

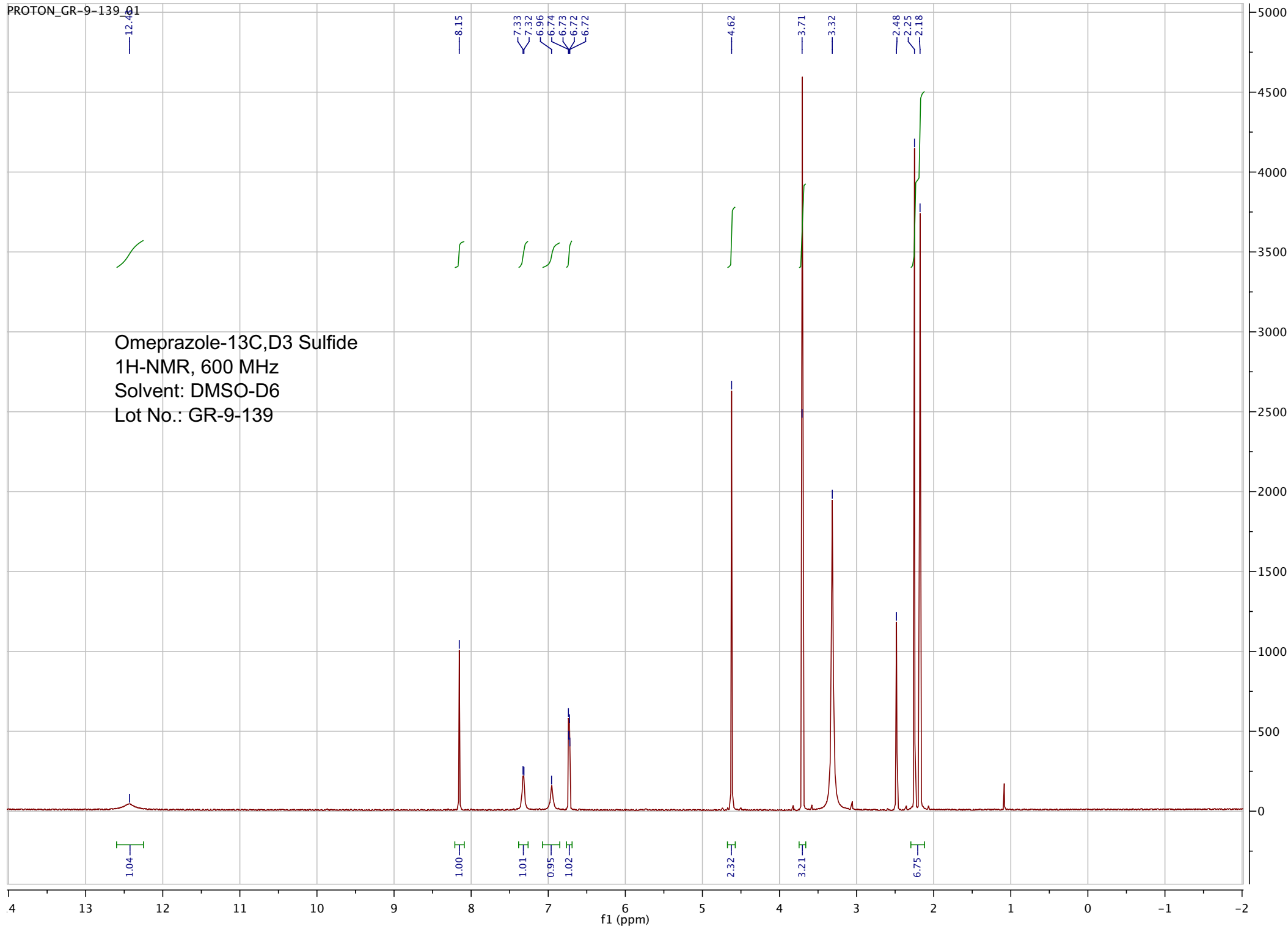
|                           |   |
|---------------------------|---|
| <b>Name:</b>              | <b>Omeprazole Sulfide-13C,D3</b>  |
| <b>Lot#:</b>              | GR-9-139  |
| <b>Test Date:</b>         | 01/12/2022 (re-test date: 01/12/2027)   |
| <b>CAS No.:</b>           | 73590-85-9 (unlabeled)  |
| <b>MF:</b>                | C <sub>16</sub> <sup>13</sup> CH <sub>16</sub> D <sub>3</sub> N <sub>3</sub> O <sub>2</sub> S |
| <b>MW:</b>                | 333.43  |
| <b>Appearance:</b>        | Beige solid   |
| <b>Purity:</b>            | 99.3% by HPLC (average of two sample preparations); 99% atom 13C,<br>99% atom D               |
| <b><sup>1</sup>H-NMR:</b> | Conforms  |
| <b>MS-ESI (+)</b>         | Conforms (shows peak at m/z = 334.16 [M+H] <sup>+</sup> )                                     |
| <b>Storage</b>            | Long term store at - 18° C in a dry place away from direct sunlight                           |

