

Supporting Information for Review

## **Synthesis of Substituted N-Heterocycles via Cascade, Michael Addition, Double Cyclization and Air Oxidation Reaction**

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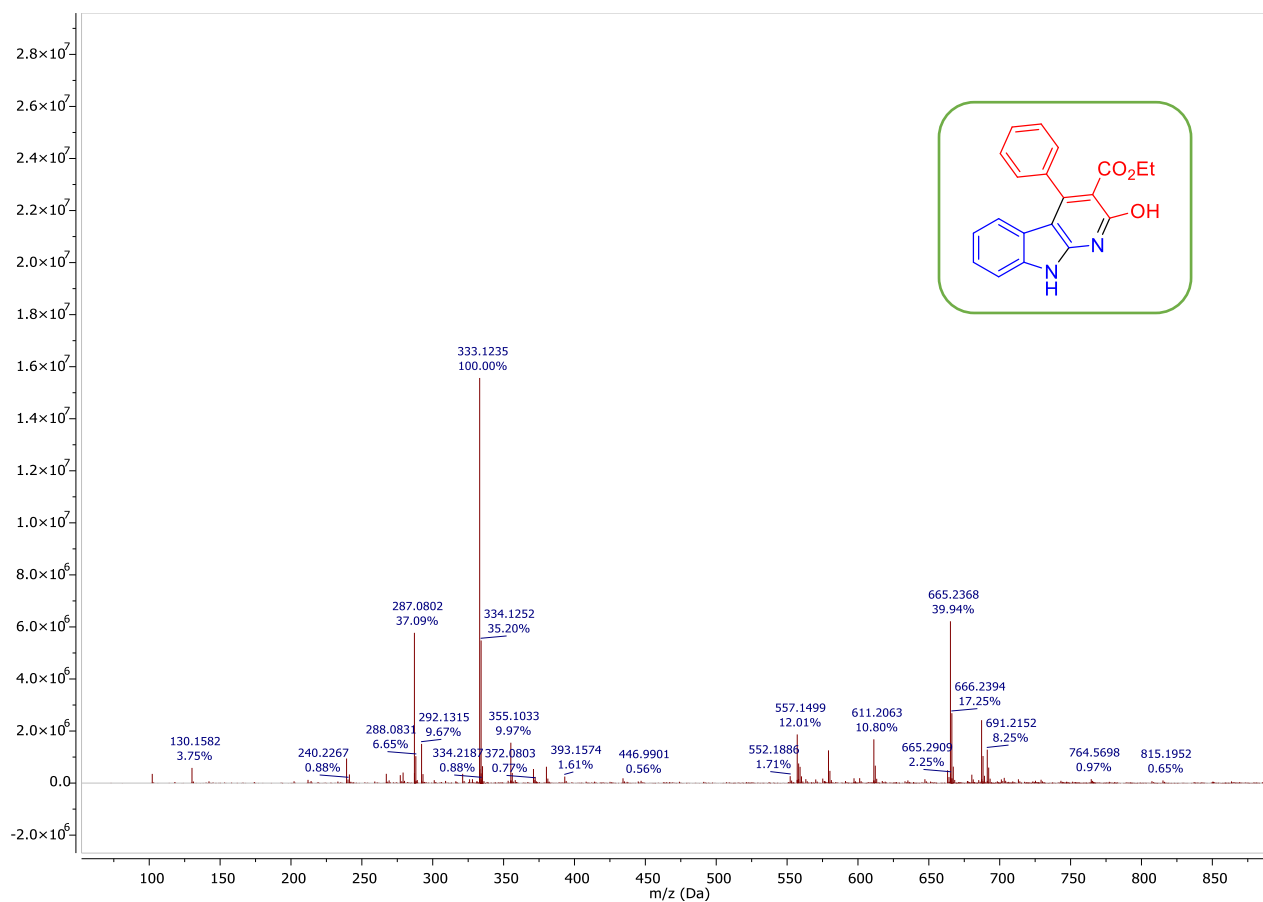
