9 |
| 14 | 2979.230 | 39.500 | 44.8 |
| 15 | 2958.046 | 39.219 | 38.4 |
| 16 | 2937.391 | 38.945 | 19.3 |
| 17 | 2916.206 | 38.664 | 6.1 |



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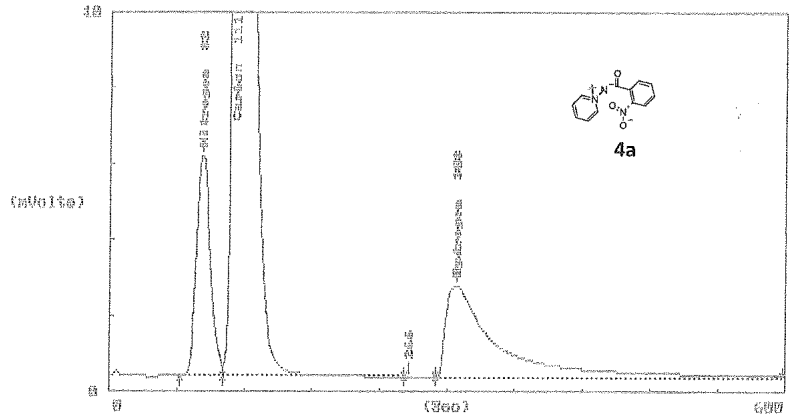
## EAGER 200 Stripchart

Sample Ident. : 12 HZ-9 Filename :288912
Analysed : 08-11-14 09:37:27 Printed :08-11-2014 09:47:30




## EAGER 200 Peak Integration Report

Instrument name : Instrument #1 Bline drift (fV):-3.4
Company Name : U of Florida Operator Ident. : KOU
Analysed : 08-11-14 09:37:27 Printed : 08-11-2014 09:47:30
Sample Ident. : 12 HZ-9 Filename : 288912
Sample Weight : 2.173 Calc.method: using 'K. Factors'

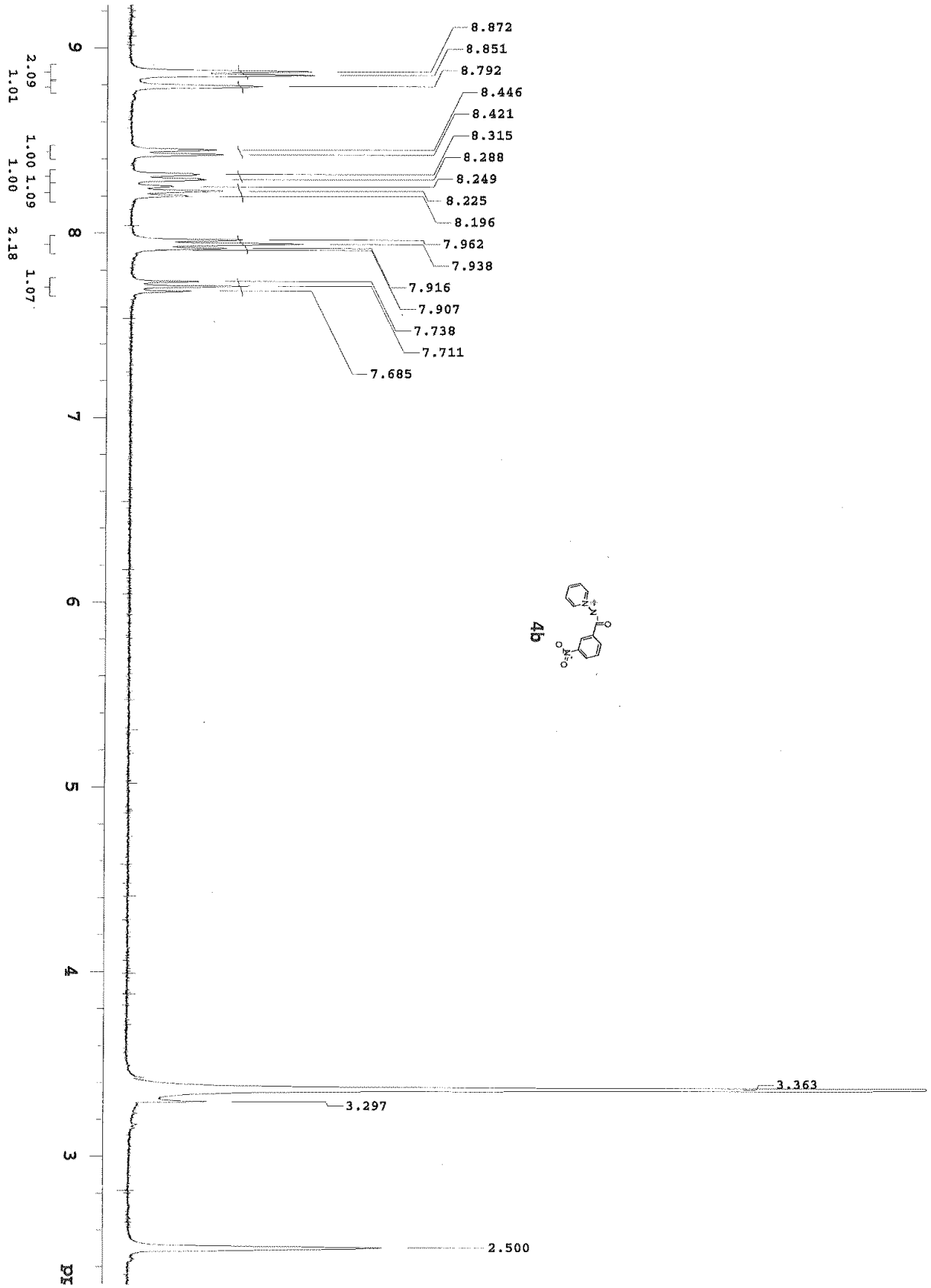
| No. (#) | Type (#) | Start (Sec) | End (Sec) | Ret Time (Sec) | Height (fV) | Area (fV*Sec) | Area % (%) | Name |
|---|---|---|---|---|---|---|---|---|
| 1 | FU | 63 | 101 | 82 | 5787.8 | 76951 | 8.09 | Nitrogen |
| 2 | FU | 101 | 262 | 111 | 50116.3 | 750819 | 78.98 | Carbon |
| 3 | RS | 262 | 290 | 266 | 4.0 | 58 | 0.01 | |
| 4 | RS | 290 | 598 | 308 | 2356.3 | 122875 | 12.92 | Hydrogen |
| | | | | | | 950702 | 100.00 | |

## EAGER 200 Unk Report

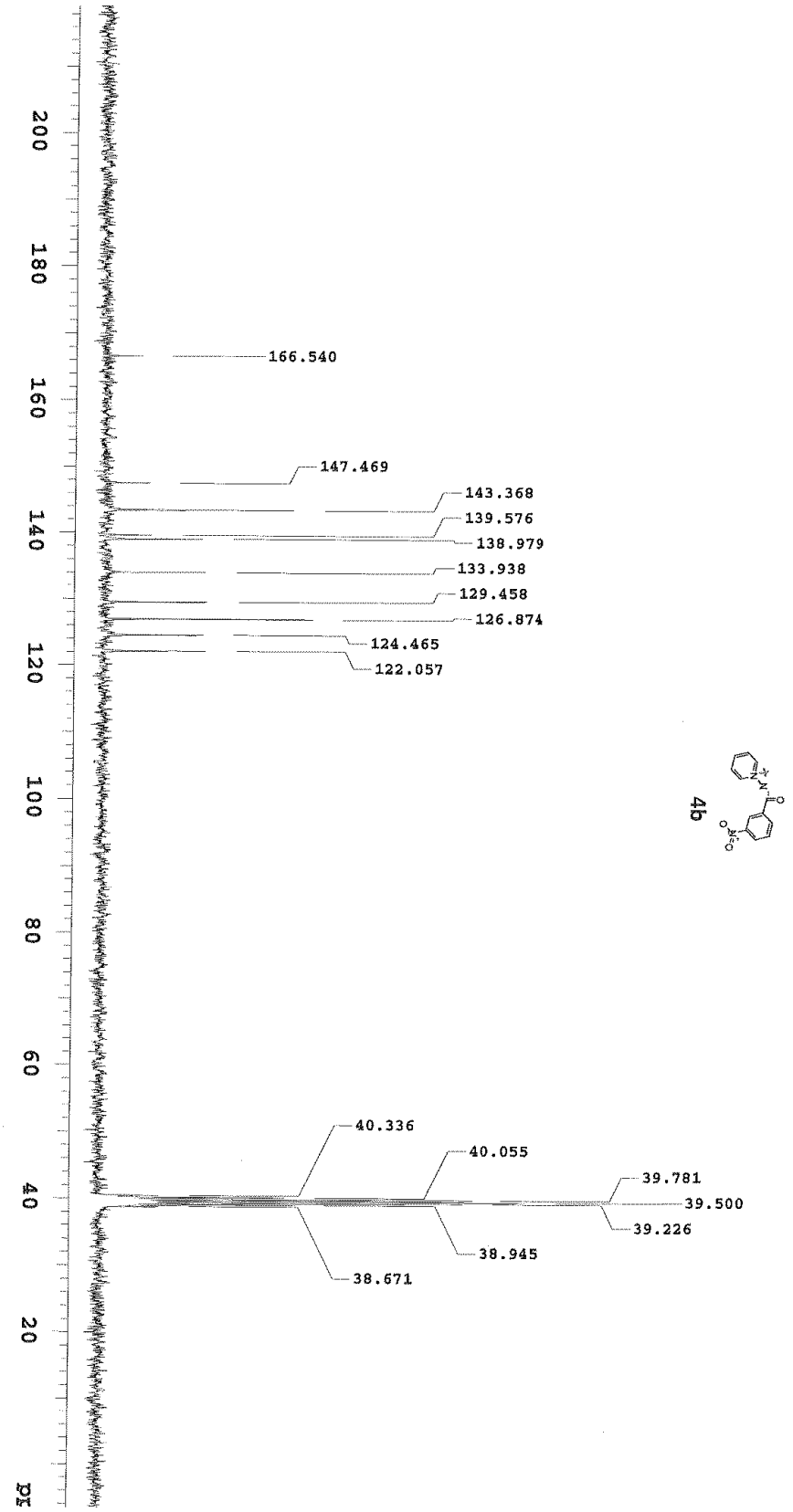
Instrument name : Instrument #1 Bline drift (fV):-3.4
Company Name : U of Florida Operator Ident. : KOU
Analysed : 08-11-14 09:37:27 Printed : 08-11-2014 09:47:30
Sample Ident. : 12 HZ-9 Filename : 288912
Sample Weight : 2.173 Calc.method: using 'K. Factors'