Approved by:

Date: 01/12/2022



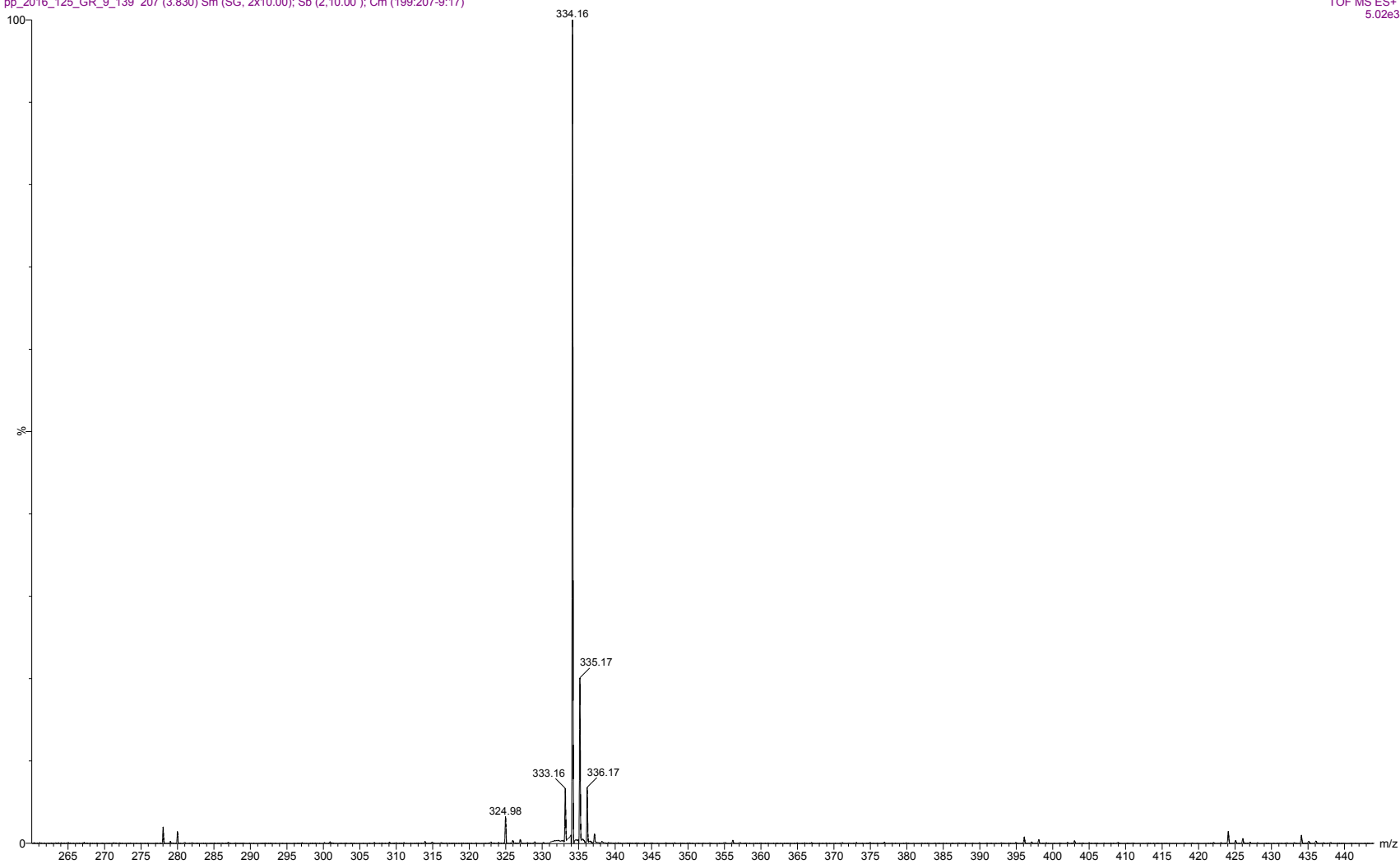
Viorica Rusu, QC/QA Manager



pp\_2016\_125\_GR\_9\_139 207 (3.830) Sm (SG, 2x10.00); Sb (2,10.00 ); Cm (199:207-9:17)