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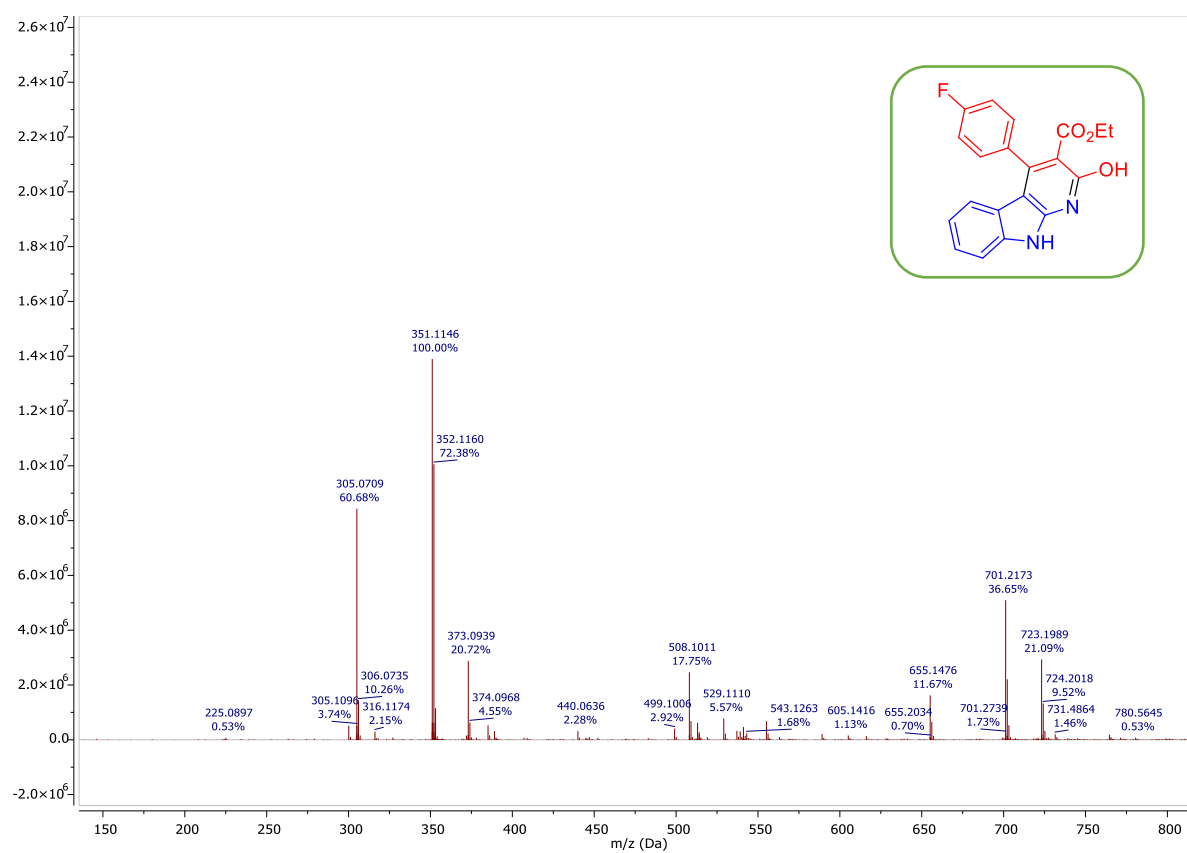