| Pk. (#) | Ret Time (Sec) | Area (fV*Sec) | Element % (%) | Area Ratio | Name |
|---|---|---|---|---|---|
| 1 | 82 | 76951 | 17.205 | .975716E+01 | Nitrogen |
| 2 | 111 | 750819 | 58.944 | .100000E+01 | Carbon |
| 4 | 308 | 122875 | 3.474 | .611045E+01 | Hydrogen |

passed





## EAGER 200 Stripchart

Sample Ident. : 15 HZ-20 Filename :288815
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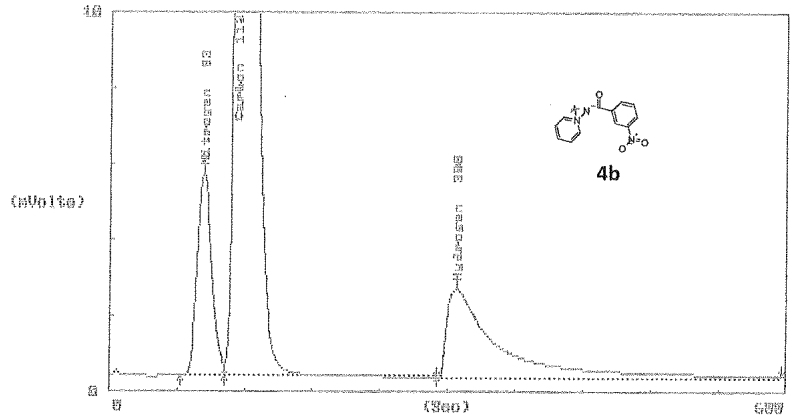



## EAGER 200 Peak Integration Report

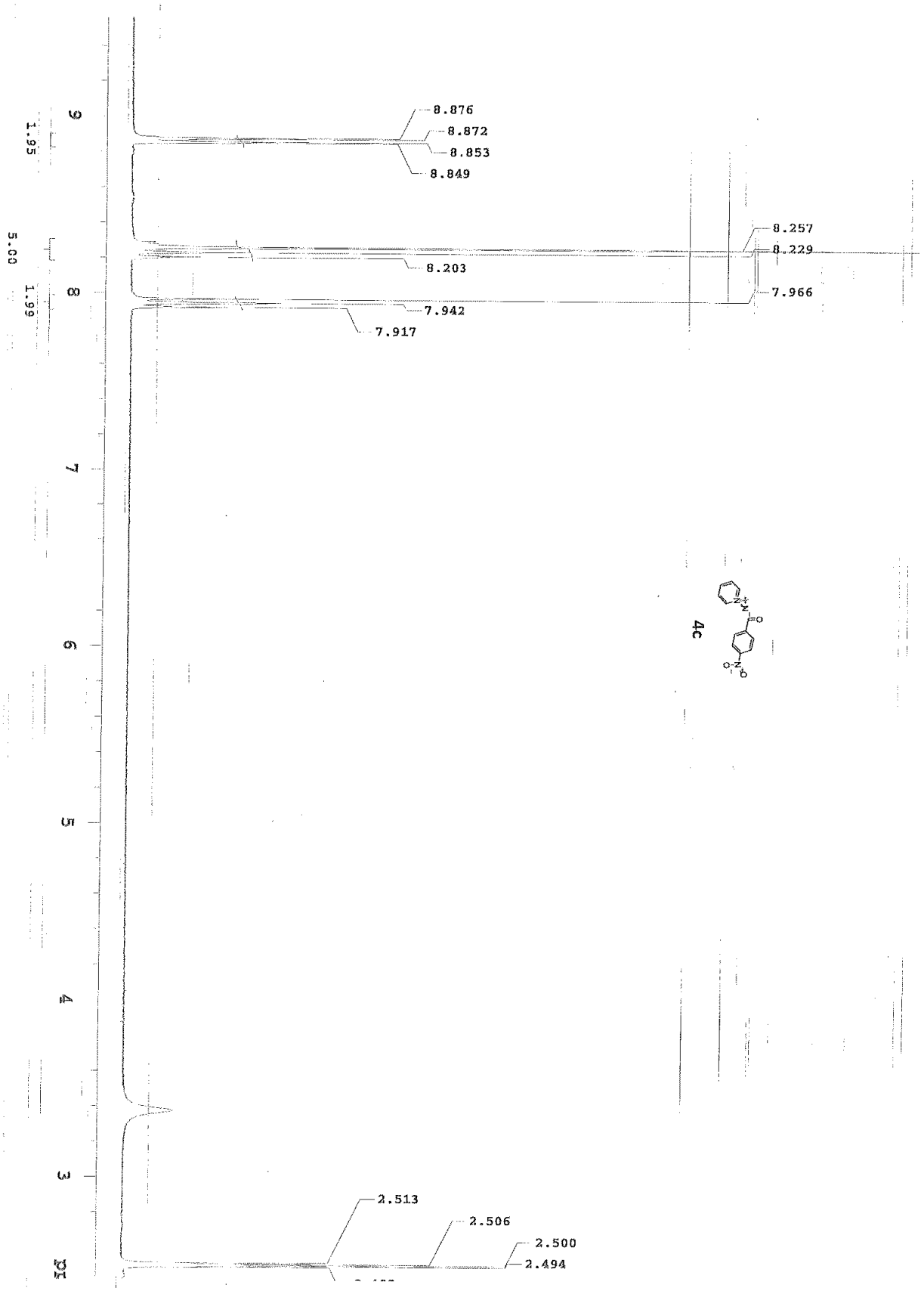
Instrument name : Instrument #1 Bline drift (fV): 4.8
Company Name : U of Florida Operator Ident. : KOU
Analysed : 08-01-14 11:13:24 Printed : 08-01-2014 11:23:26
Sample Ident. : 15 HZ-20 Filename : 288815
Sample Weight : 2.12 Calc.method: using 'K. Factors'

| No. (#) | Type (#) | Start (Sec) | End (Sec) | Ret Time (Sec) | Height (fV) | Area (fV*Sec) | Area % (%) | Name |
|---|---|---|---|---|---|---|---|---|
| 1 | FU | 63 | 102 | 83 | 5278.2 | 73898 | 8.04 | Nitrogen |
| 2 | FU | 102 | 291 | 112 | 47264.7 | 727924 | 79.22 | Carbon |
| 3 | RS | 291 | 597 | 308 | 2245.2 | 117032 | 12.74 | Hydrogen |
| | | | | | | 918853 | 100.00 | |

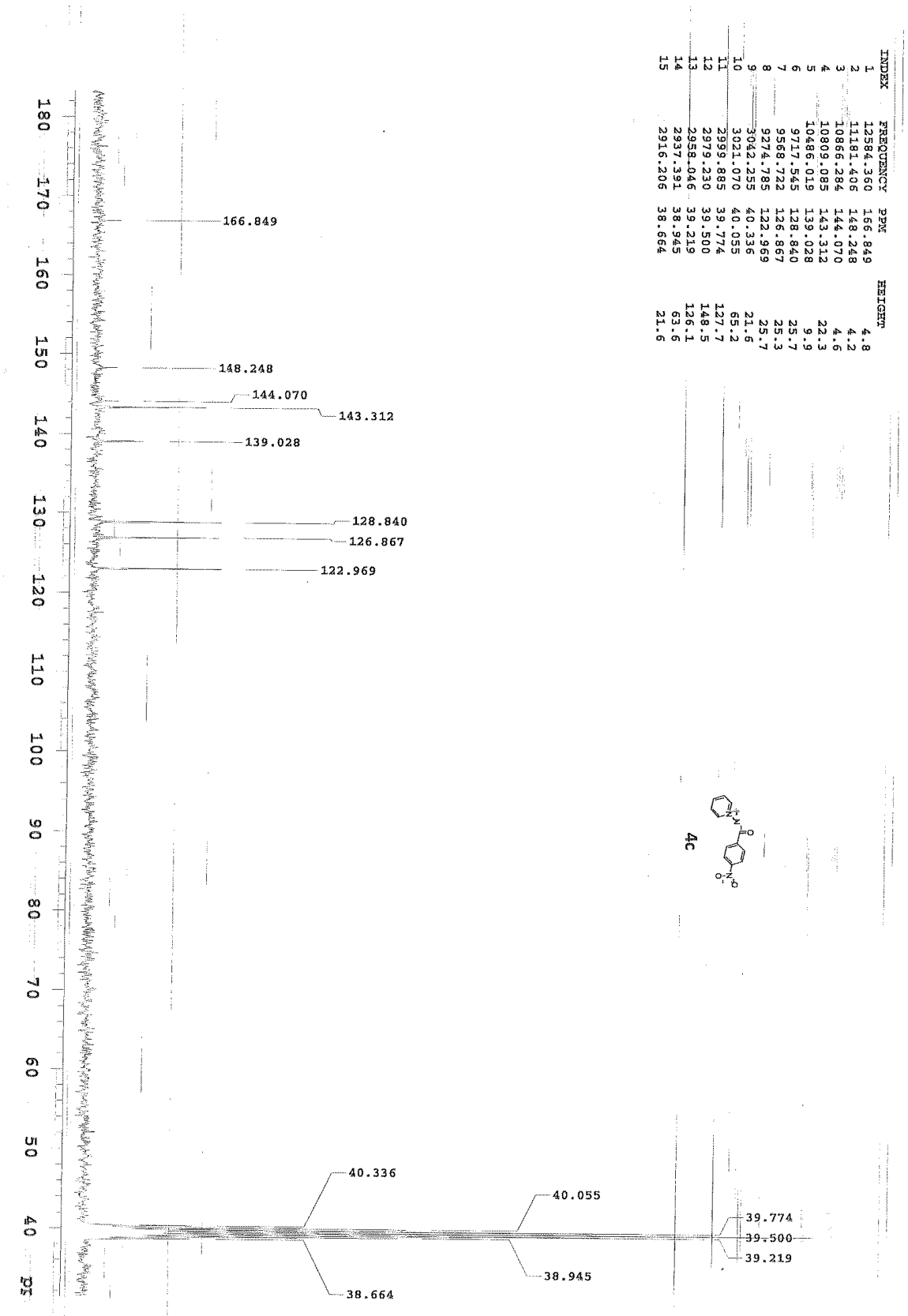
## EAGER 200 Unk Report

Instrument name : Instrument #1 Bline drift (fV): 4.8
Company Name : U of Florida Operator Ident. : KOU
Analysed : 08-01-14 11:13:24 Printed : 08-01-2014 11:23:26
Sample Ident. : 15 HZ-20 Filename : 288815
Sample Weight : 2.12 Calc.method: using 'K. Factors'