7.0000000

TOF MS ES+  
5.02e3

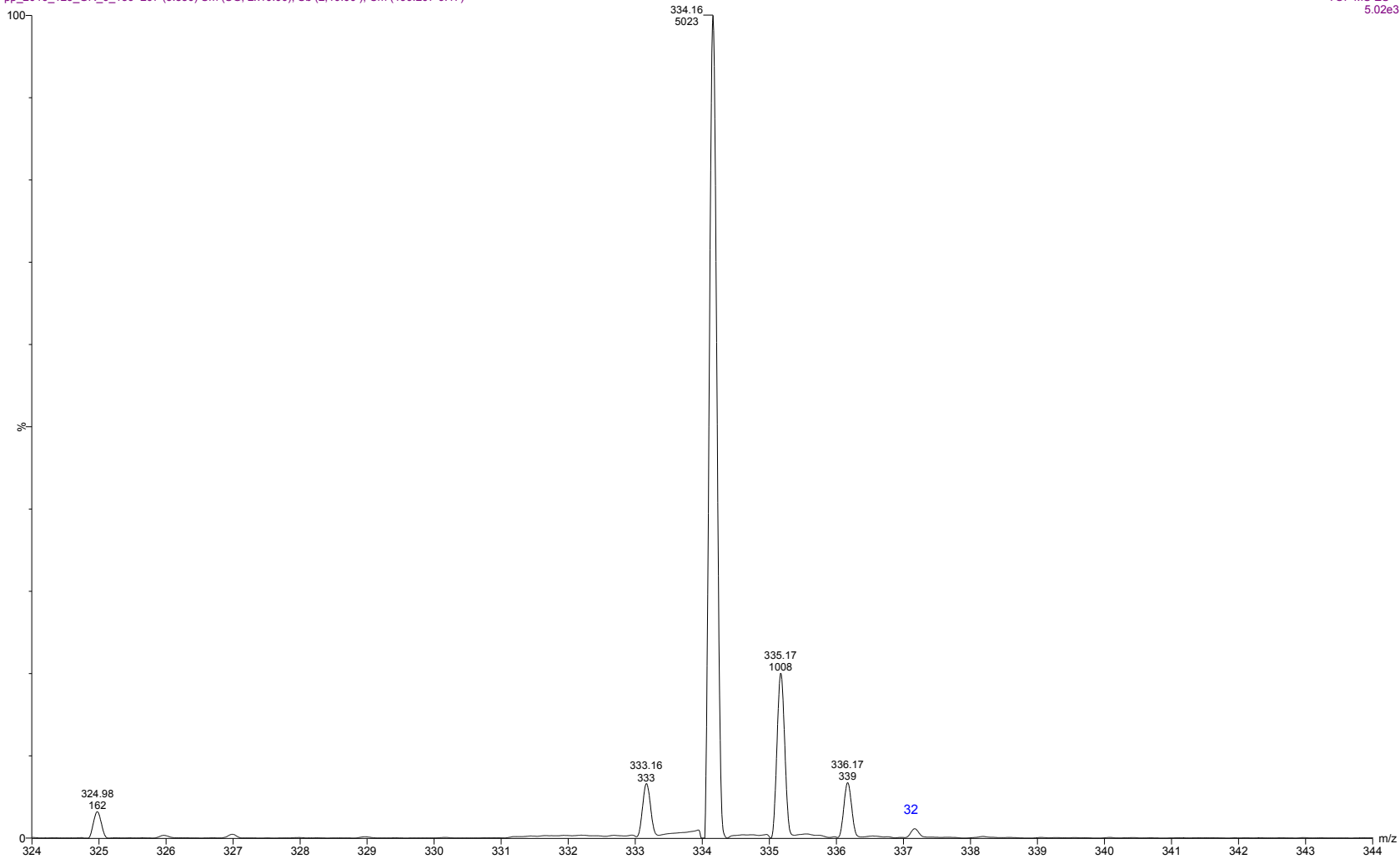


ESI-MS spectrum for sample GR-9-139. Shows monoisotopic  $[M+H]^+$  mass.

pp\_2016\_125\_GR\_9\_139 207 (3.830) Sm (SG, 2x10.00); Sb (2,10.00 ); Cm (199:207-9:17)