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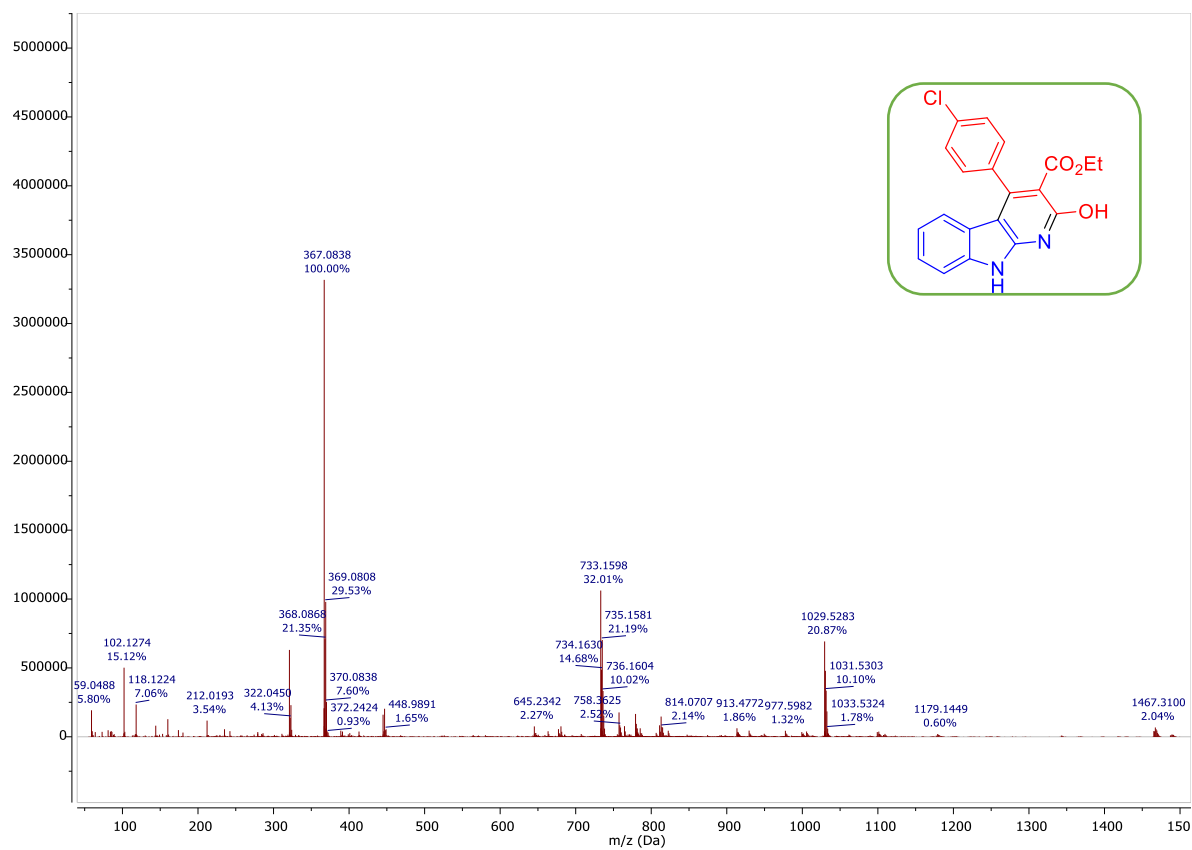
### HRMS spectrum of compound 