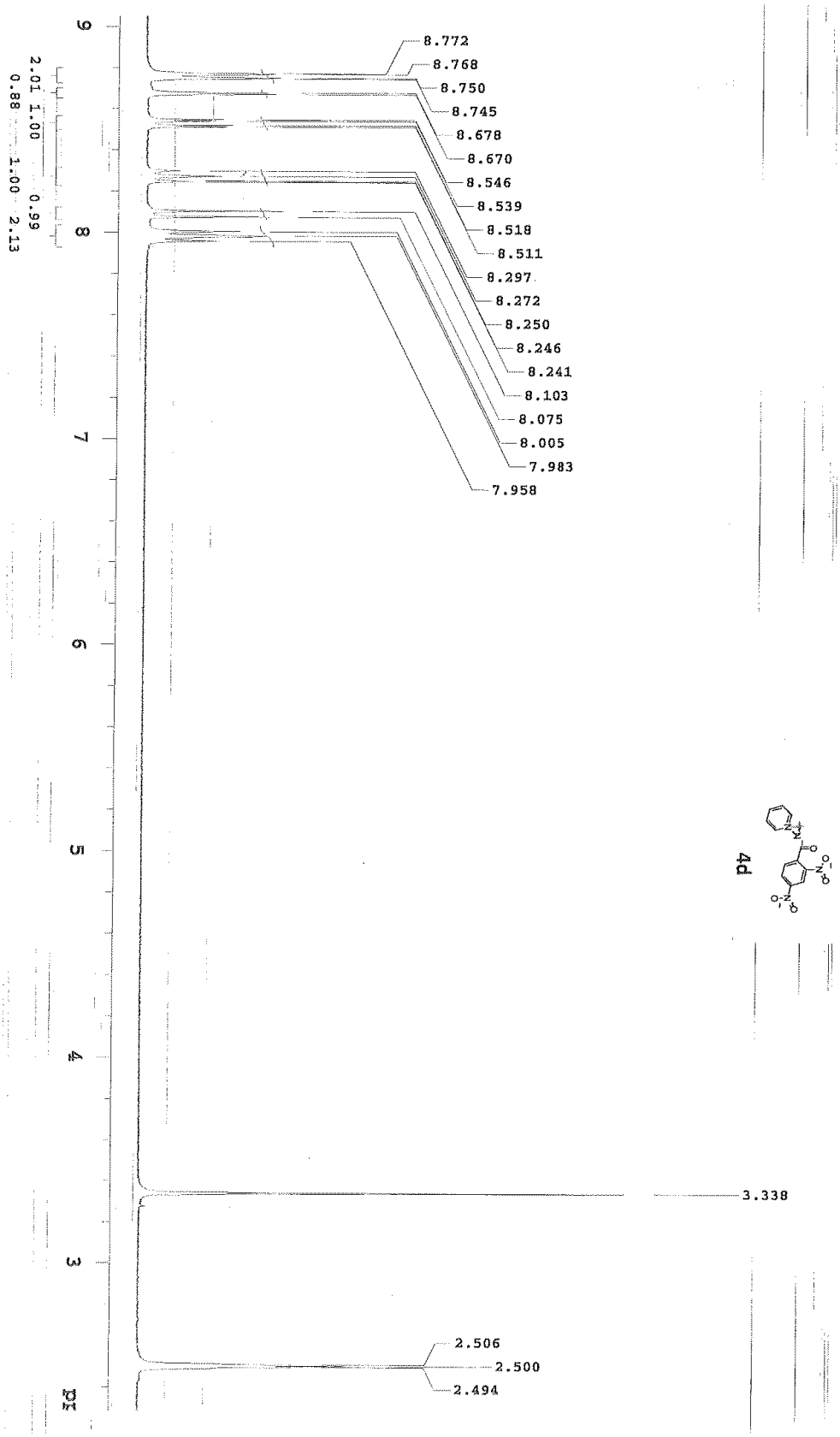
| Pk. (#) | Ret Time (Sec) | Area (fV*Sec) | Element % (%) | Area Ratio | Name |
|---|---|---|---|---|---|
| 1 | 83 | 73898 | 16.603 | .985041E+01 | Nitrogen |
| 2 | 112 | 727924 | 57.214 | .100000E+01 | Carbon |
| 3 | 308 | 117032 | 3.284 | .621987E+01 | Hydrogen |



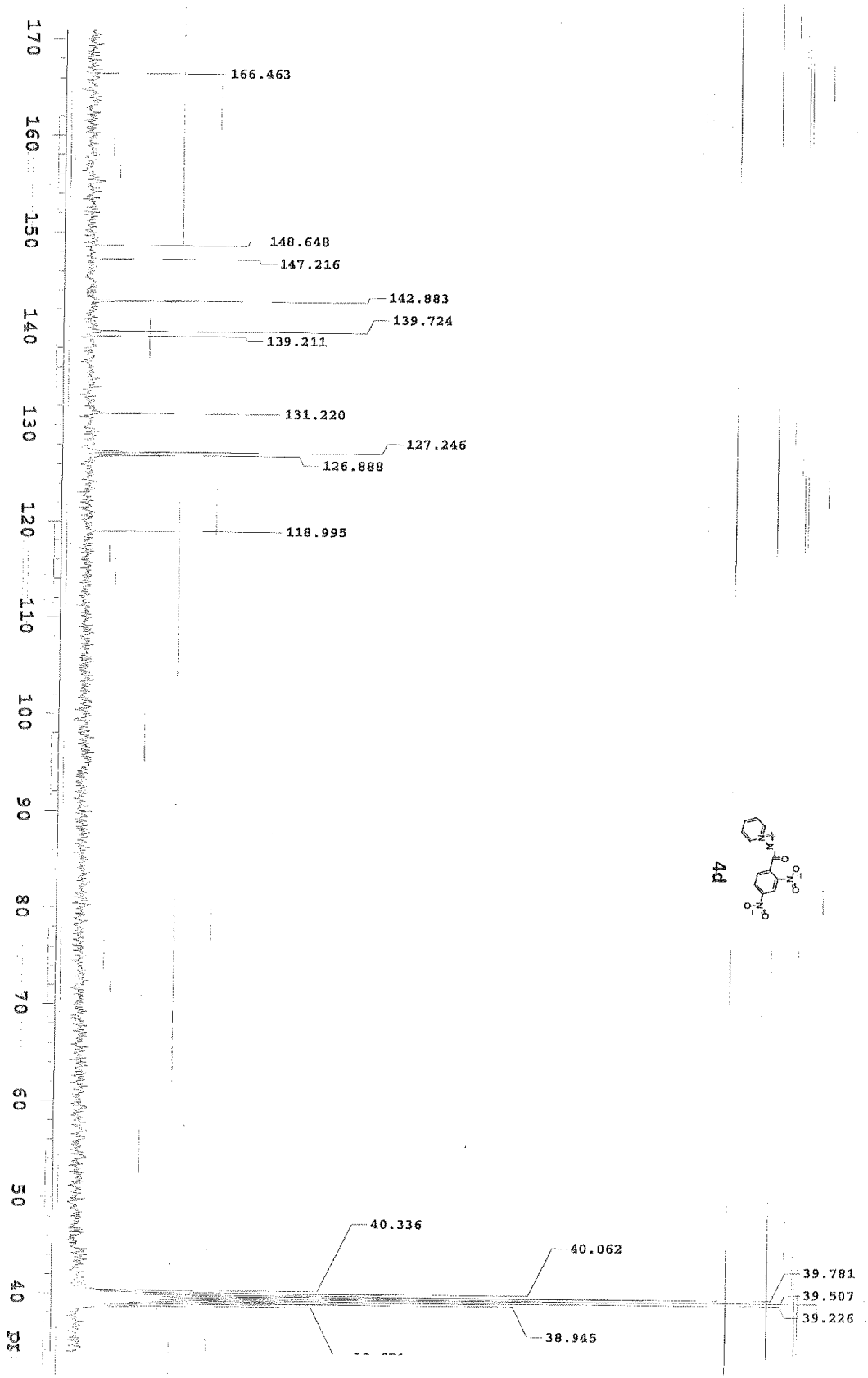

 