7.0000000

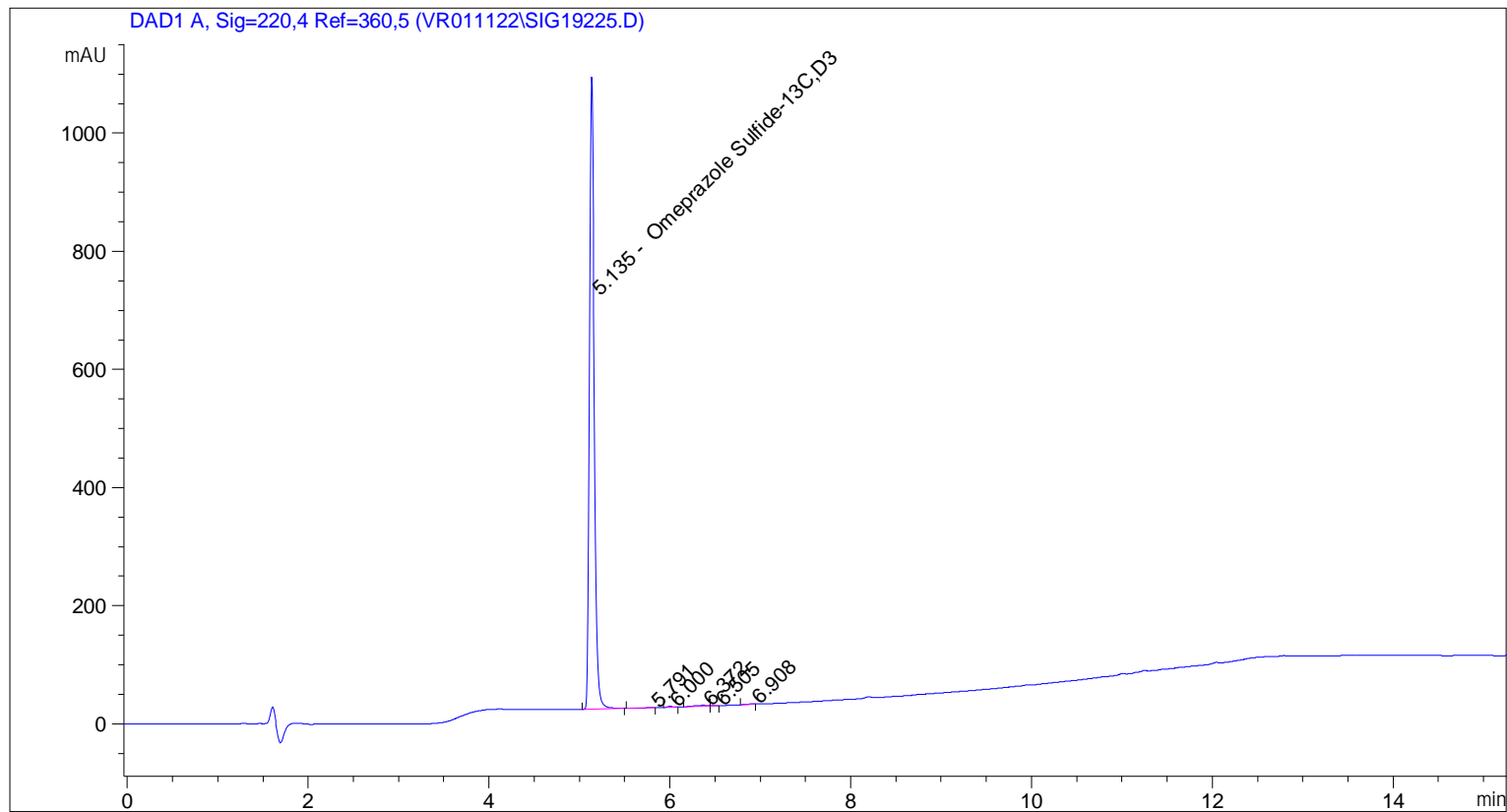
TOF MS ES+  
5.02e3



Expansion of above with intensity labels.

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=====
Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 84
Injection Date  : 1/12/2022 2:10:32 PM
                                           Inj Volume : 5.0 µl
Acq. Method     : C:\CHEM32\1\METHODS\VR011222_139.M
Last changed    : 1/12/2022 2:09:33 PM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR011222_139PM.M
Last changed    : 1/12/2022 3:07:25 PM by vrusu
  
```



=====  
 Area Percent Report  
 =====

```

Sorted By       : Signal
Calib. Data Modified : 1/12/2022 3:06:56 PM
Multiplier:     : 1.0000
Dilution:       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
  
```

Signal 1: DAD1 A, Sig=220,4 Ref=360,5

| Peak # | RetTime [min] | Type | Width [min] | Area [mAU*s] | Area %  | Name                      |
|--------|---------------|------|-------------|--------------|---------|---------------------------|
| 1      | 5.135         | BB   | 0.0581      | 4055.05420   | 99.3430 | Omeprazole Sulfide-13C,D3 |