3a



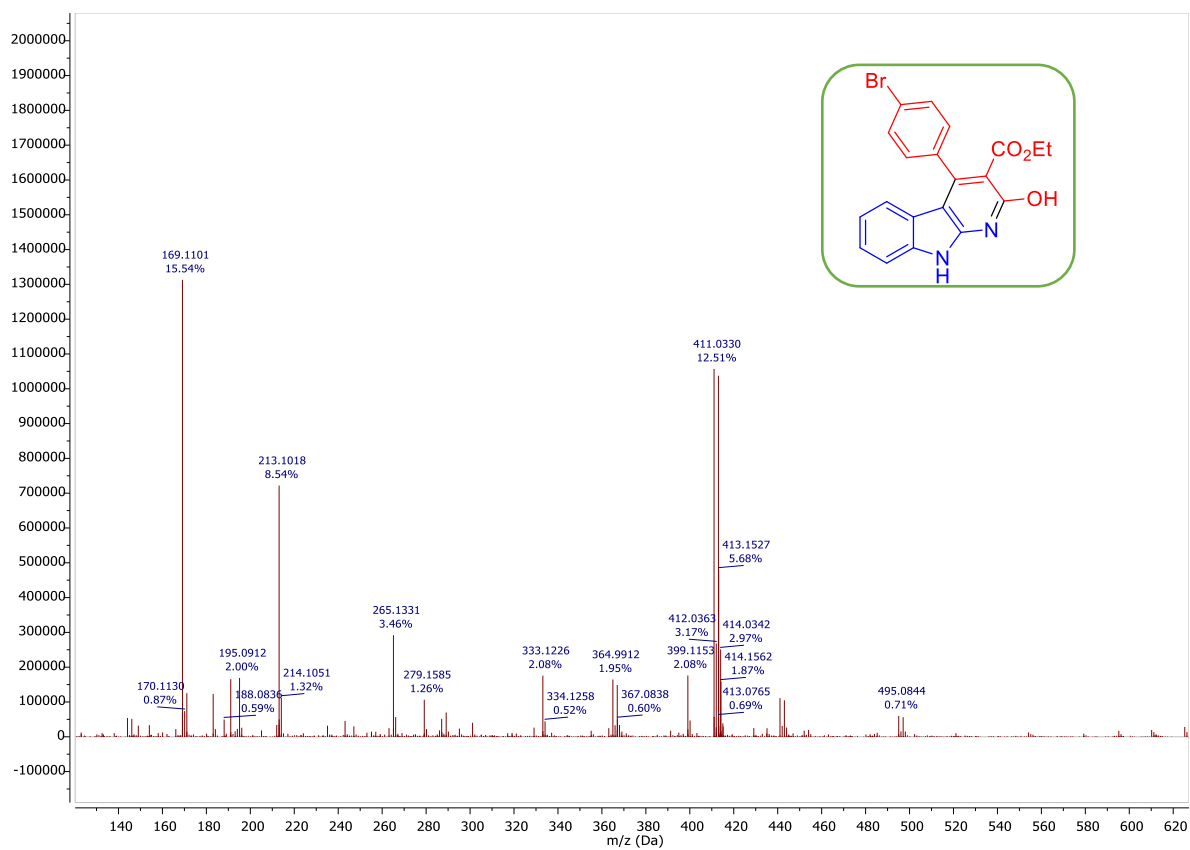
### HRMS spectrum of compound **3b**



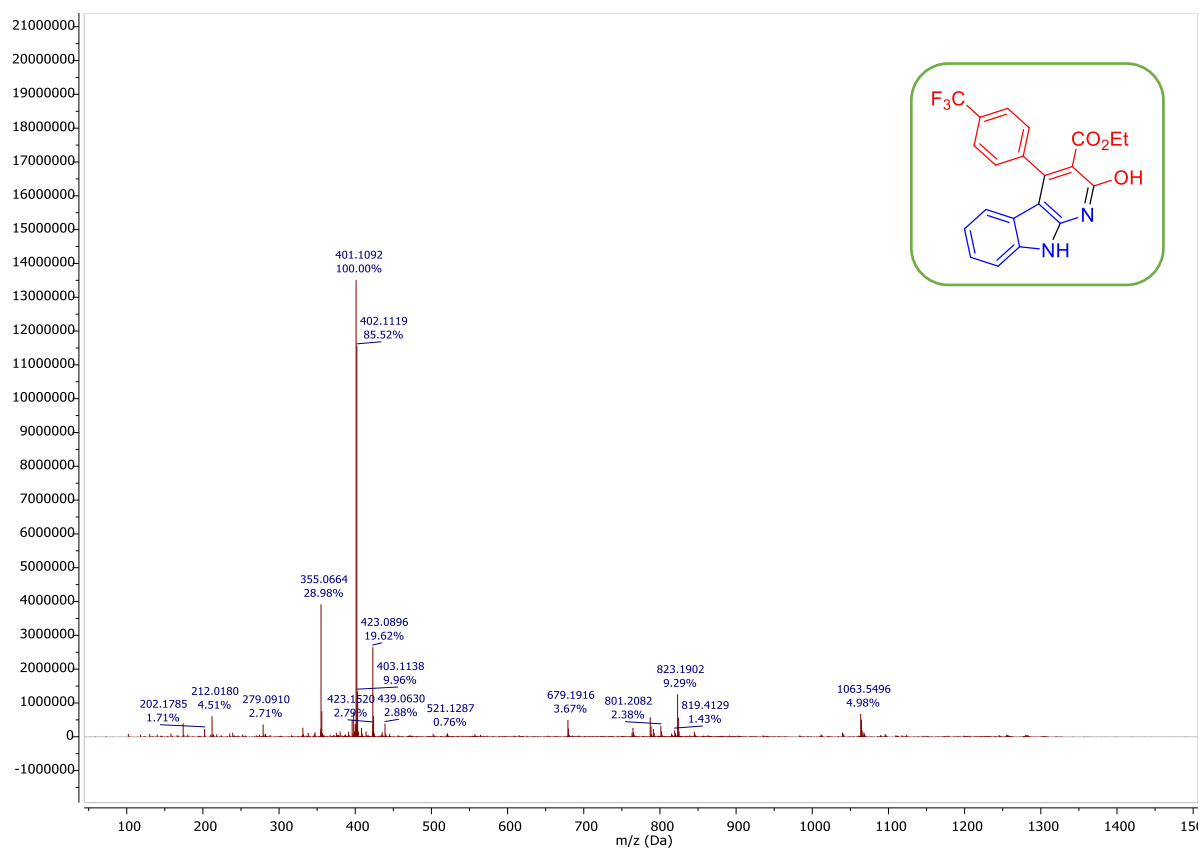