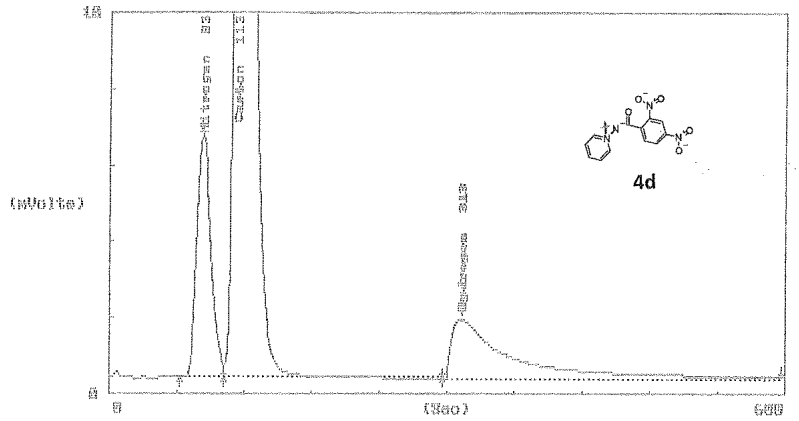

 



## EAGER 200 Strip chart

Sample Ident. : 22 HZ-14 Filename :289022
Analysed : 08-18-14 12:18:17 Printed :08-18-2014 12:28:19




## EAGER 200 Peak Integration Report

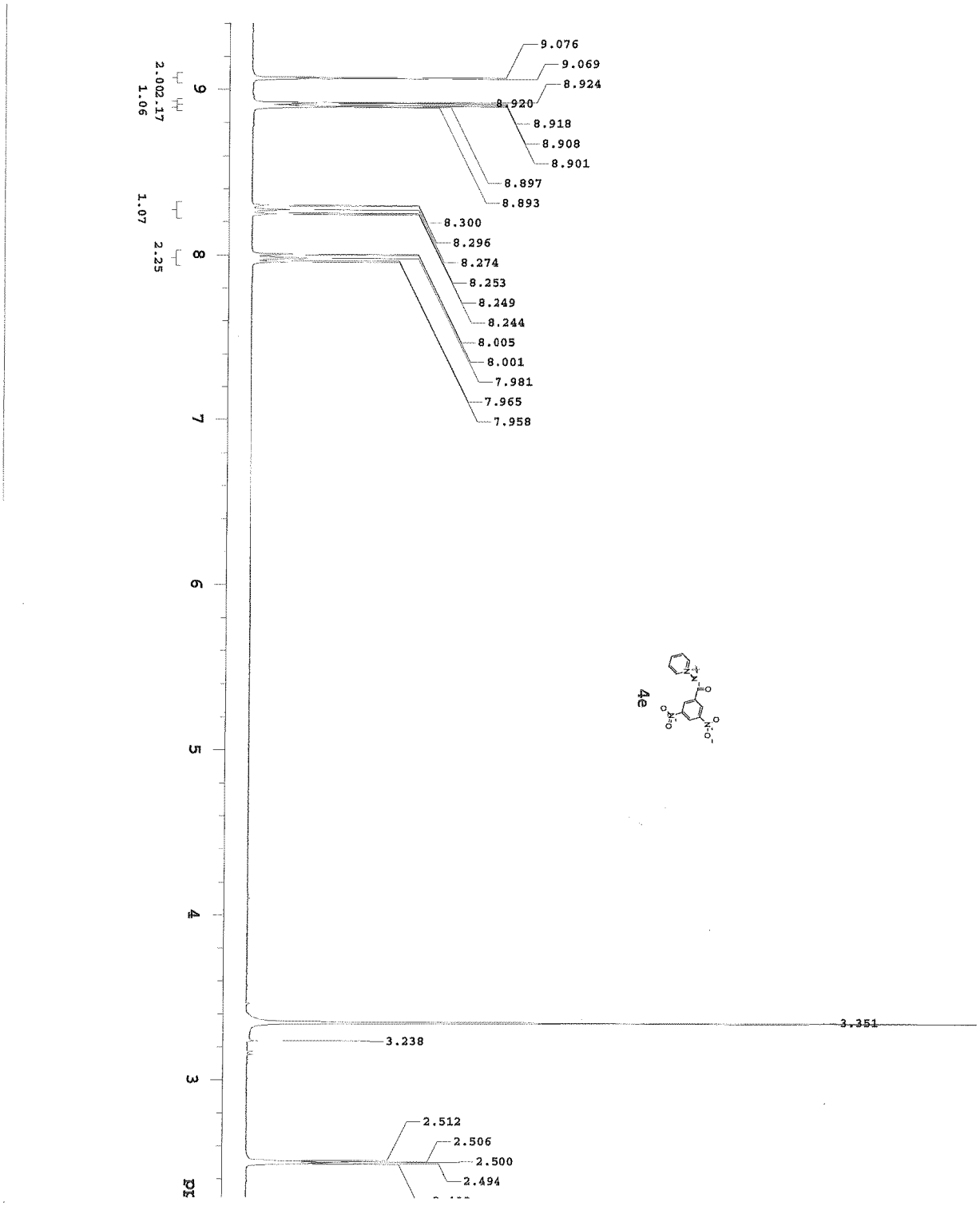
Instrument name : Instrument #1 Bline drift (fV): 2.4
Company Name : U of Florida Operator Ident. : KOU
Analysed : 08-18-14 12:18:17 Printed : 08-18-2014 12:28:19
Sample Ident. : 22 HZ-14 Filename : 289022
Sample Weight : 2.165 Calc.method: using 'K. Factors'

| No. (#) | Type (#) | Start (Sec) | End (Sec) | Ret Time (Sec) | Height (fV) | Area (fV*Sec) | Area % (%) | Name |
|---|---|---|---|---|---|---|---|---|
| 1 | FU | 63 | 102 | 83 | 6333.0 | 86398 | 10.55 | Nitrogen |
| 2 | FU | 102 | 296 | 113 | 42803.9 | 644115 | 78.64 | Carbon |
| 3 | RS | 296 | 597 | 313 | 1518.4 | 88538 | 10.81 | Hydrogen |
| | | | | | | 819051 | 100.00 | |

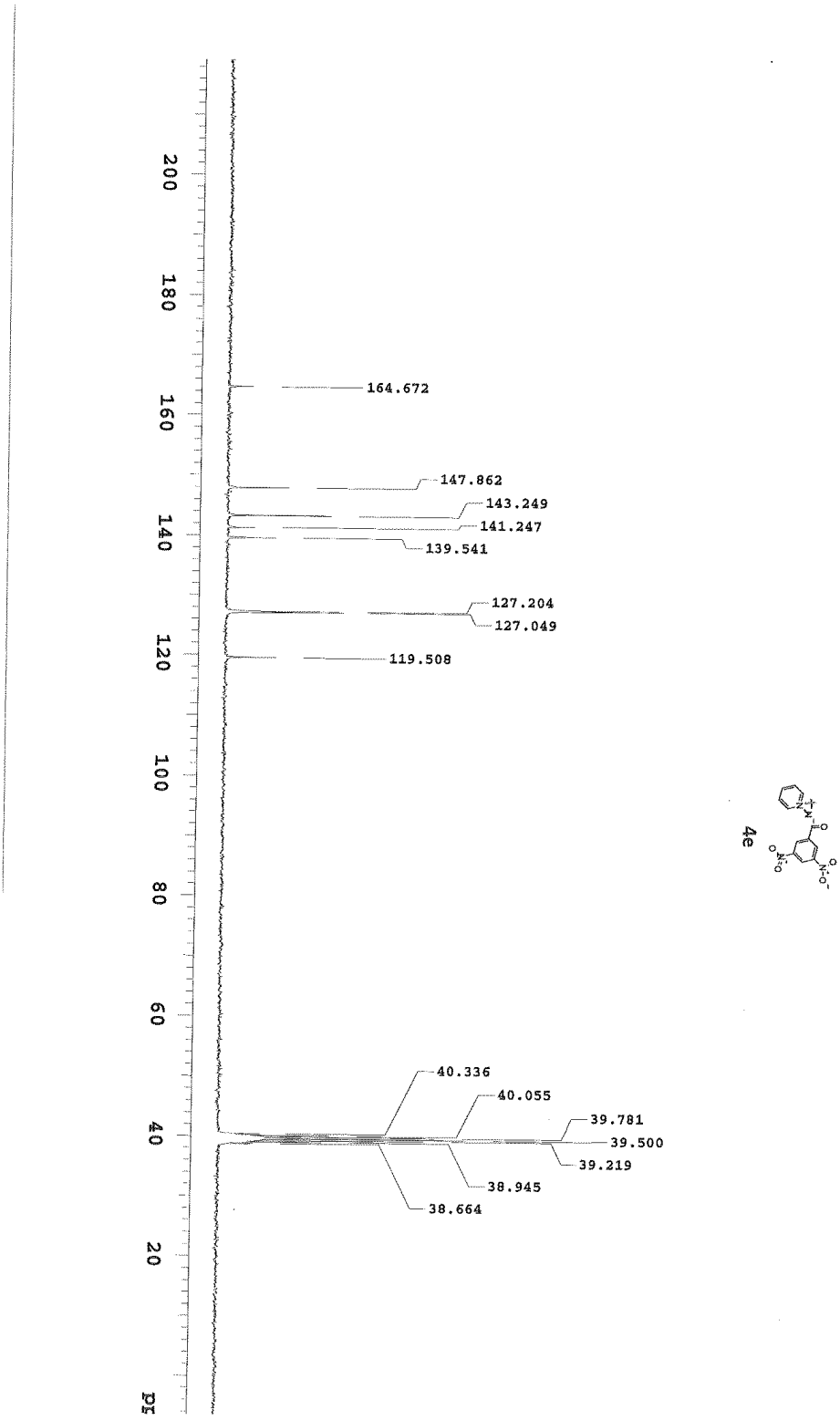
## EAGER 200 Unk Report

Instrument name : Instrument #1 Bline drift (fV): 2.4
Company Name : U of Florida Operator Ident. : KOU
Analysed : 08-18-14 12:18:17 Printed : 08-18-2014 12:28:19
Sample Ident. : 22 HZ-14 Filename : 289022
Sample Weight : 2.165 Calc.method: using 'K. Factors'

