

Synthesis of dibenzo cyclohepta[1,2-a]naphthalene derivatives from phenylacetaldehyde and alkynyl benzyl alcohols via sequential electrophilic addition and double Friedel-Crafts reactions

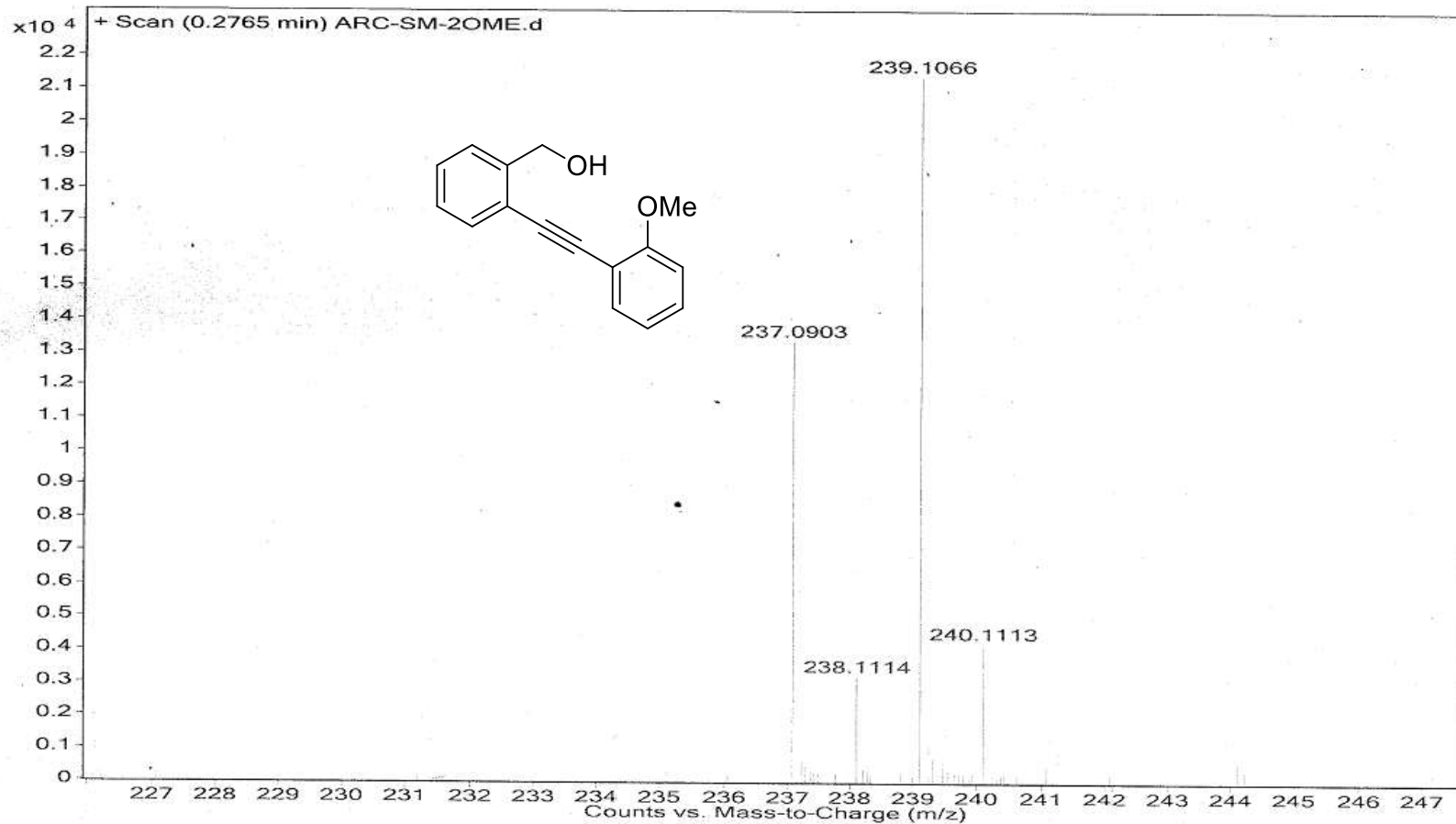
Archana K. Sahu, Ramanjaneyulu Unnava, Bipin K. Behera and Anil K. Saikia

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| 1. HRMS spectra of all new compounds | S1-S27 |
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HRMS Spectrum of 1c

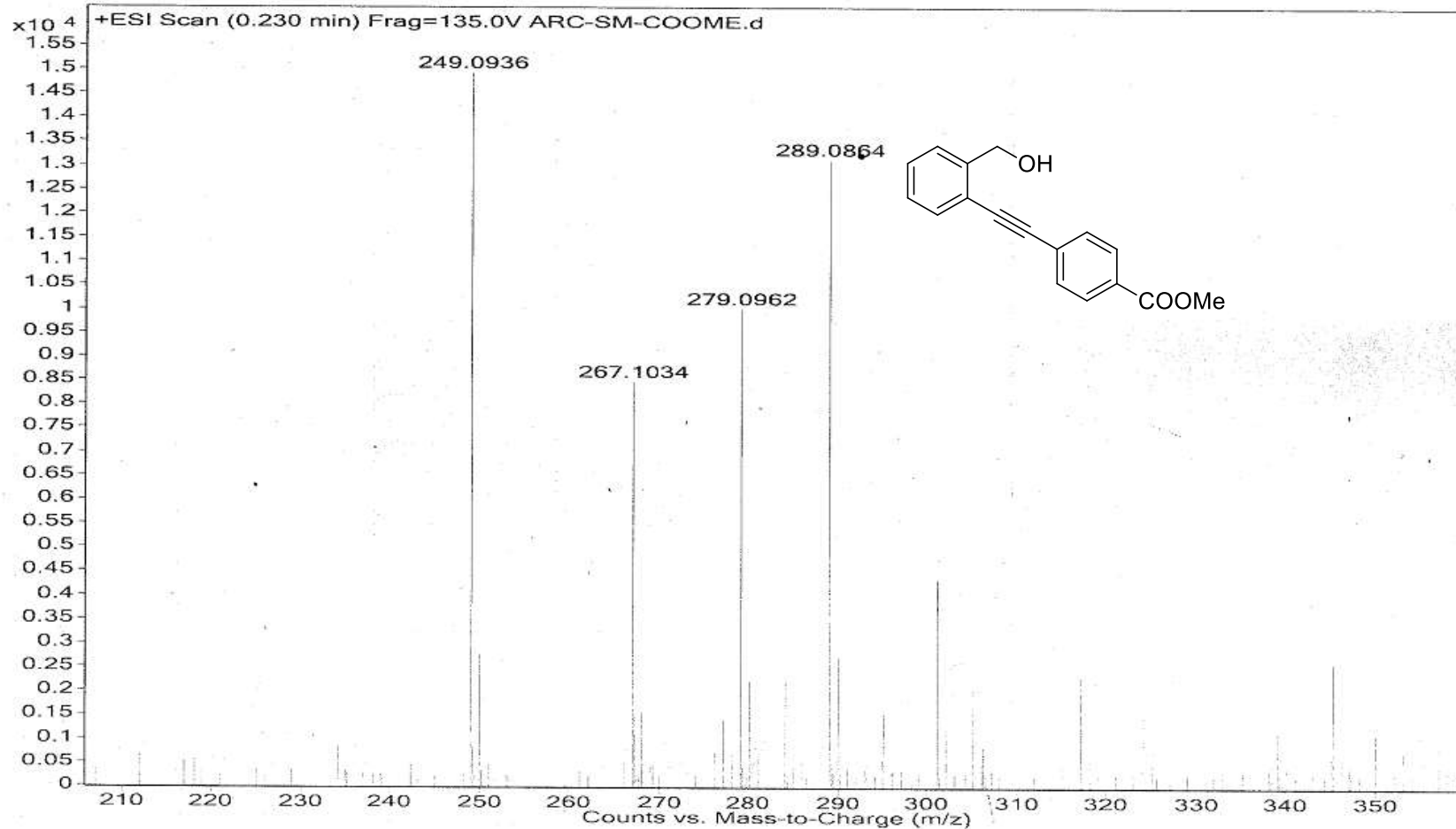
| | | | | | | | |
|----------------------|---------------|--------------------|--------|------------------------|--------|-------------------------------|-----------------------|
| Sample Name | ARC-SM-2OME | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | All Ions Missed |
| Data Filename | ARC-SM-2OME.d | ACQ Method | | Comment | | Acquired Time | 3/28/2018 11:42:42 AM |



1d

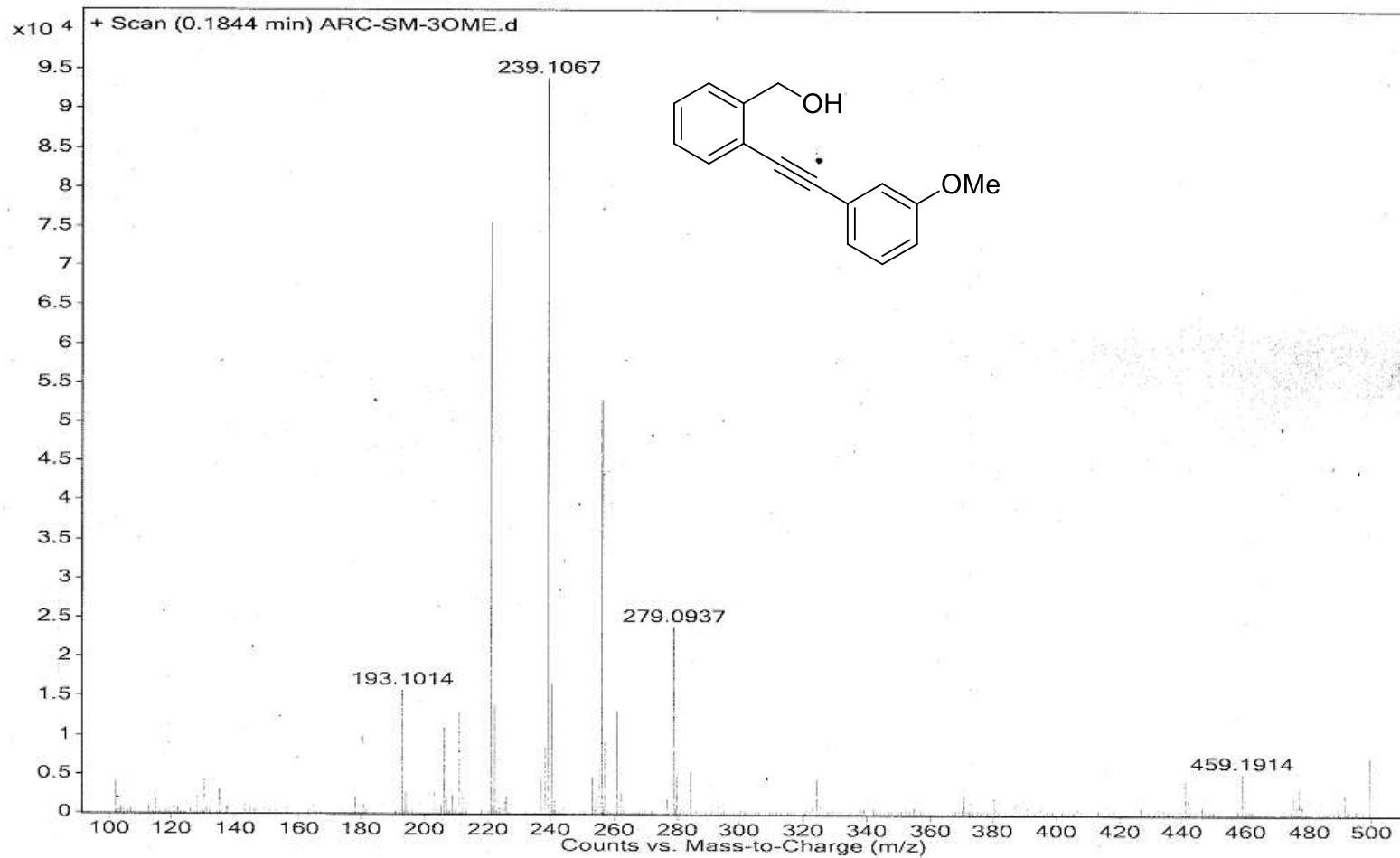
HRMS Spectrum of 1e

| | | | | | | | |
|---------------|----------------|-------------|--------|-----------------|--------|------------------------|----------------------|
| Sample Name | ARC-SM-COOME | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | Success |
| Data Filename | ARC-SM-COOME.d | ACQ Method | | Comment | | Acquired Time | 4/16/2018 4:23:45 PM |