# HRMS spectrum of compound 3c



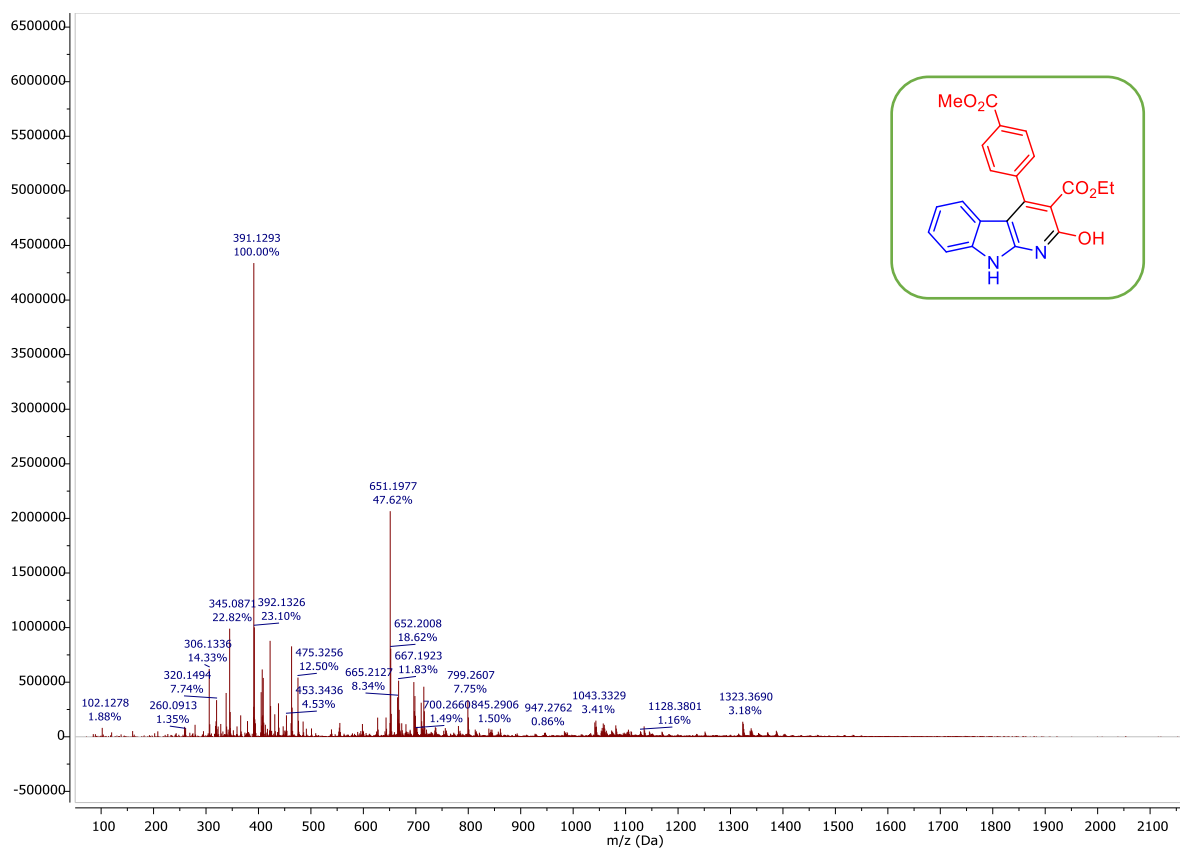
### HRMS spectrum of compound 3d