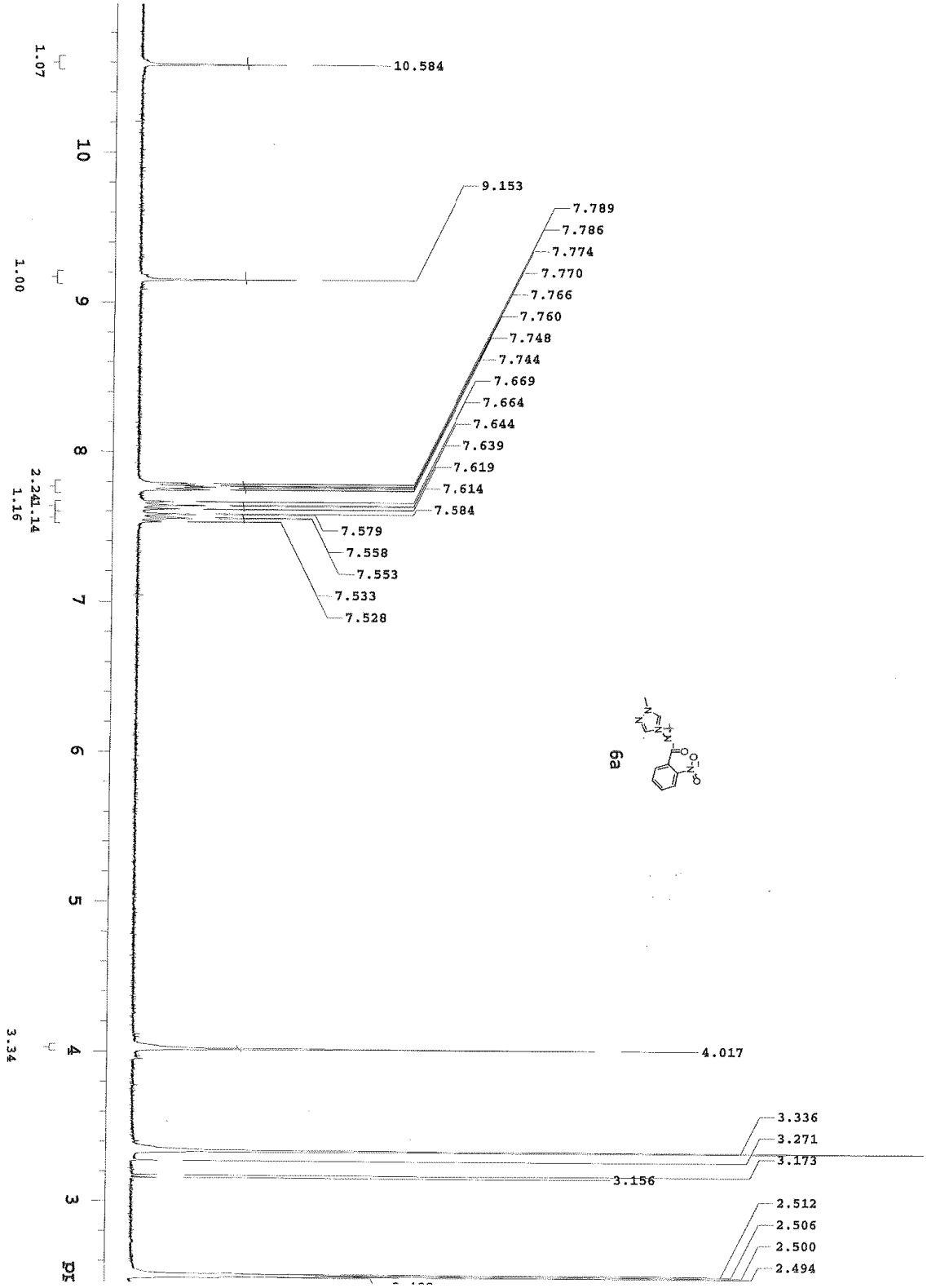
| Pk. (#) | Ret Time (Sec) | Area (fV*Sec) | Element % (%) | Area Ratio | Name |
|---|---|---|---|---|---|
| 1 | 83 | 86398 | 19.125 | .745521E+01 | Nitrogen |
| 2 | 113 | 644115 | 50.056 | .100000E+01 | Carbon |
| 3 | 313 | 88538 | 2.483 | .727505E+01 | Hydrogen |



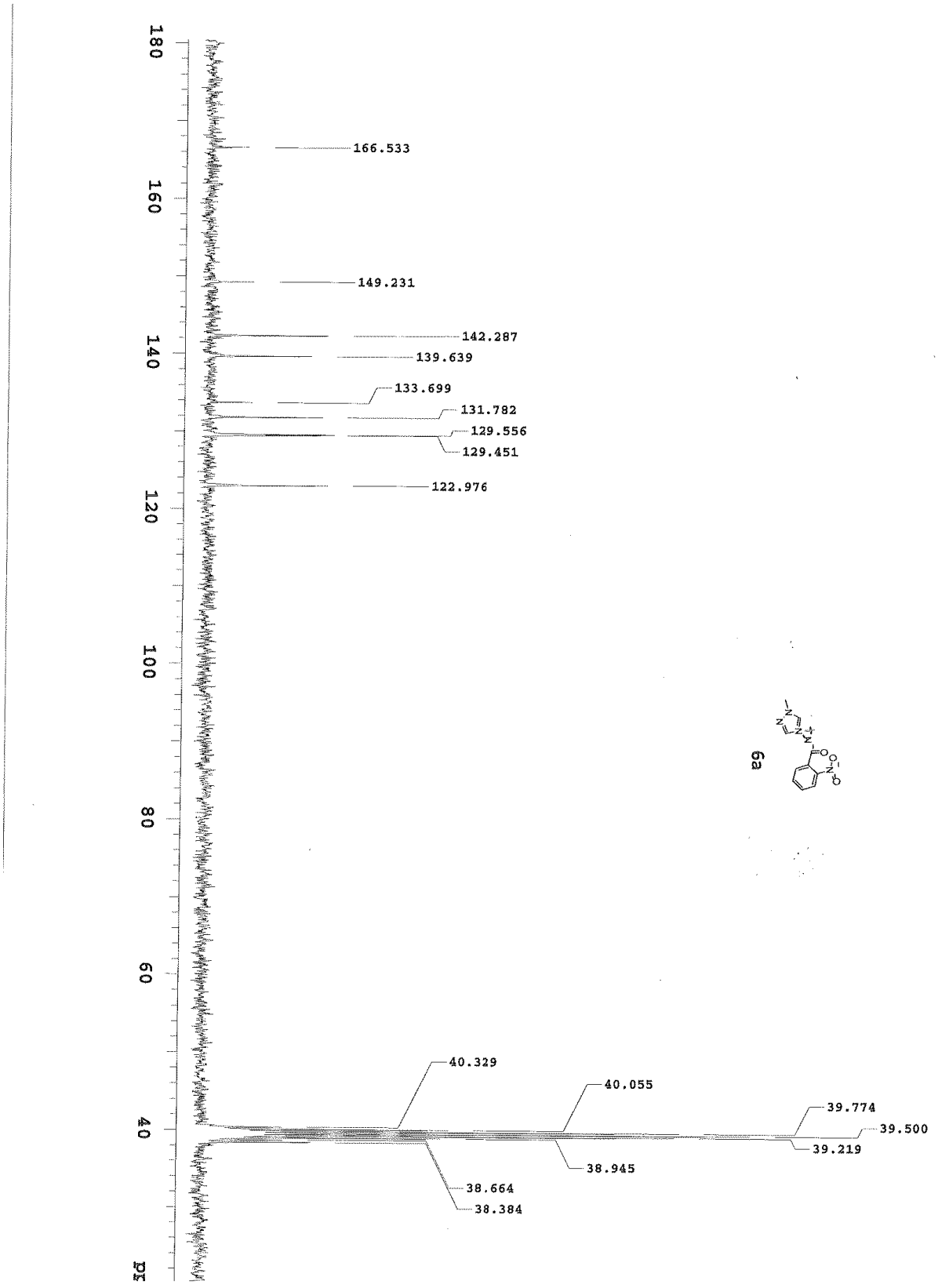

 





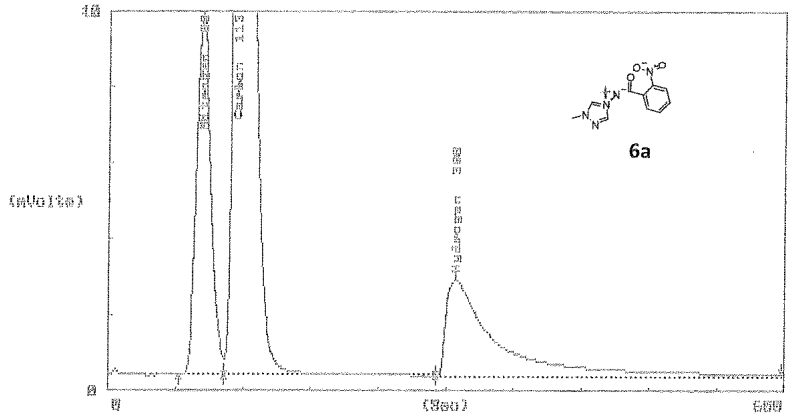

 



## EAGER 200 Stripchart

Sample Ident. : 16 HZ-21 Filename :288816
Analysed : 08-01-14 11:23:26 Printed :08-01-2014 11:33:29

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## EAGER 200 Peak Integration Report