HRMS Spectrum of 1f

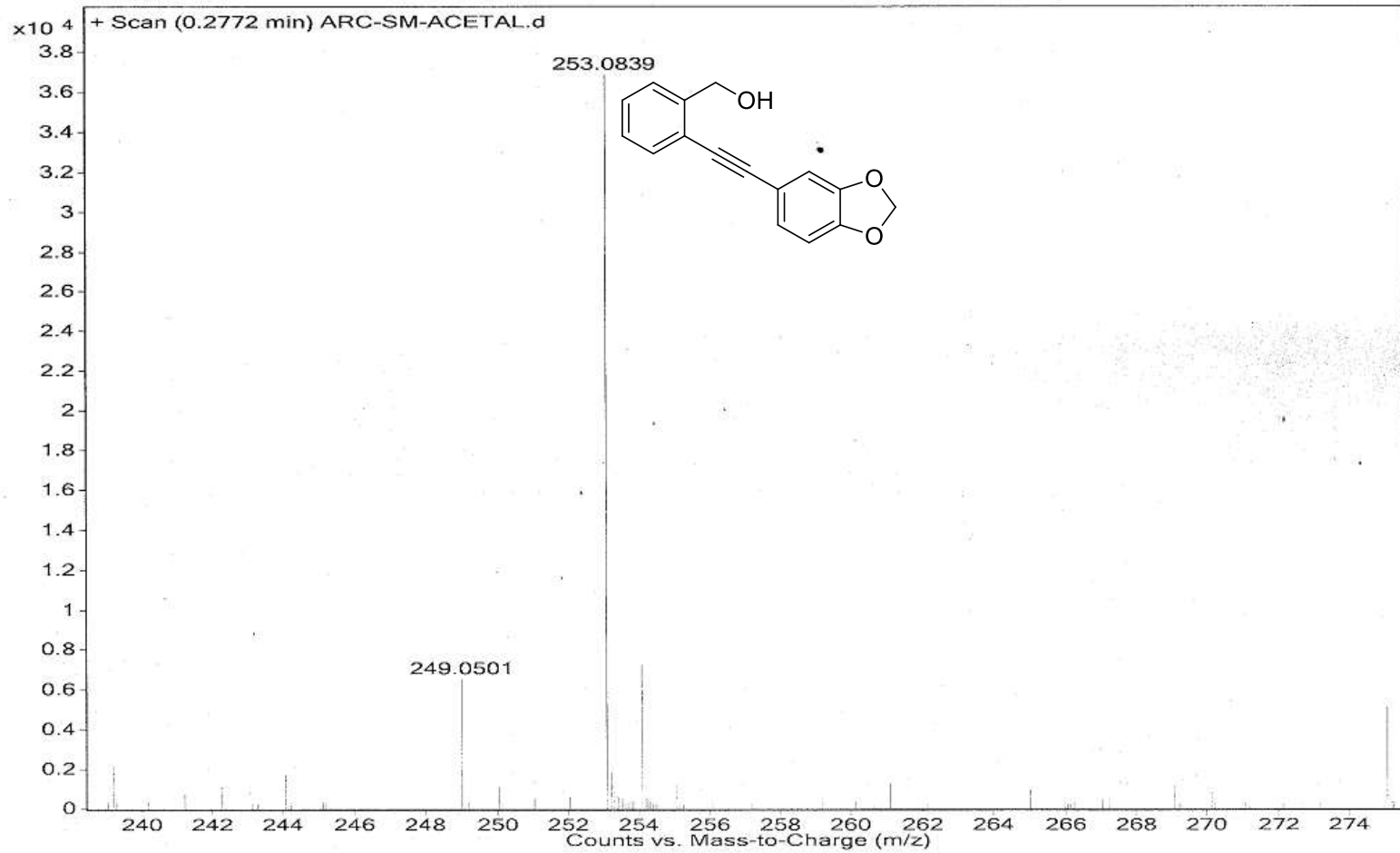
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|---------------|---------------|-------------|--------|-----------------|--------|------------------------|-----------------------|
| Sample Name | ARC-SM-3OME | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | All Ions Missed |
| Data Filename | ARC-SM-3OME.d | ACQ Method | | Comment | | Acquired Time | 3/28/2018 11:44:29 AM |



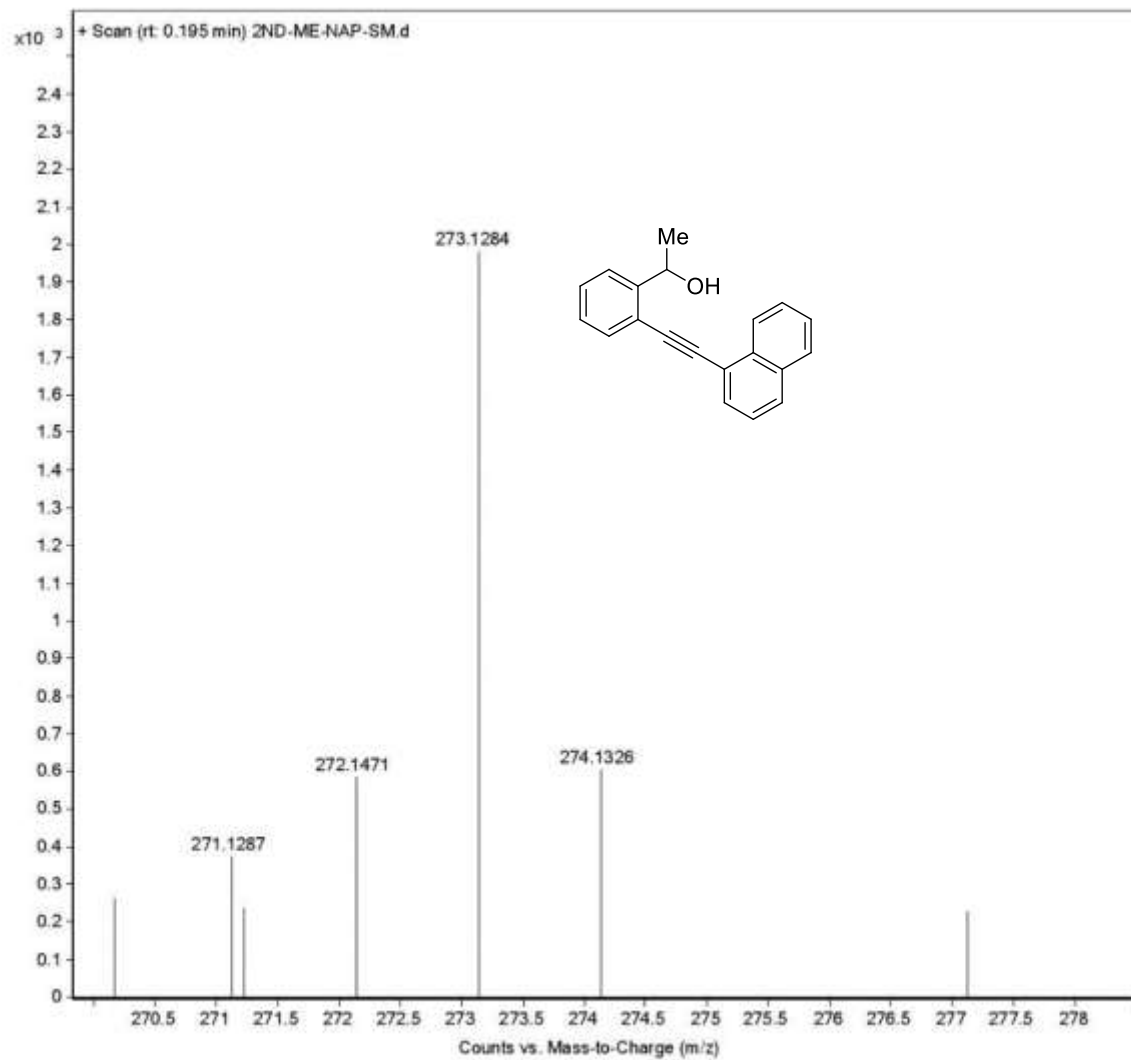
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HRMS Spectrum of 1g

| | | | | | | | |
|---------------|-----------------|-------------|--------|-----------------|--------|------------------------|----------------------|
| Sample Name | ARC-SM-ACETAL | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | Success |
| Data Filename | ARC-SM-ACETAL.d | ACQ Method | | Comment | | Acquired Time | 4/12/2018 4:21:23 PM |