| 2      | 5.791         | BB   | 0.1298      | 4.34714      | 0.1065  | ?                         |
| 3      | 6.000         | BB   | 0.0646      | 6.01944      | 0.1475  | ?                         |
| 4      | 6.372         | BV   | 0.1210      | 13.48080     | 0.3303  | ?                         |
| 5      | 6.505         | VB   | 0.0529      | 1.15671      | 0.0283  | ?                         |
| 6      | 6.908         | BB   | 0.0530      | 1.81306      | 0.0444  | ?                         |

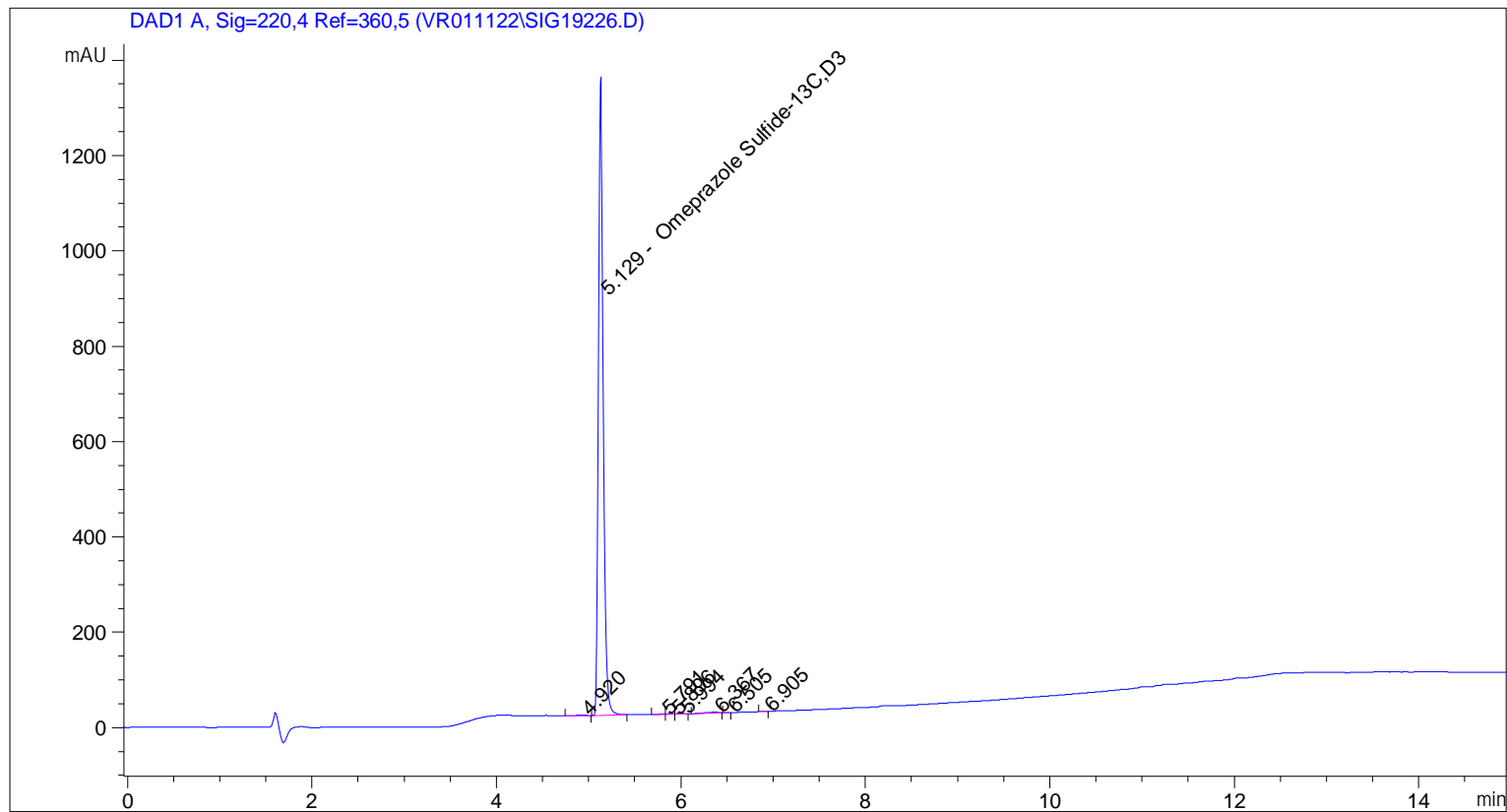
Totals : 4081.87135

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\*\*\* End of Report \*\*\*

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=====
Acq. Operator   : vrusu
Acq. Instrument : Instrument 1                Location : Vial 85
Injection Date  : 1/12/2022 2:30:57 PM
                                           Inj Volume : 5.0 µl
Acq. Method     : C:\CHEM32\1\METHODS\VR011222_139.M
Last changed    : 1/12/2022 2:29:19 PM by vrusu
Analysis Method : C:\CHEM32\1\METHODS\VR011222_139PM.M
Last changed    : 1/12/2022 3:07:25 PM by vrusu
  