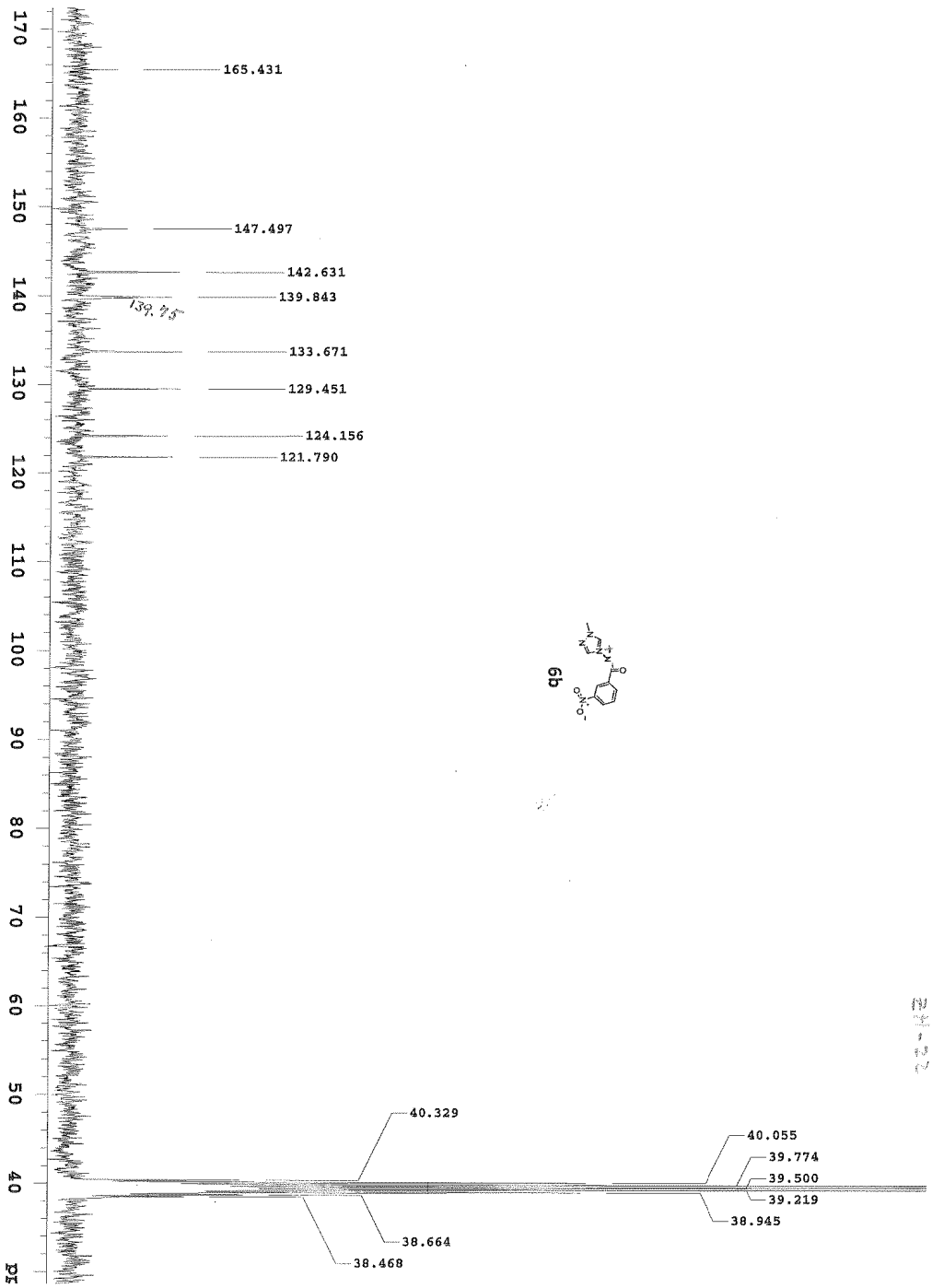
Instrument name : Instrument #1 Bline drift (fV): 4
Company Name : U of Florida Operator Ident. : KOU
Analysed : 08-01-14 11:23:26 Printed : 08-01-2014 11:33:29
Sample Ident. : 16 HZ-21 Filename : 288816
Sample Weight : 2.171 Calc.method: using 'K. Factors'

| No. (#) | Type (#) | Start (Sec) | End (Sec) | Ret Time (Sec) | Height (fV) | Area (fV*Sec) | Area % (%) | Name |
|---|---|---|---|---|---|---|---|---|
| 1 | FU | 63 | 103 | 83 | 9426.7 | 130375 | 14.69 | Nitrogen |
| 2 | FU | 103 | 291 | 113 | 41837.4 | 632321 | 71.25 | Carbon |
| 3 | RS | 291 | 598 | 308 | 2447.2 | 124802 | 14.06 | Hydrogen |
| | | | | | | 887497 | 100.00 | |

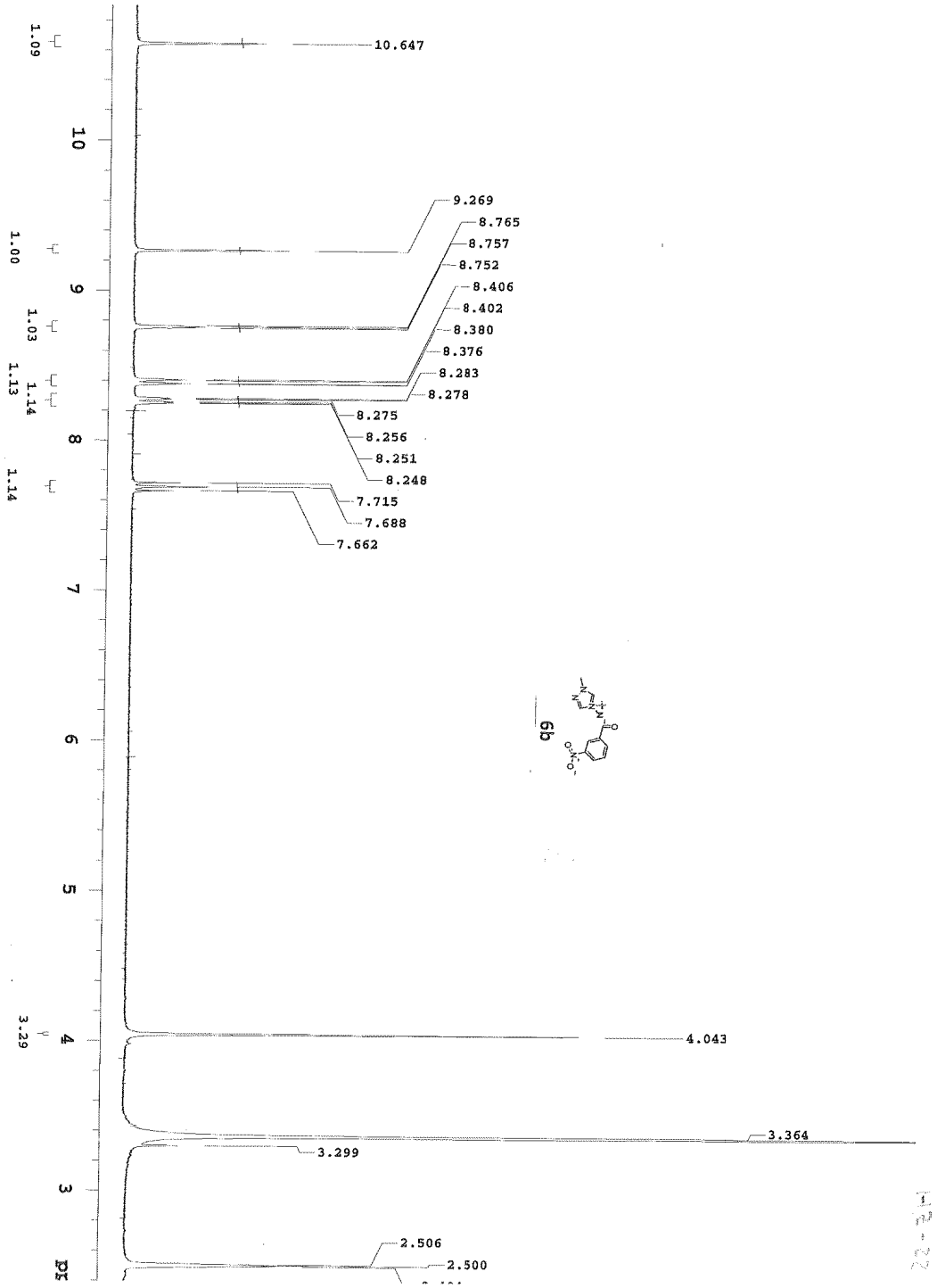
## EAGER 200 Unk Report

Instrument name : Instrument #1 Bline drift (fV): 4
Company Name : U of Florida Operator Ident. : KOU
Analysed : 08-01-14 11:23:26 Printed : 08-01-2014 11:33:29
Sample Ident. : 16 HZ-21 Filename : 288816
Sample Weight : 2.171 Calc.method: using 'K. Factors'

| Pk. (#) | Ret Time (Sec) | Area (fV*Sec) | Element % (%) | Area Ratio | Name |
|---|---|---|---|---|---|
| 1 | 83 | 130375 | 28.617 | .485002E+01 | Nitrogen |
| 2 | 113 | 632321 | 48.531 | .100000E+01 | Carbon |
| 3 | 308 | 124802 | 3.419 | .506661E+01 | Hydrogen |





## EAGER 200 Stripchart

Sample Ident. : 17 HZ-22 Filename :288817
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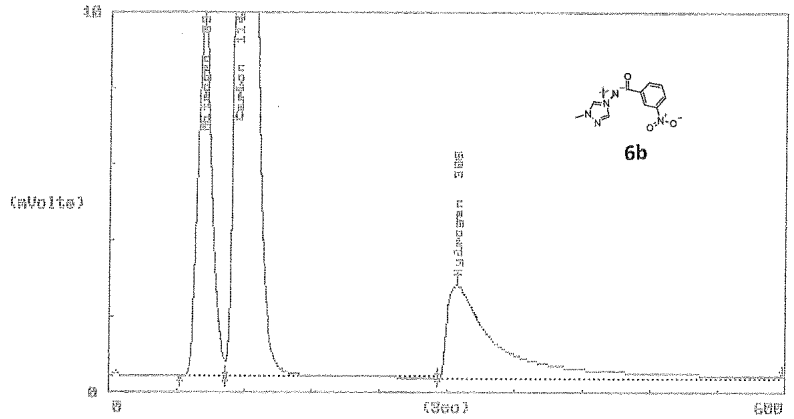