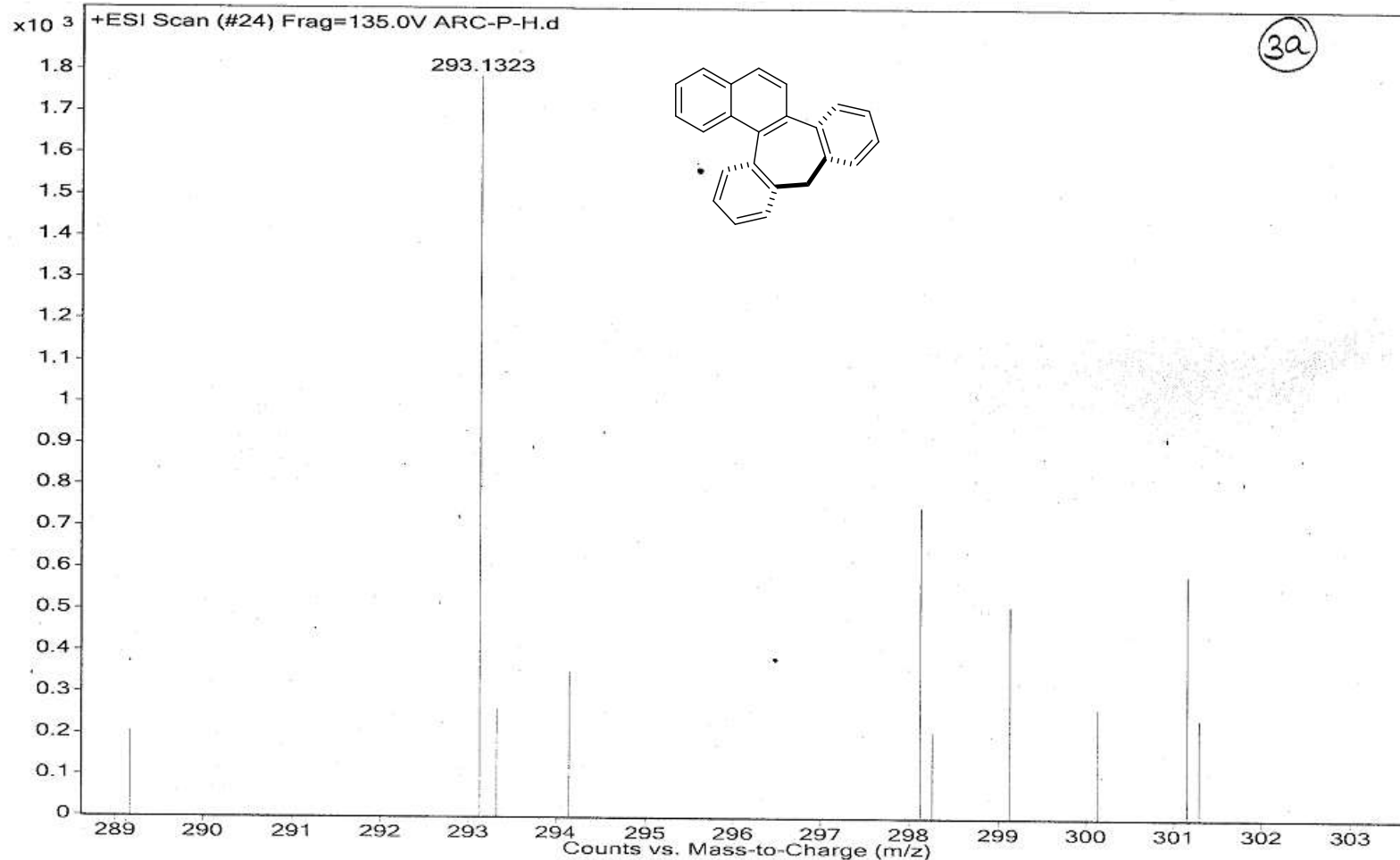


HRMS Spectrum of 1n



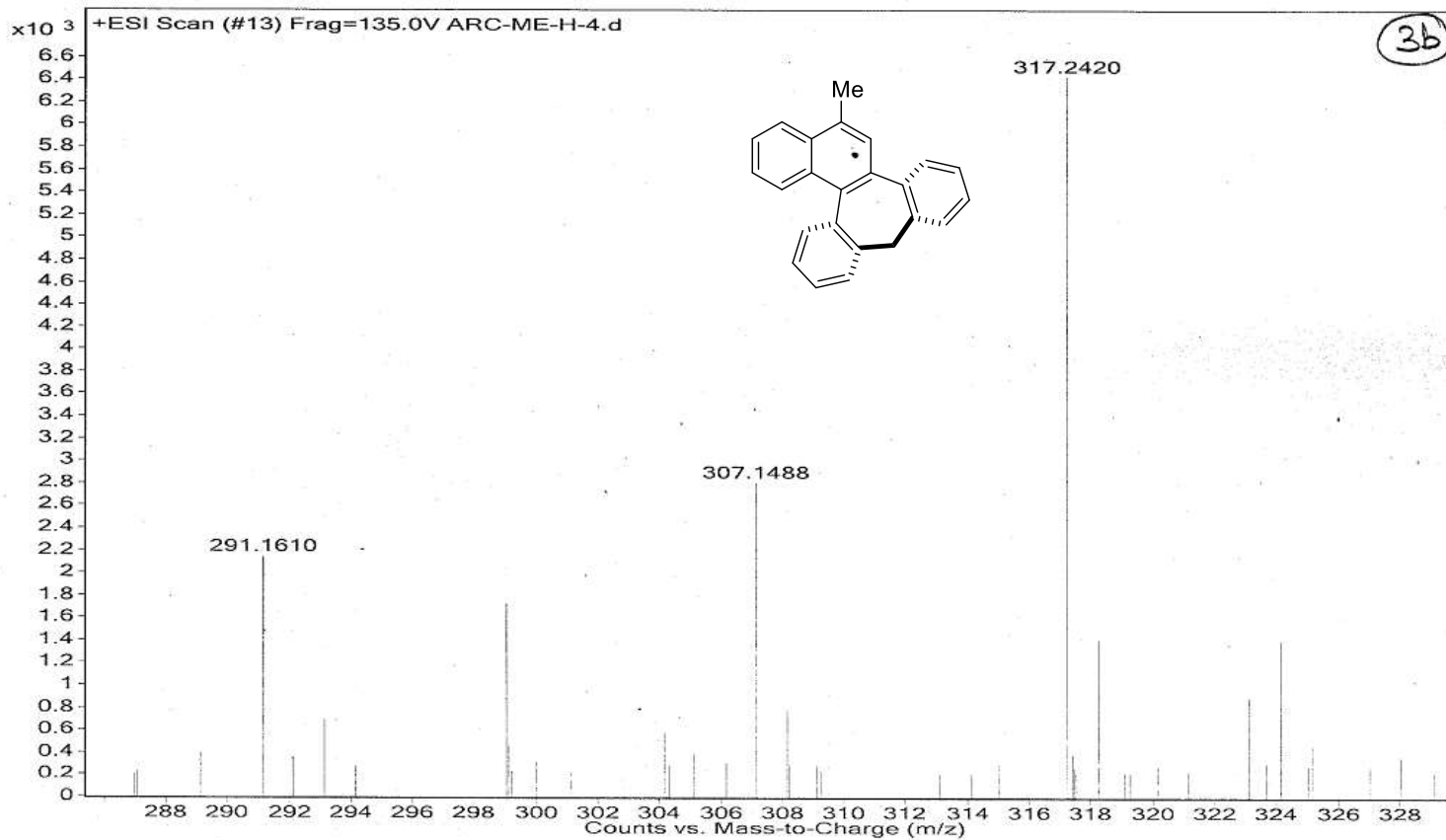
HRMS Spectrum of 3a

| | | | | | | | |
|---------------|-----------|-------------|--------|-----------------|--------|------------------------|-------------------|
| Sample Name | ARC-P-H | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | All Ions Missed |
| Data Filename | ARC-P-H.d | ACQ Method | | Comment | | Acquired Time | 3/22/2018 10:33:5 |



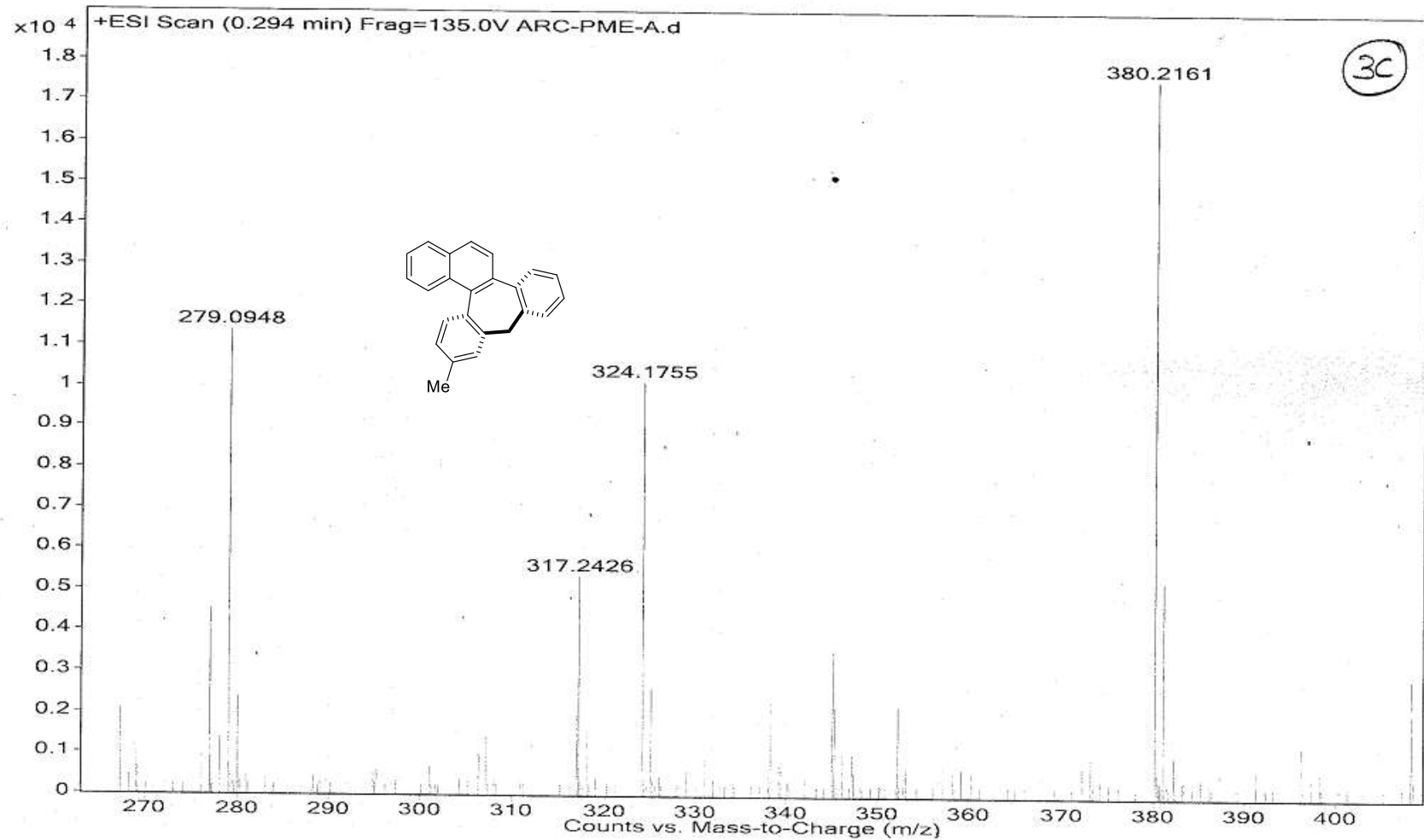
HRMS Spectrum of 3b

| | | | | | | | |
|---------------|--------------|-------------|--------|-----------------|--------|------------------------|-----------------------|
| Sample Name | ARC-ME-H-4 | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | All Ions Missed |
| Data Filename | ARC-ME-H-4.d | ACQ Method | | Comment | | Acquired Time | 3/26/2018 10:17:45 AM |



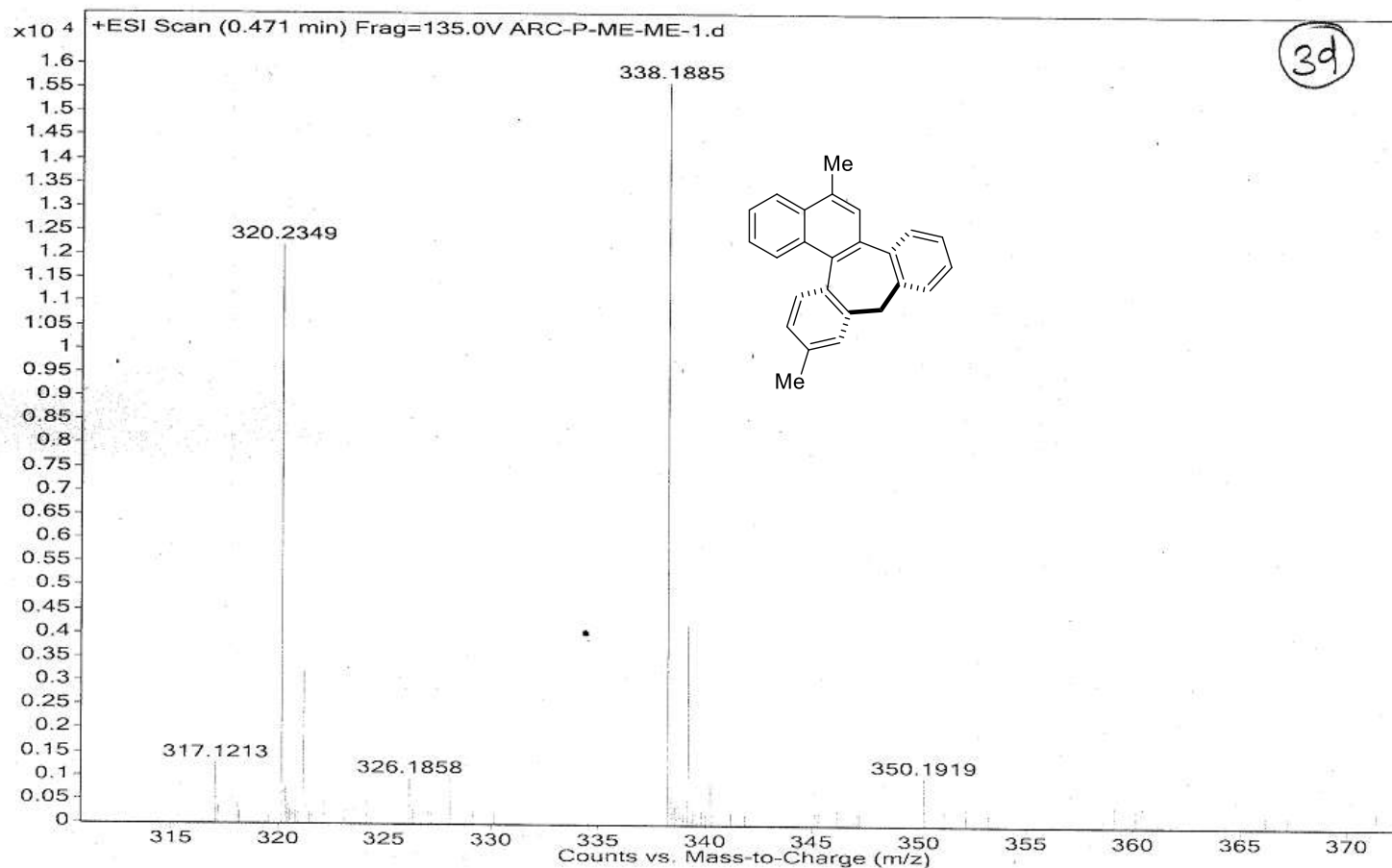
HRMS Spectrum of 3c

| | | | | | | | |
|---------------|-------------|-------------|--------|-----------------|--------|------------------------|----------------------|
| Sample Name | ARC-PME-A | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | Success |
| Data Filename | ARC-PME-A.d | ACQ Method | | Comment | | Acquired Time | 4/16/2018 4:20:08 PM |



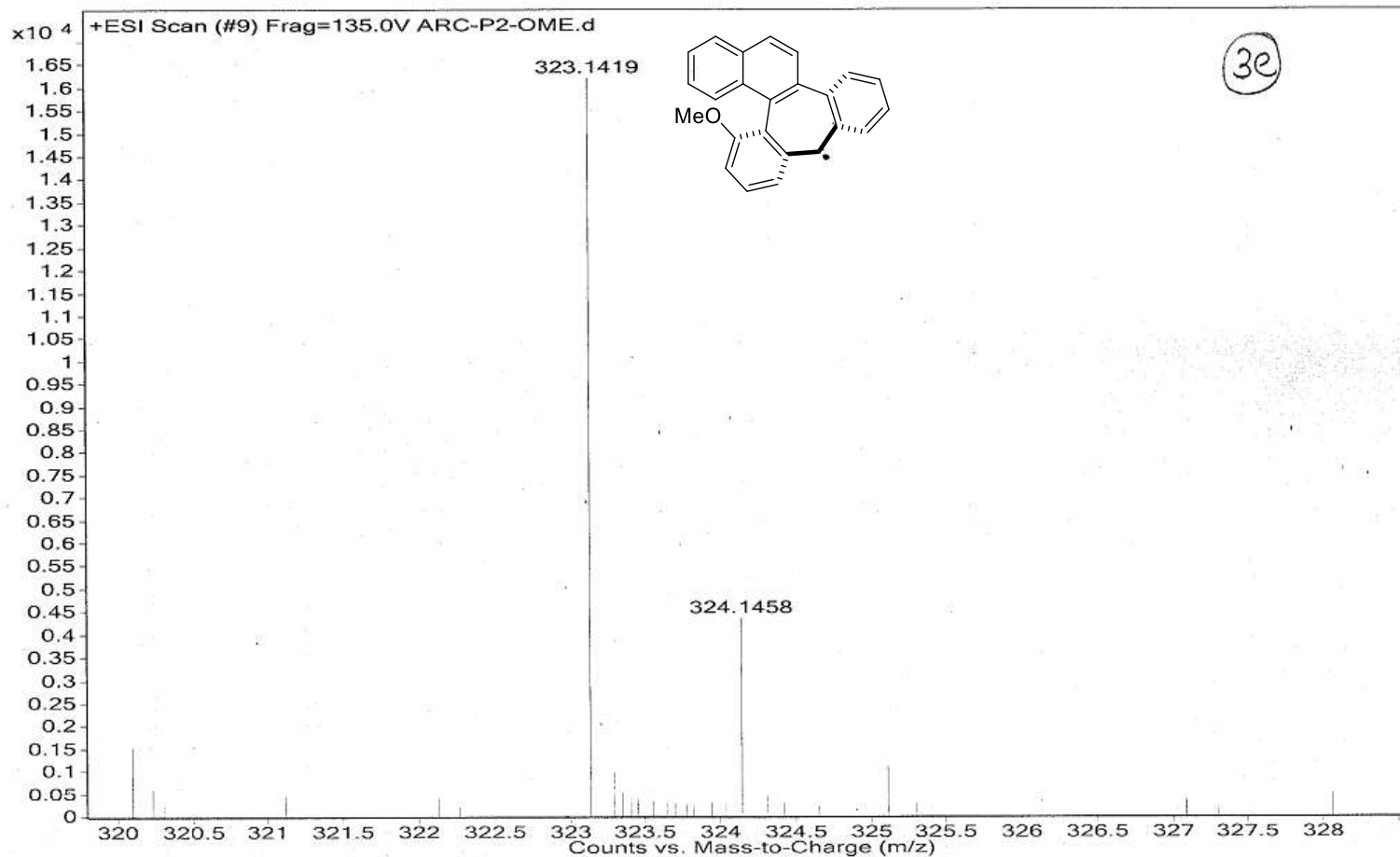
HRMS Spectrum of 3d

| | | | | | | | |
|---------------|-----------------|-------------|--------|-----------------|--------|------------------------|-----------------------|
| Sample Name | ARC-P-ME-ME-1 | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | Some Ions Missed |
| Data Filename | ARC-P-ME-ME-1.d | ACQ Method | | Comment | | Acquired Time | 3/22/2018 10:48:23 AM |