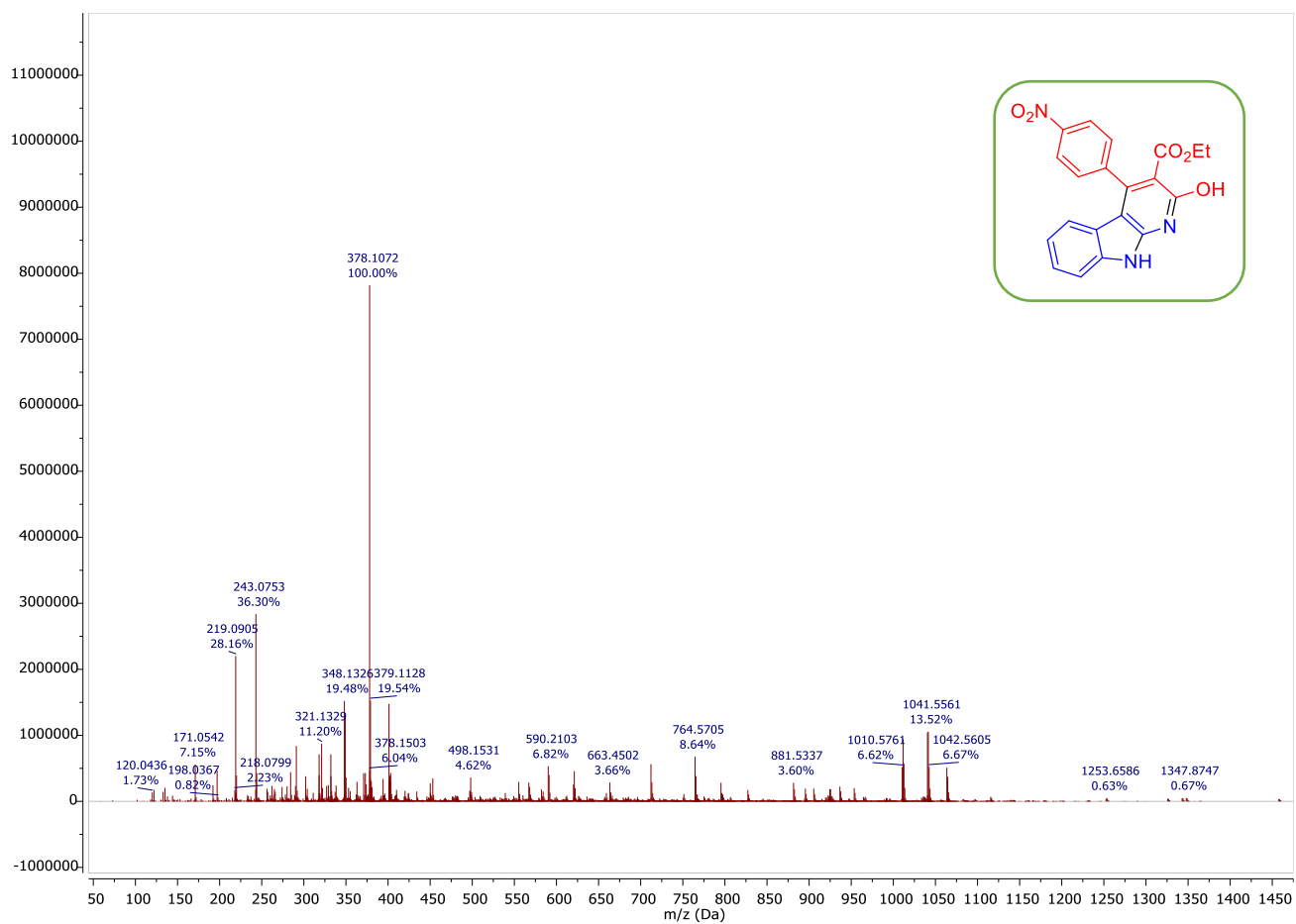
### HRMS spectrum of compound **3e**



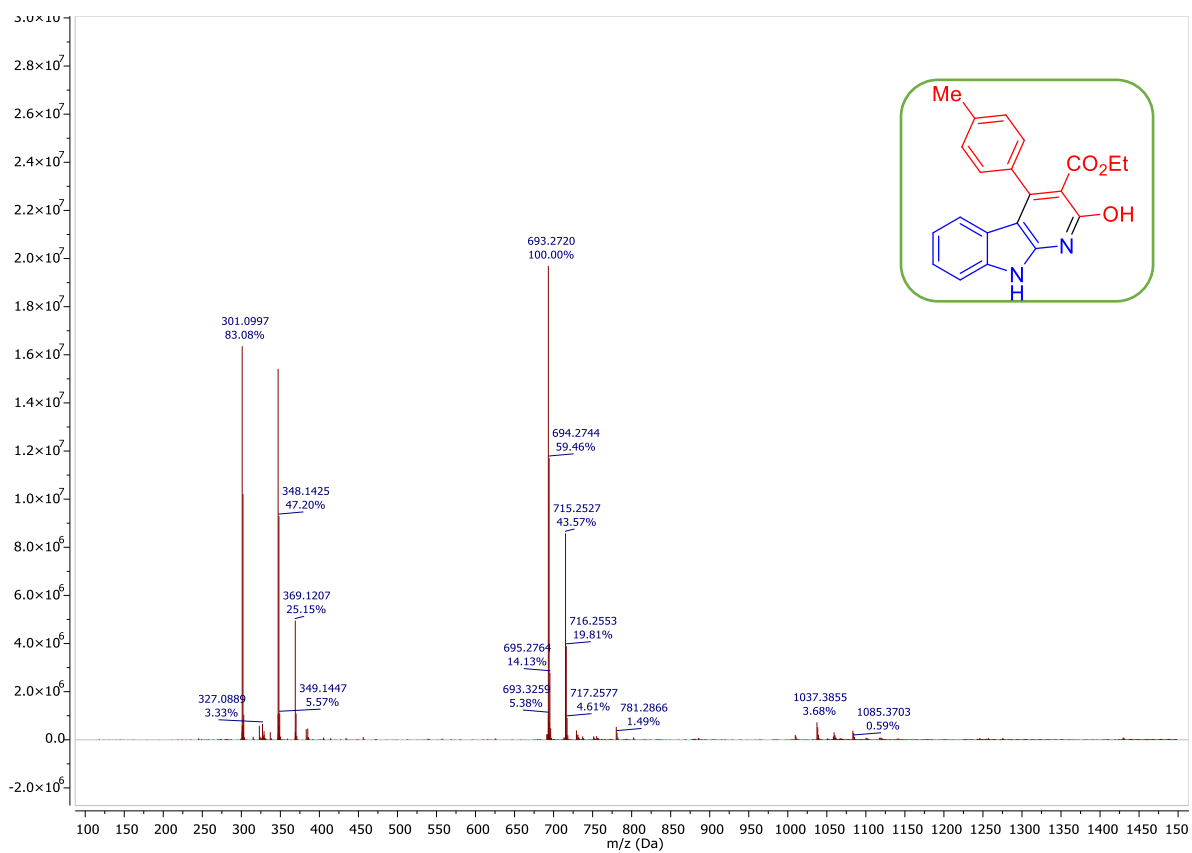