## EAGER 200 Peak Integration Report

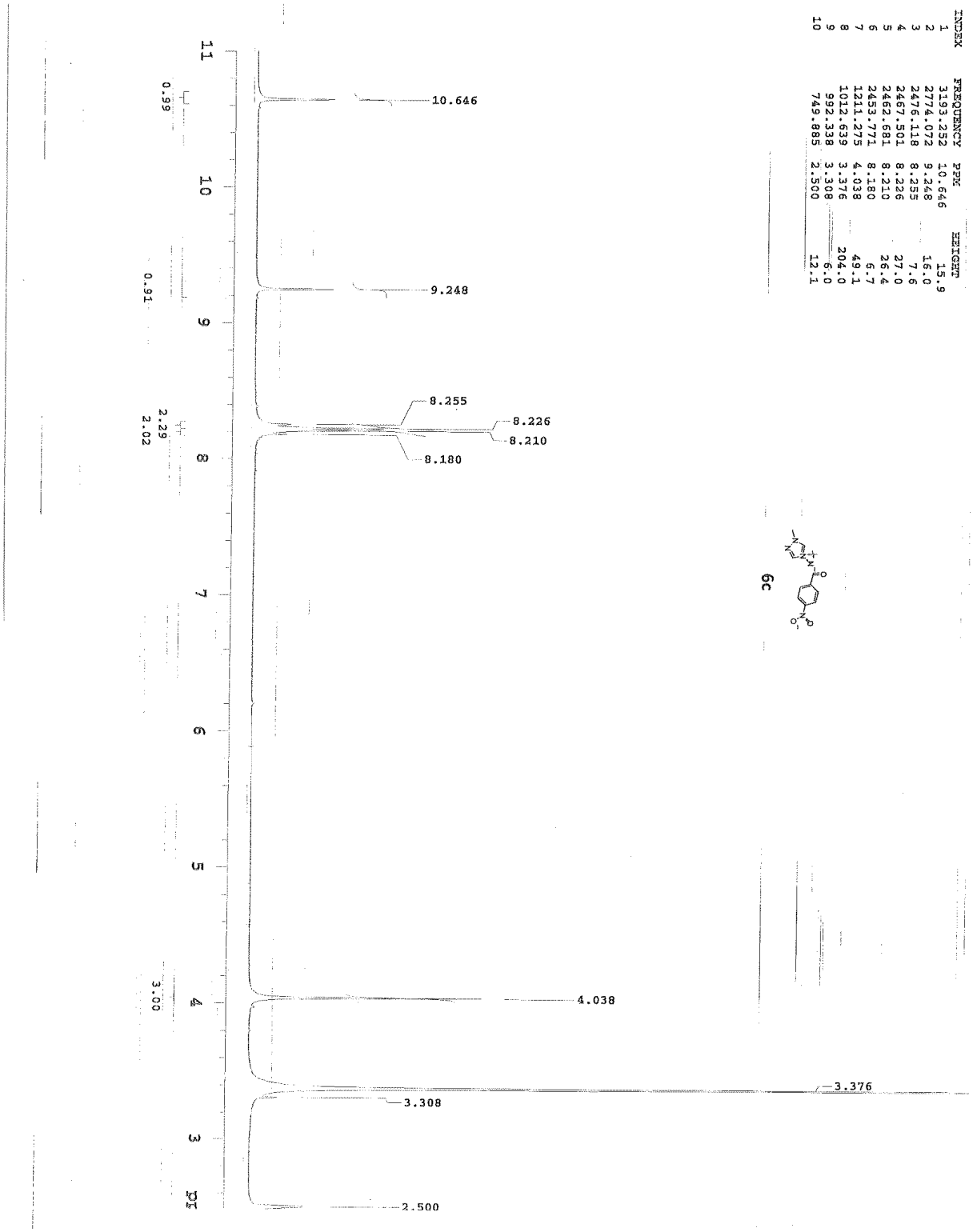
Instrument name : Instrument #1 Bline drift (fV): 1.7
Company Name : U of Florida Operator Ident. : KOU
Analysed : 08-01-14 11:33:29 Printed : 08-01-2014 11:43:32
Sample Ident. : 17 HZ-22 Filename : 288817
Sample Weight : 2.121 Calc.method: using 'K. Factors'

| No. (#) | Type (#) | Start (Sec) | End (Sec) | Ret Time (Sec) | Height (fV) | Area (fV*Sec) | Area % (%) | Name |
|---|---|---|---|---|---|---|---|---|
| 1 | FU | 63 | 103 | 83 | 9218.1 | 127729 | 14.69 | Nitrogen |
| 2 | FU | 103 | 292 | 114 | 40576.1 | 619958 | 71.32 | Carbon |
| 3 | RS | 292 | 598 | 309 | 2366.5 | 121519 | 13.98 | Hydrogen |
| | | | | | | 869207 | 100.00 | |

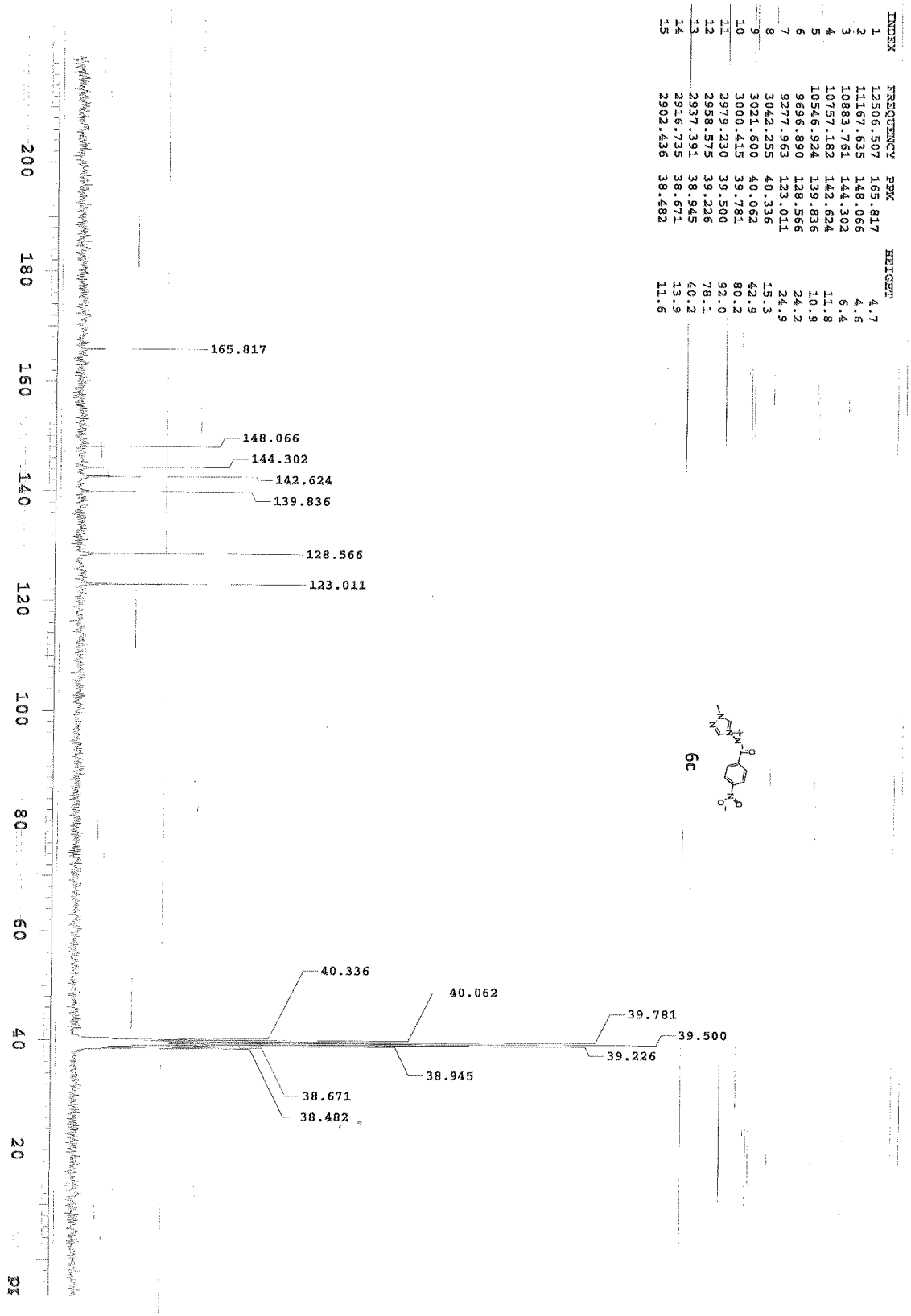
## EAGER 200 Unk Report

Instrument name : Instrument #1 Bline drift (fV): 1.7
Company Name : U of Florida Operator Ident. : KOU
Analysed : 08-01-14 11:33:29 Printed : 08-01-2014 11:43:32
Sample Ident. : 17 HZ-22 Filename : 288817
Sample Weight : 2.121 Calc.method: using 'K. Factors'