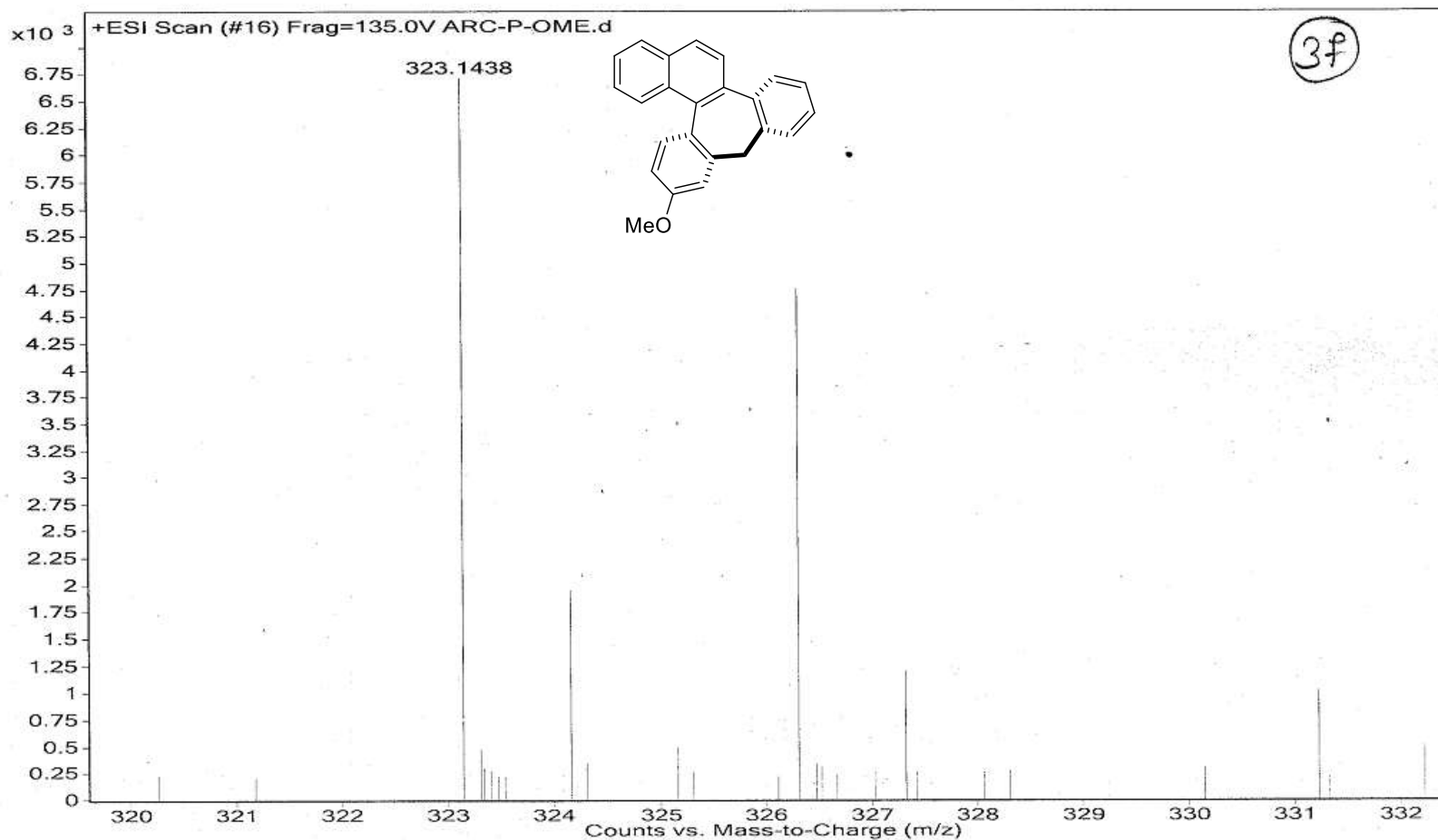
HRMS Spectrum of 3e

| | | | | | | | |
|---------------|--------------|-------------|--------|-----------------|--------|------------------------|-----------------------|
| Sample Name | ARC-P2-OME | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | All Ions Missed |
| Data Filename | ARC-P2-OME.d | ACQ Method | | Comment | | Acquired Time | 3/22/2018 10:39:30 AM |



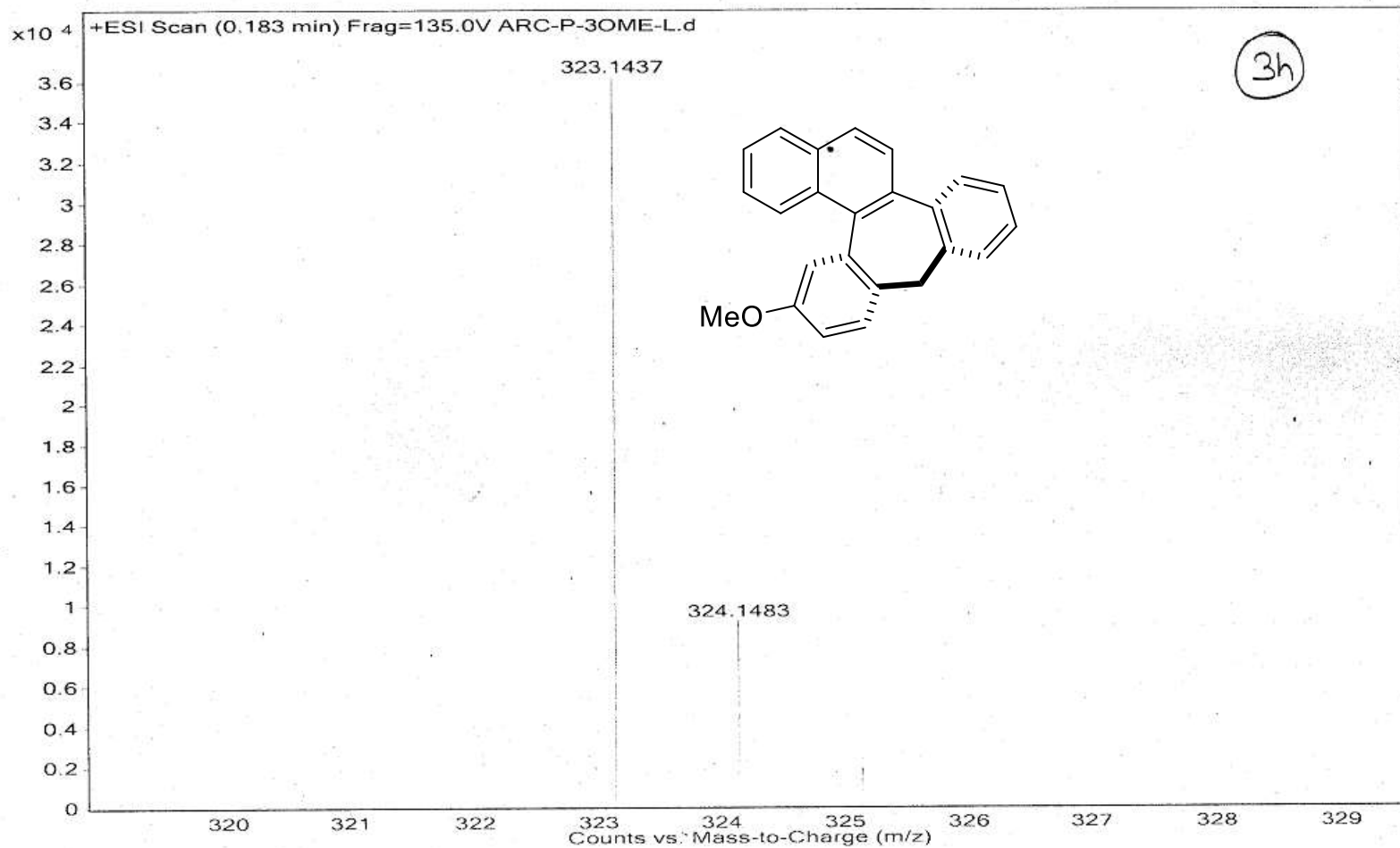
HRMS Spectrum of 3f

| | | | | | | | |
|---------------|-------------|-------------|--------|-----------------|--------|------------------------|-----------------------|
| Sample Name | ARC-P-OME | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | All Ions Missed |
| Data Filename | ARC-P-OME.d | ACQ Method | | Comment | | Acquired Time | 3/22/2018 10:37:55 AM |



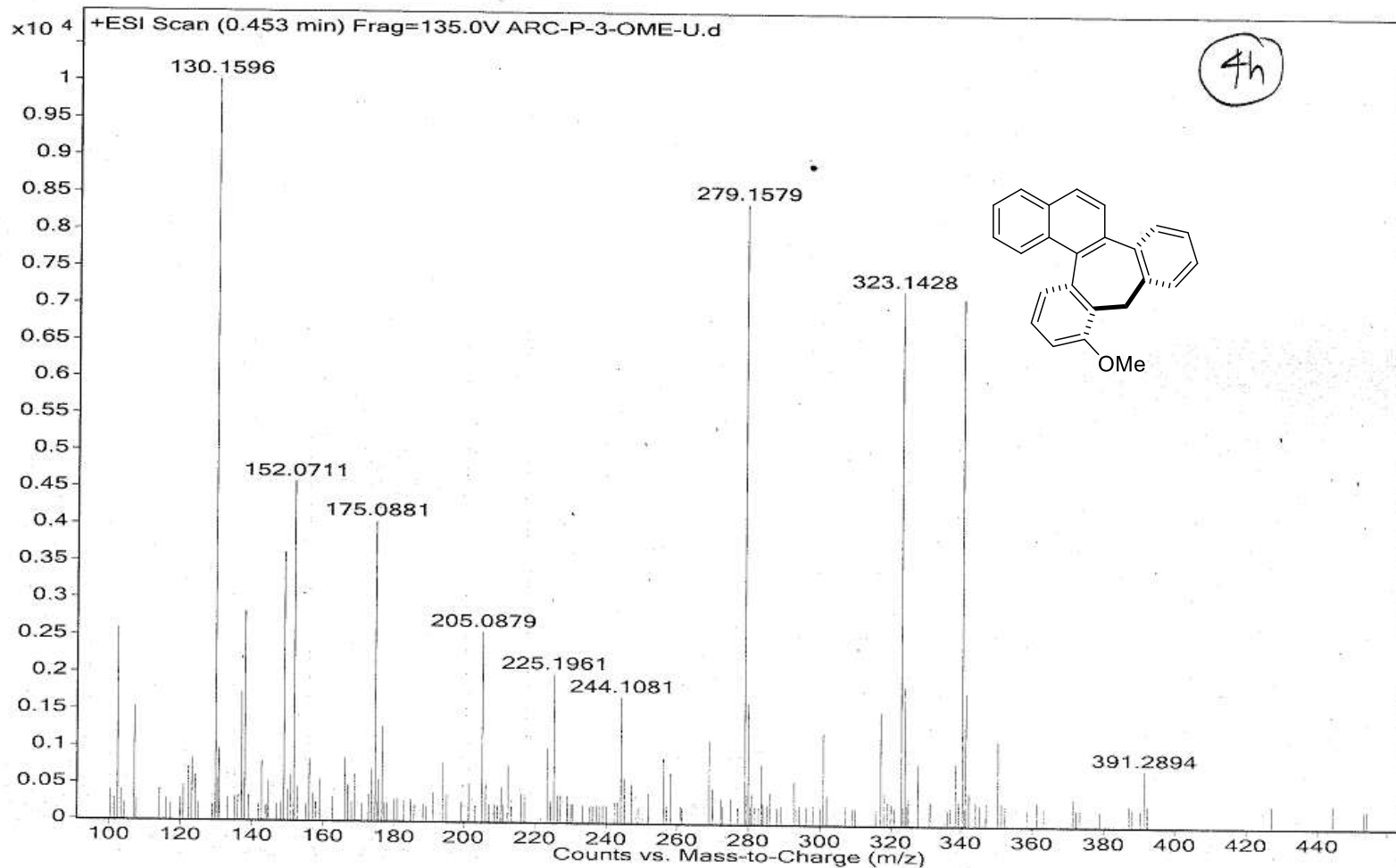
HRMS Spectrum of 3h

| | | | | | | | |
|---------------|----------------|-------------|--------|-----------------|--------|------------------------|----------------------|
| Sample Name | ARC-P-3OME-L | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | Success |
| Data Filename | ARC-P-3OME-L.d | ACQ Method | | Comment | | Acquired Time | 5/2/2018 11:18:13 AM |