```



Area Percent Report

```

Sorted By      : Signal
Calib. Data Modified : 1/12/2022 3:06:56 PM
Multiplier:    : 1.0000
Dilution:     : 1.0000
Use Multiplier & Dilution Factor with ISTDs
  
```

Signal 1: DAD1 A, Sig=220,4 Ref=360,5

| Peak # | RetTime [min] | Type | Width [min] | Area [mAU*s] | Area %  | Name                      |
|--------|---------------|------|-------------|--------------|---------|---------------------------|
| 1      | 4.920         | BB   | 0.1275      | 3.16578      | 0.0606  | ?                         |
| 2      | 5.129         | BB   | 0.0610      | 5185.71924   | 99.3053 | Omeprazole Sulfide-13C,D3 |
| 3      | 5.791         | BV   | 0.0619      | 2.71809      | 0.0521  | ?                         |
| 4      | 5.896         | VV   | 0.0653      | 2.66272      | 0.0510  | ?                         |
| 5      | 5.994         | VB   | 0.0633      | 7.59086      | 0.1454  | ?                         |
| 6      | 6.367         | BB   | 0.1155      | 16.61922     | 0.3183  | ?                         |
| 7      | 6.505         | BB   | 0.0508      | 1.33064      | 0.0255  | ?                         |
| 8      | 6.905         | BB   | 0.0496      | 2.19135      | 0.0420  | ?                         |

Sample Name: GR-9-139 spl-2

| Peak #   | RetTime [min] | Type | Width [min] | Area [mAU*s] | Area % | Name |
|----------|---------------|------|-------------|--------------|--------|------|
| Totals : |               |      |             | 5221.99789   |        |      |

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\*\*\* End of Report \*\*\*