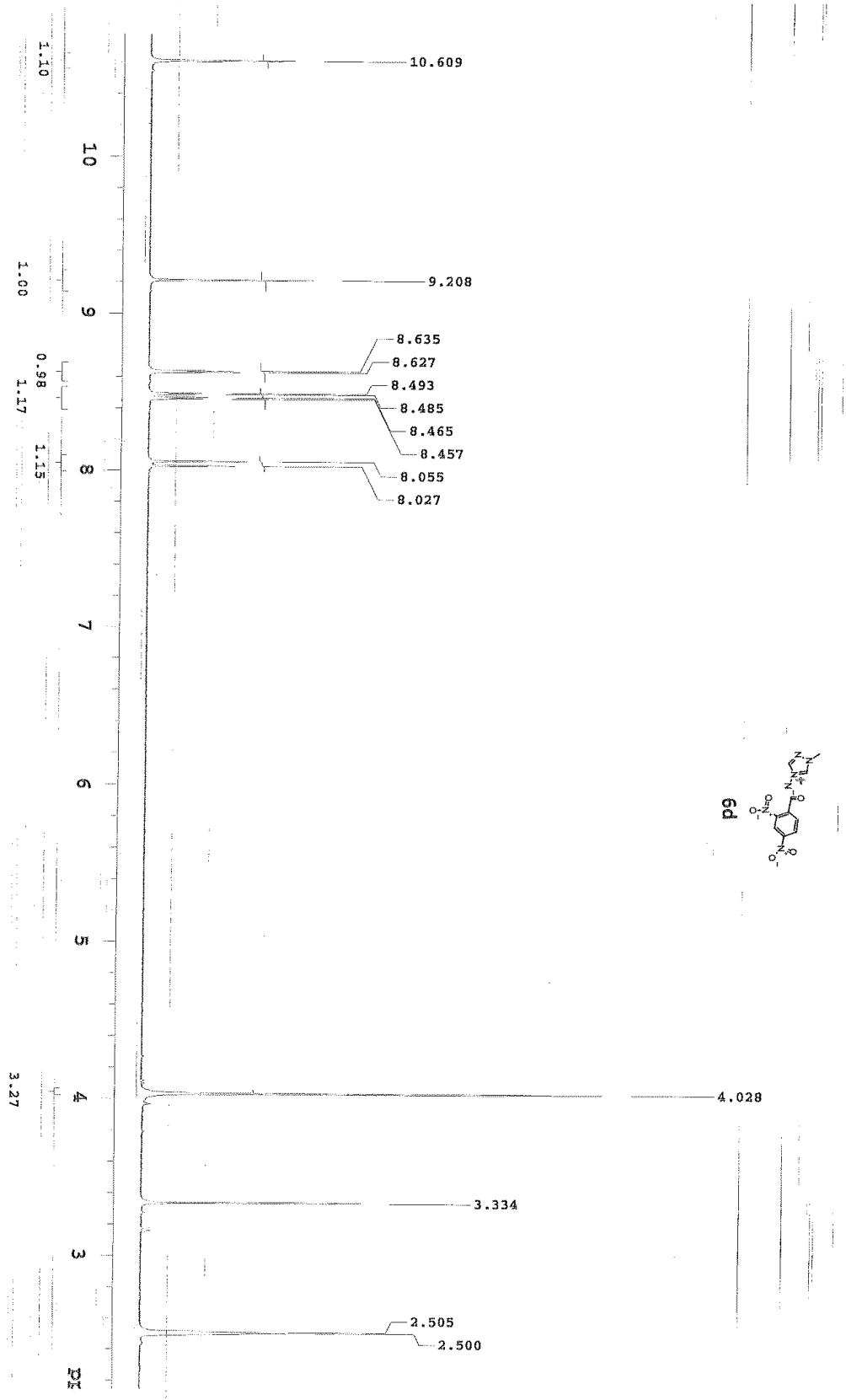
| Pk. (#) | Ret Time (Sec) | Area (fV*Sec) | Element % (%) | Area Ratio | Name |
|---|---|---|---|---|---|
| 1 | 83 | 127729 | 28.696 | .485369E+01 | Nitrogen |
| 2 | 114 | 619958 | 48.703 | .100000E+01 | Carbon |
| 3 | 309 | 121519 | 3.408 | .510172E+01 | Hydrogen |



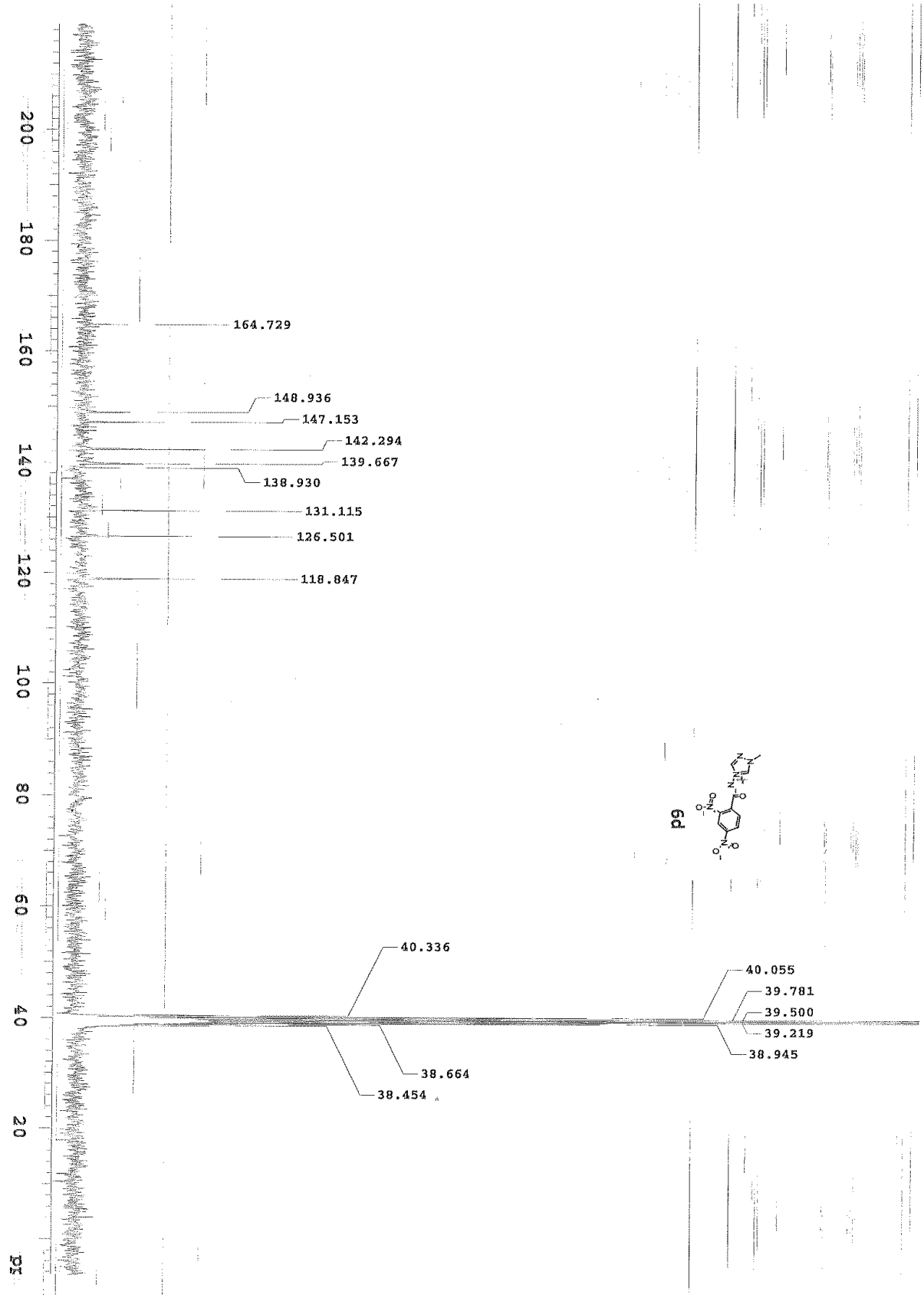

 







## EAGER 200 Stripchart

Sample Ident. : 15 HZ-15 Filename :288415
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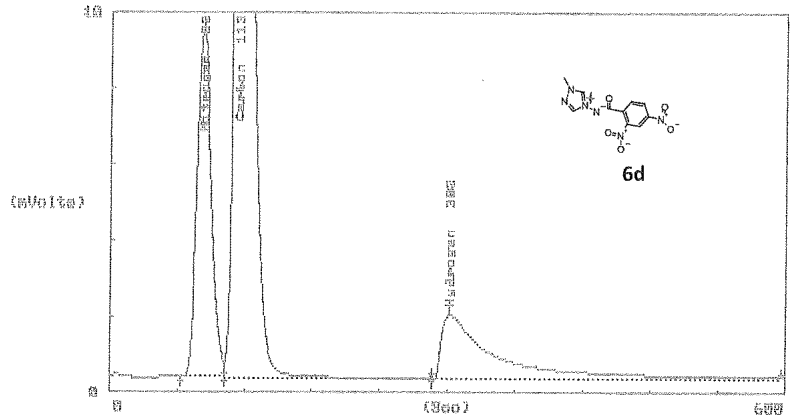


## EAGER 200 Peak Integration Report

Instrument name : Instrument #1 Bline drift (fV): 1.5
Company Name : U of Florida Operator Ident. : KOU
Analysed : 07-24-14 10:07:59 Printed : 07-24-2014 11:49:57
Sample Ident. : 15 HZ-15 Filename : 288415
Sample Weight : 2.107 Calc.method: using 'K. Factors'

| No. (#) | Type (#) | Start (Sec) | End (Sec) | Ret Time (Sec) | Height (fV) | Area (fV*Sec) | Area % (%) | Name |
|---|---|---|---|---|---|---|---|---|
| 1 | FU | 63 | 102 | 82 | 9064.3 | 125818 | 17.22 | Nitrogen |
| 2 | FU | 102 | 287 | 113 | 34636.6 | 516735 | 70.73 | Carbon |
| 3 | RS | 287 | 597 | 302 | 1638.8 | 87984 | 12.04 | Hydrogen |
| | | | | | | 730537 | 100.00 | |

## EAGER 200 Unk Report

Instrument name : Instrument #1 Bline drift (fV): 1.5
Company Name : U of Florida Operator Ident. : KOU
Analysed : 07-24-14 10:07:59 Printed : 07-24-2014 11:49:57
Sample Ident. : 15 HZ-15 Filename : 288415
Sample Weight : 2.107 Calc.method: using 'K. Factors'

| Pk. (#) | Ret Time (Sec) | Area (fV*Sec) | Element % (%) | Area Ratio | Name |
|---|---|---|---|---|---|
| 1 | 82 | 125818 | 28.343 | .410700E+01 | Nitrogen |
| 2 | 113 | 516735 | 41.471 | .100000E+01 | Carbon |
| 3 | 302 | 87984 | 2.529 | .587306E+01 | Hydrogen |