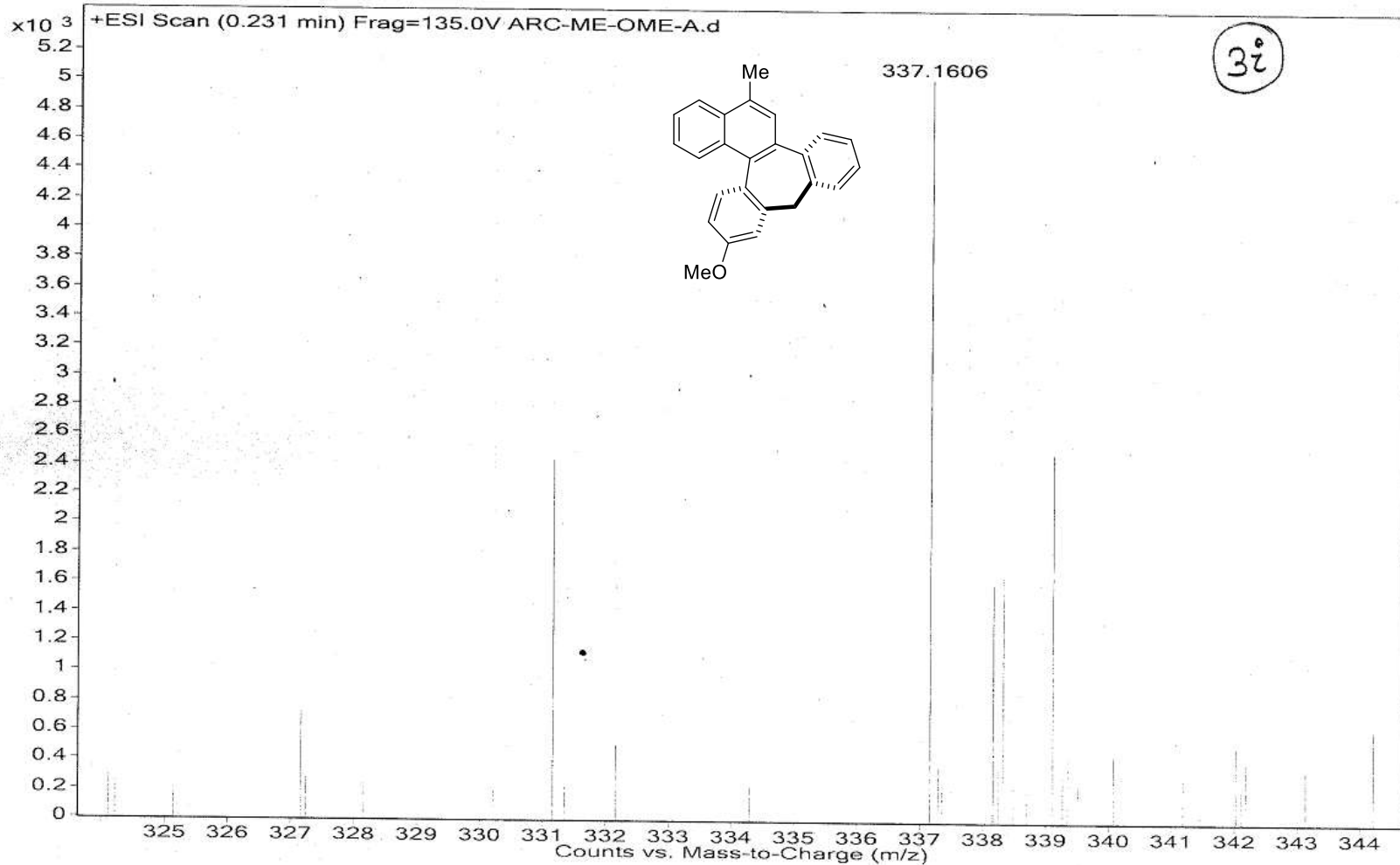
HRMS Spectrum of 4h

| | | | | | | | |
|---------------|-----------------|-------------|--------|-----------------|--------|------------------------|-----------------------|
| Sample Name | ARC-P-3-OME-U | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | All Ions Missed |
| Data Filename | ARC-P-3-OME-U.d | ACQ Method | | Comment | | Acquired Time | 3/22/2018 10:46:55 AM |



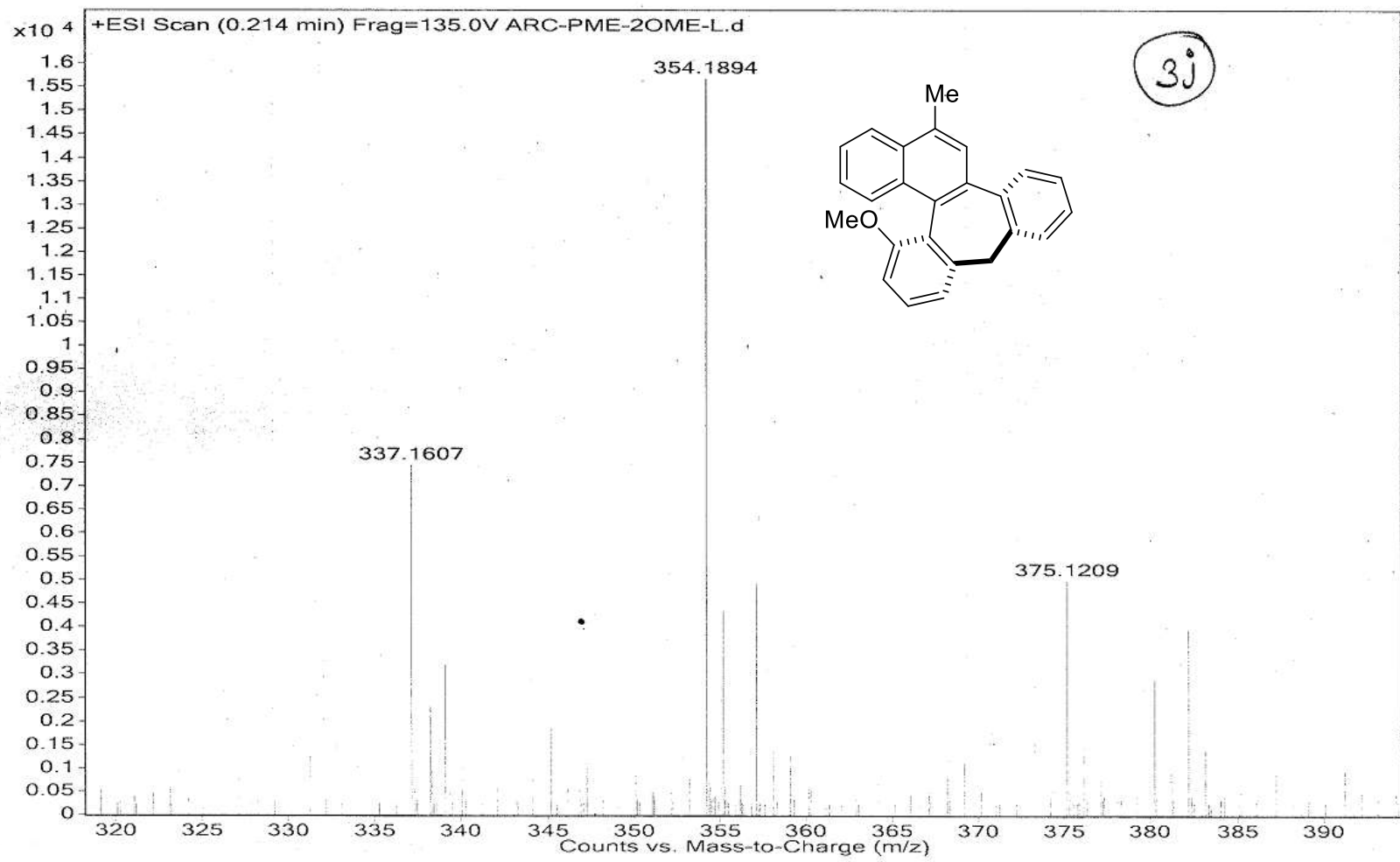
HRMS Spectrum of 3i

| | | | | | | | |
|---------------|----------------|-------------|--------|-----------------|--------|------------------------|----------------------|
| Sample Name | ARC-ME-OME-A | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | Success |
| Data Filename | ARC-ME-OME-A.d | ACQ Method | | Comment | | Acquired Time | 4/16/2018 4:09:27 PM |



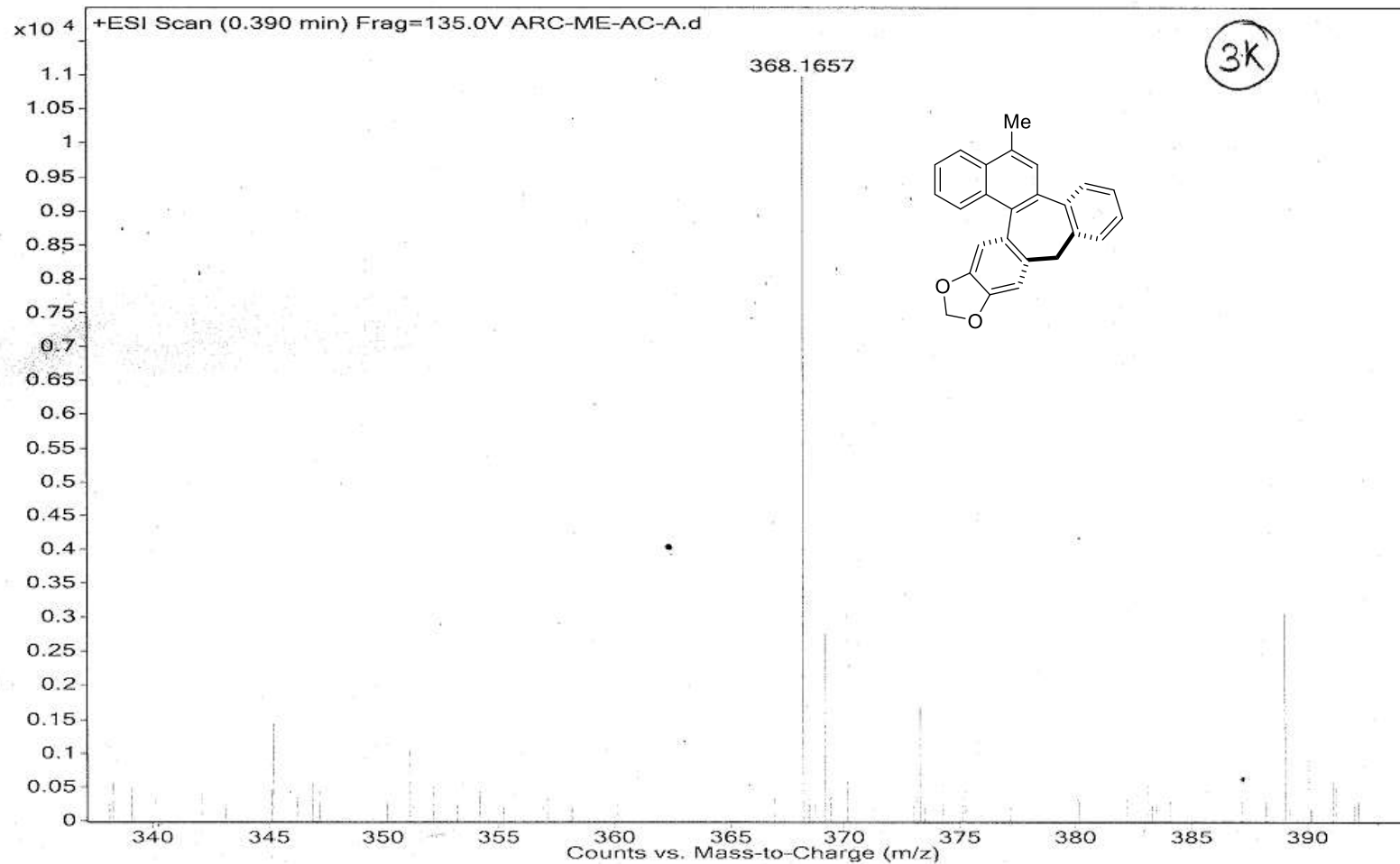
HRMS Spectrum of 3j

| | | | | | | | |
|---------------|------------------|-------------|--------|-----------------|--------|------------------------|----------------------|
| Sample Name | ARC-PME-2OME-L | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | Success |
| Data Filename | ARC-PME-2OME-L.d | ACQ Method | | Comment | | Acquired Time | 4/16/2018 4:25:19 PM |



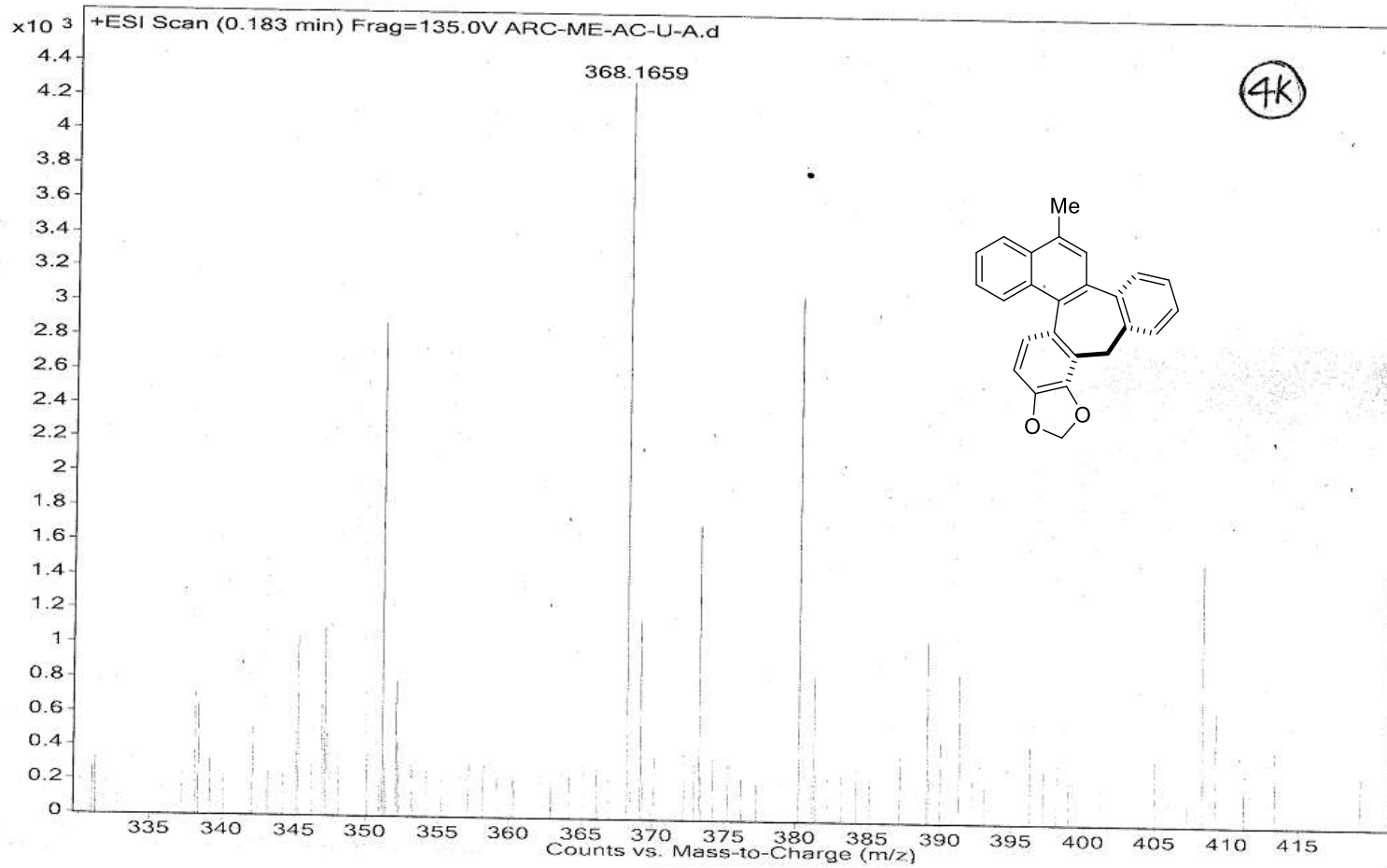
HRMS Spectrum of 3k

| | | | | | | | |
|---------------|---------------|-------------|--------|-----------------|--------|------------------------|----------------------|
| Sample Name | ARC-ME-AC-A | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | Success |
| Data Filename | ARC-ME-AC-A.d | ACQ Method | | Comment | | Acquired Time | 4/16/2018 4:11:48 PM |



HRMS Spectrum of 4k

| | | | | | | | |
|---------------|-----------------|-------------|--------|-----------------|--------|------------------------|----------------------|
| Sample Name | ARC-ME-AC-U-A | Position | Vial 1 | Instrument Name | QTOF | User Name | |
| Inj Vol | -1 | InjPosition | | SampleType | Sample | IRM Calibration Status | Success |
| Data Filename | ARC-ME-AC-U-A.d | ACQ Method | | Comment | | Acquired Time | 4/16/2018 4:15:45 PM |



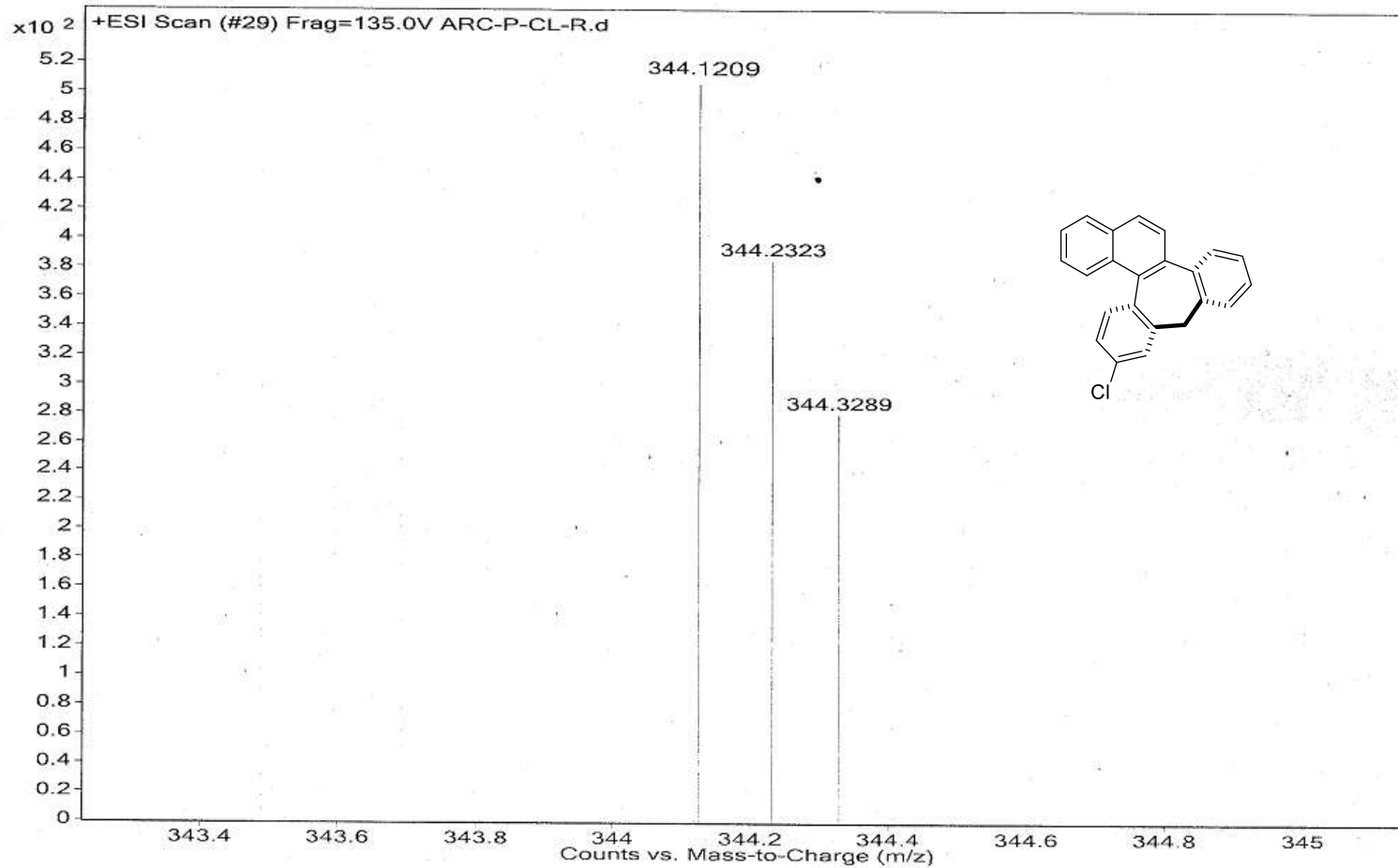
HRMS Spectrum of 31

Sample Name
Inj Vol
Data Filename

Position
InjPosition
ACQ Method

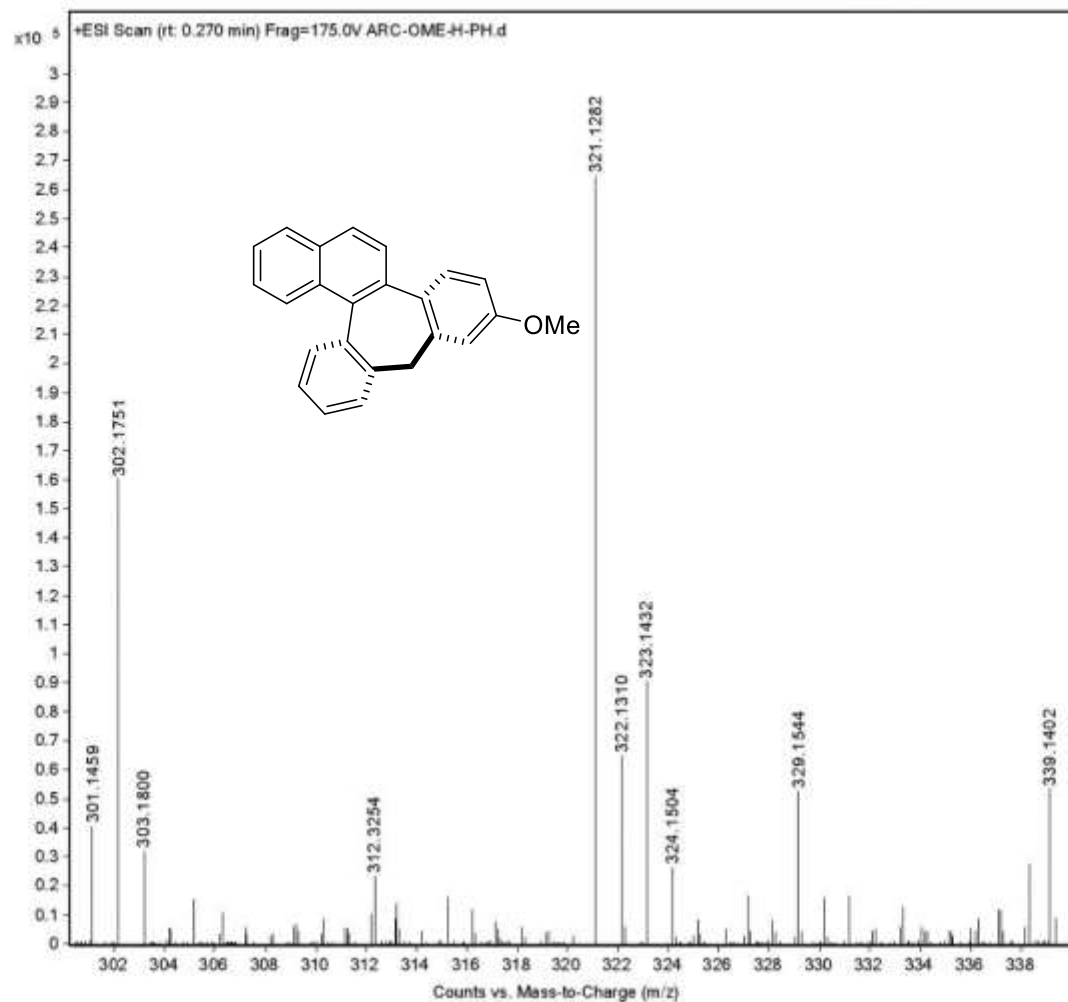
Instrument Name
SampleType
Comment

User Name
IRM Calibration Status
Acquired Time



HRMS Spectrum of 3m

| | | | | | |
|--------------------|--------------------|-------------------------------|---------|------------------------|---------------------------------|
| Sample Name | SAMPLE | Position | P1-A4 | Instrument Name | Instrument 1 |
| User Name | | Inj Vol | 20 | InjPosition | |
| Sample Type | Sample | IRM Calibration Status | Success | Data Filename | ARC-OME-H-PH.d |
| ACQ Method | ESI ALS 100-1000.m | Comment | | Acquired Time | 28-10-2019 16:36:58 (UTC+05:30) |



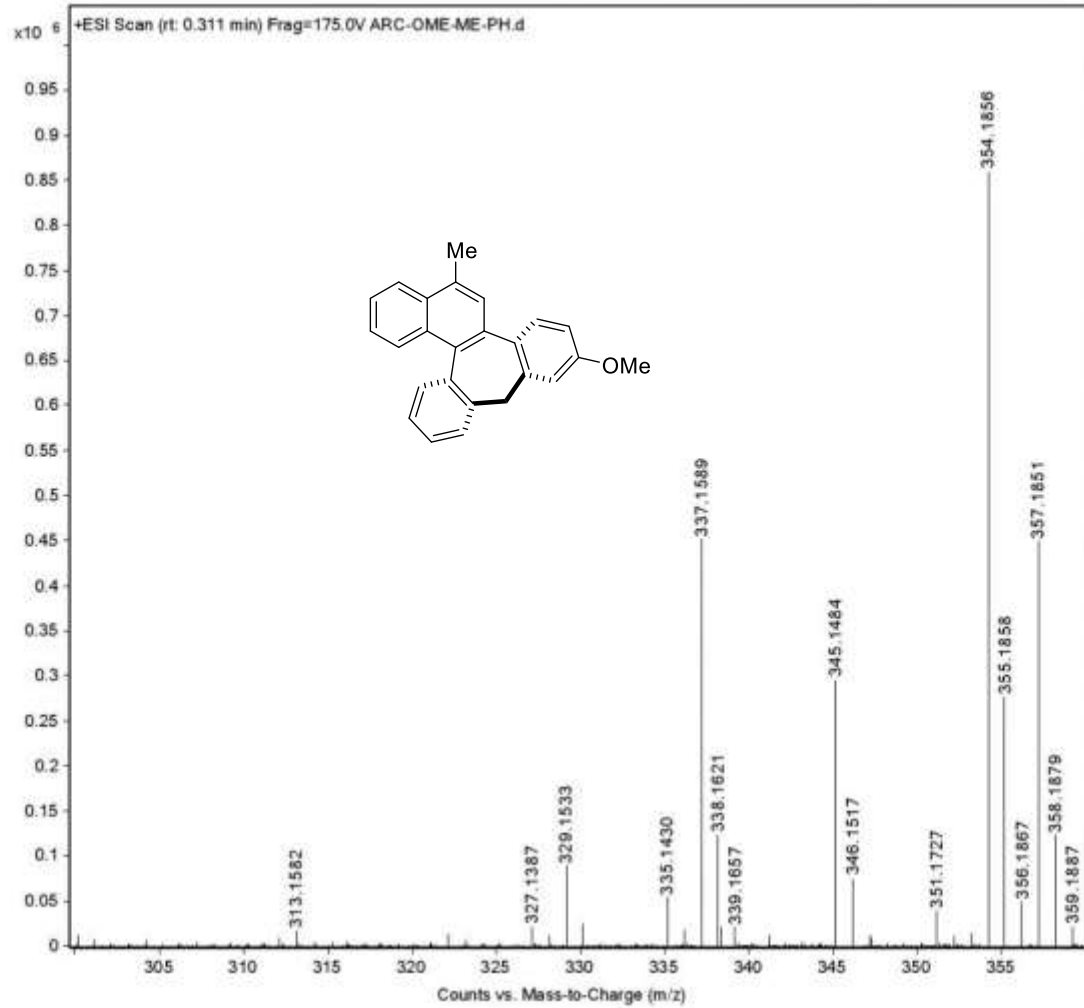
HRMS Spectrum of 3n

Sample Name
User Name
Sample Type
ACQ Method

SAMPLE
Sample
ESI ALS 100-1000.m

Position P1-A5
Inj Vol 20
IRM Calibration Status Success
Comment

Instrument Name Instrument 1
InjPosition
Data Filename ARC-OME-ME-PH.d
Acquired Time 28-10-2019 16:38:47 (UTC+05:30)



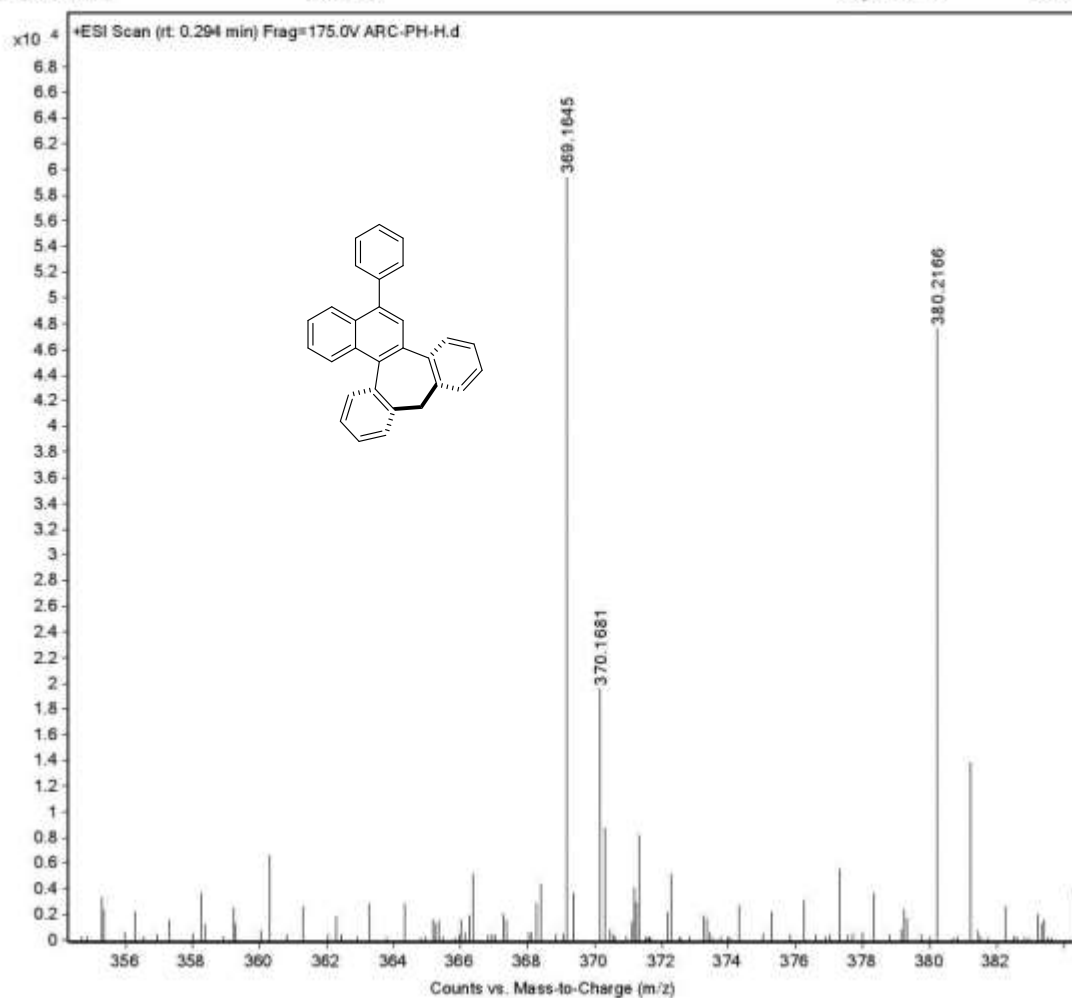
HRMS Spectrum of 3o

Sample Name
User Name
Sample Type
ACQ Method

SAMPLE
Sample
ESI ALS 100-1000.m

Position P1-A2
Inj Vol 20
IRM Calibration Status Success
Comment

Instrument Name Instrument 1
InjPosition
Data Filename ARC-PH-H.d
Acquired Time 28-10-2019 16:33:14 (UTC+05:30)



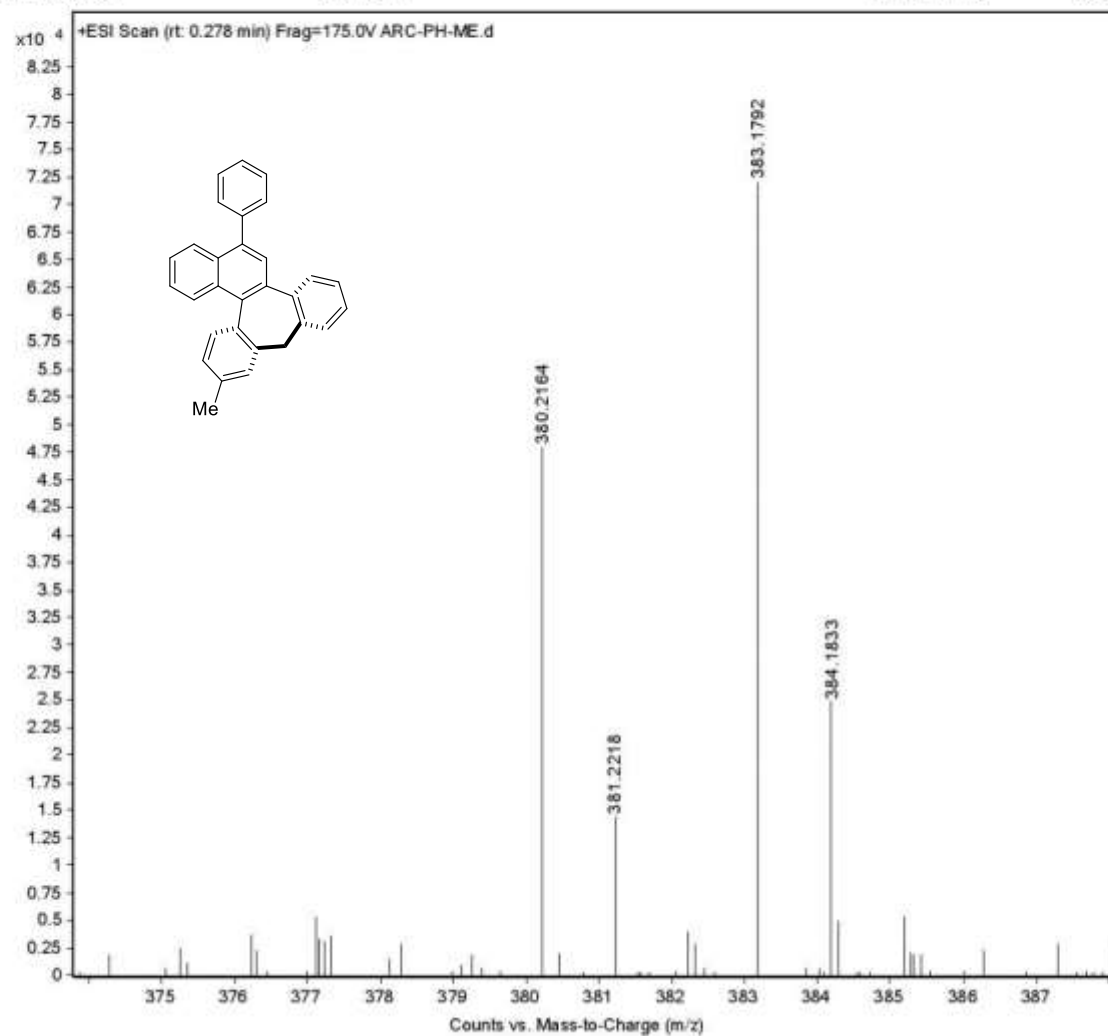
HRMS Spectrum of 3p

Sample Name
User Name
Sample Type
ACQ Method

SAMPLE
Sample
ESI ALS 100-1000.m

Position P1-A3
Inj Vol 20
IRM Calibration Status Success
Comment

Instrument Name Instrument 1
InjPosition
Data Filename ARC-PH-ME.d
Acquired Time 28-10-2019 16:35:07 (UTC+05:30)



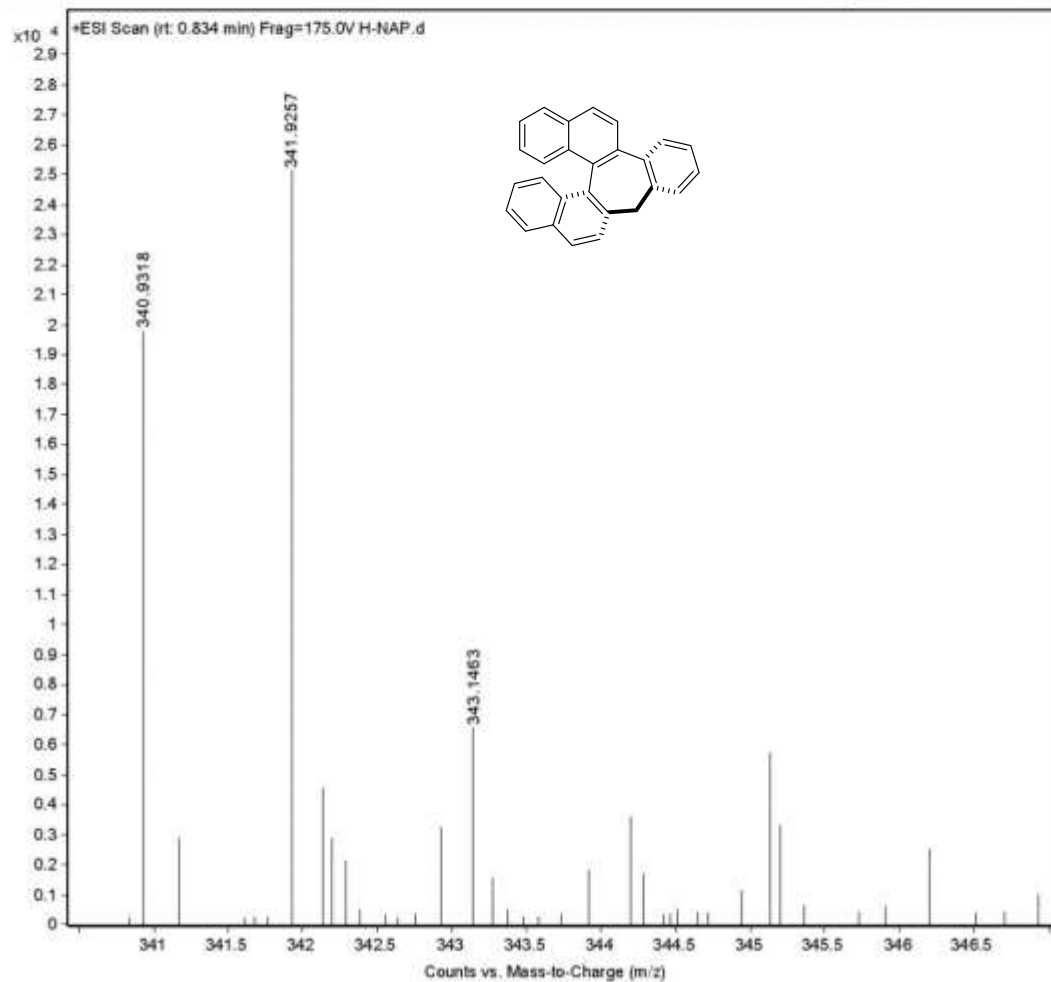
HRMS Spectrum of 3q

Sample Name
User Name
Sample Type
ACQ Method

H-NAP
Sample
ESI ALS 100-500.m

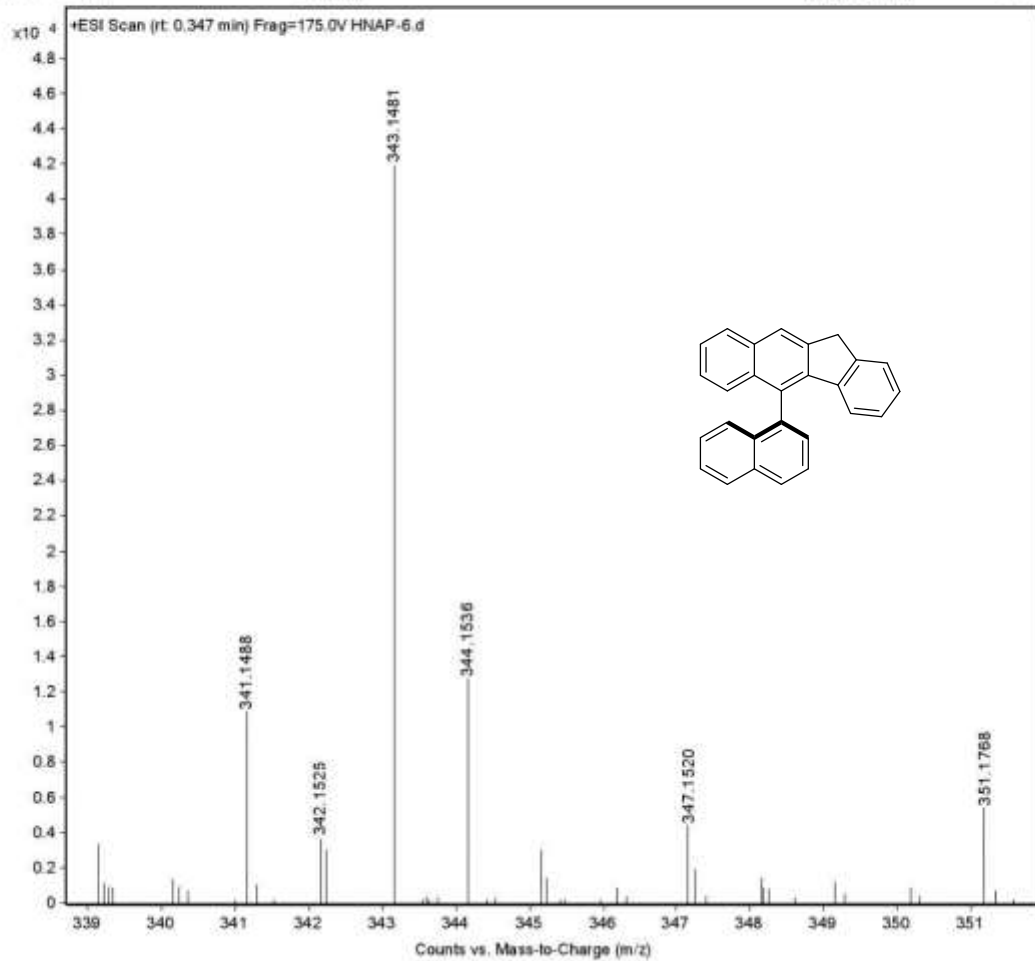
Position P1-A9
Inj Vol 20
IRM Calibration Status Success
Comment

Instrument Name Instrument 1
InjPosition
Data Filename H-NAP.d
Acquired Time 11-11-2019 16:34:53 (UTC+05:30)



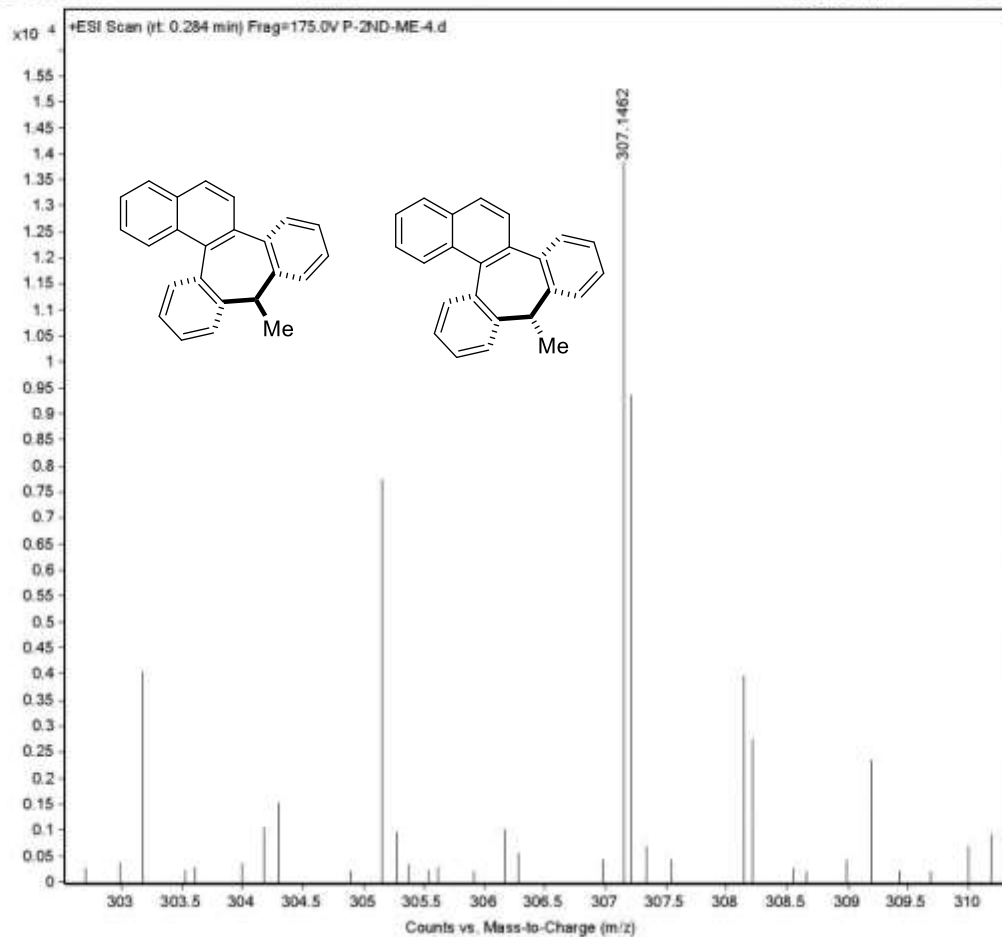
HRMS Spectrum of 4q

| | | | | | |
|--------------------|-------------------|-------------------------------|---------|------------------------|---------------------------------|
| Sample Name | HNAP-6 | Position | P1-A2 | Instrument Name | Instrument 1 |
| User Name | | Inj Vol | 20 | InjPosition | |
| Sample Type | Sample | IRM Calibration Status | Success | Data Filename | HNAP-6.d |
| ACQ Method | ESI ALS 100-600.m | Comment | | Acquired Time | 05-11-2020 17:03:20 (UTC+05:30) |



HRMS Spectrum of 3r and 4r

| | | | | | |
|--------------------|--------------------|-------------------------------|---------|------------------------|---------------------------------|
| Sample Name | P-2ND-ME-4 | Position | P1-B9 | Instrument Name | Instrument 1 |
| User Name | | Inj Vol | 20 | InjPosition | |
| Sample Type | Sample | IRM Calibration Status | Success | Data Filename | P-2ND-ME-4.d |
| ACQ Method | ESI ALS 100-1000.m | Comment | | Acquired Time | 03-11-2020 10:57:15 (UTC+05:30) |



HRMS Spectrum of 3t

Sample Name
User Name
Sample Type
ACQ Method

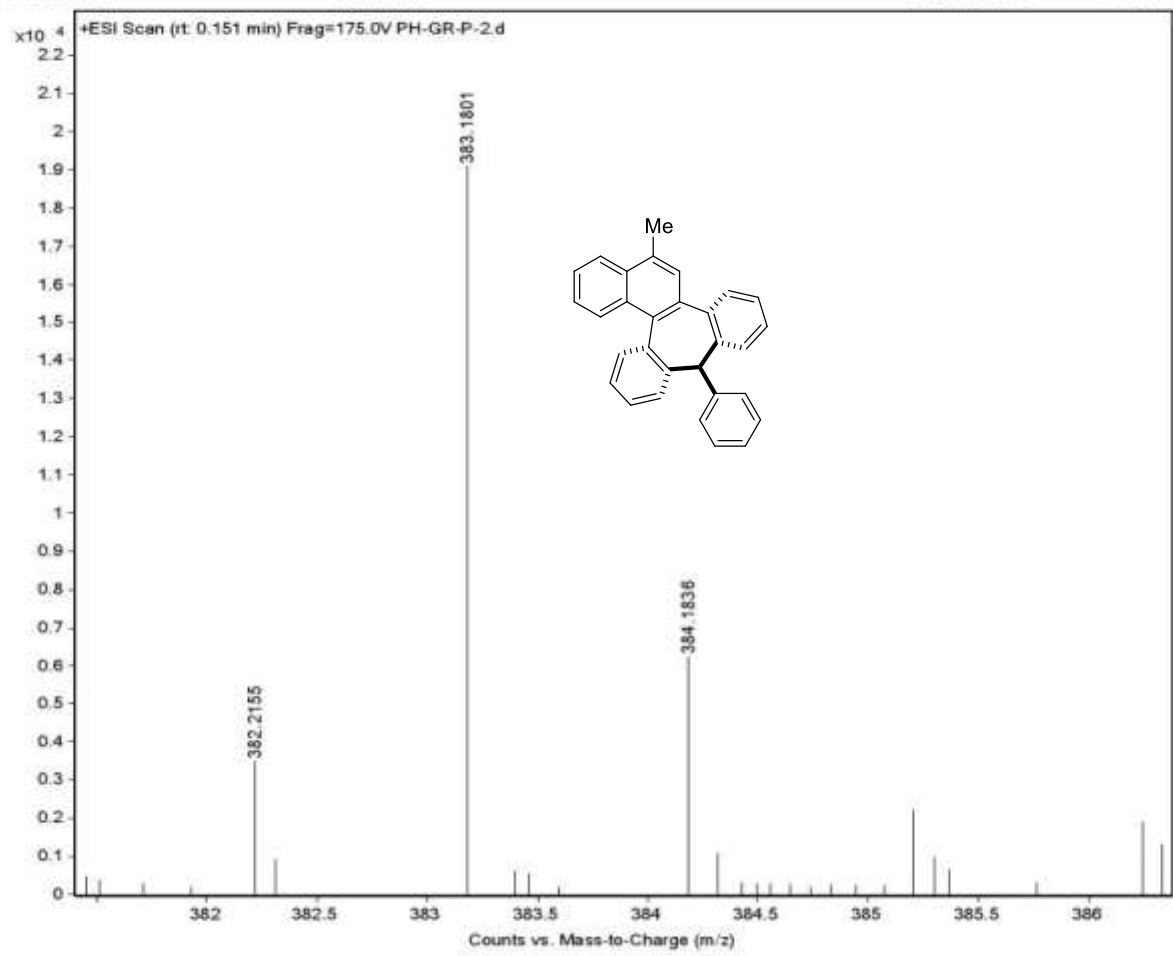
SAMPLE
Sample
ESI ALS 100-500.m

Position
Inj Vol
IRM Calibration Status
Comment

P1-D1
20
Success

Instrument Name
InjPosition
Data Filename
Acquired Time

Instrument 1
PH-GR-P-2.d
12-02-2021 18:21:43 (UTC+05:30)



HRMS Spectrum of 3u and 4u