### HRMS spectrum of compound **3f**



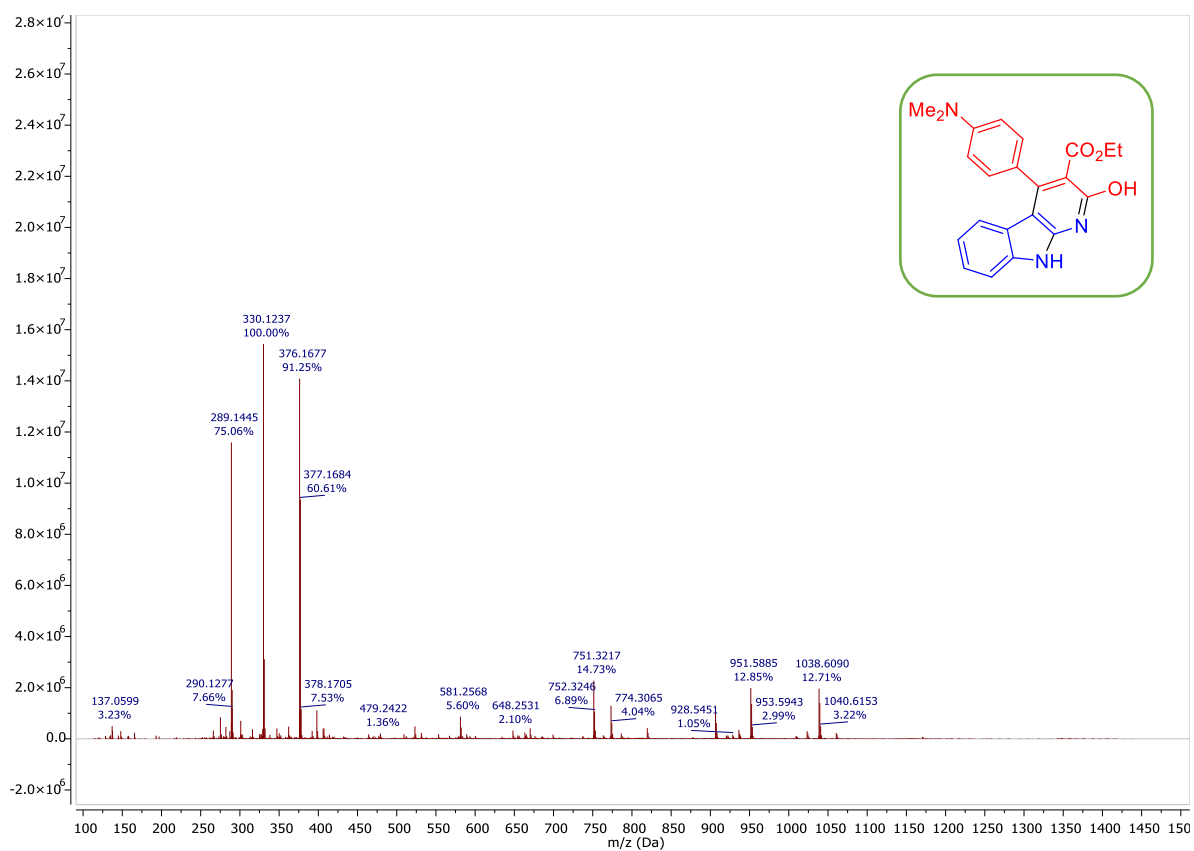
# HRMS spectrum of compound 3g



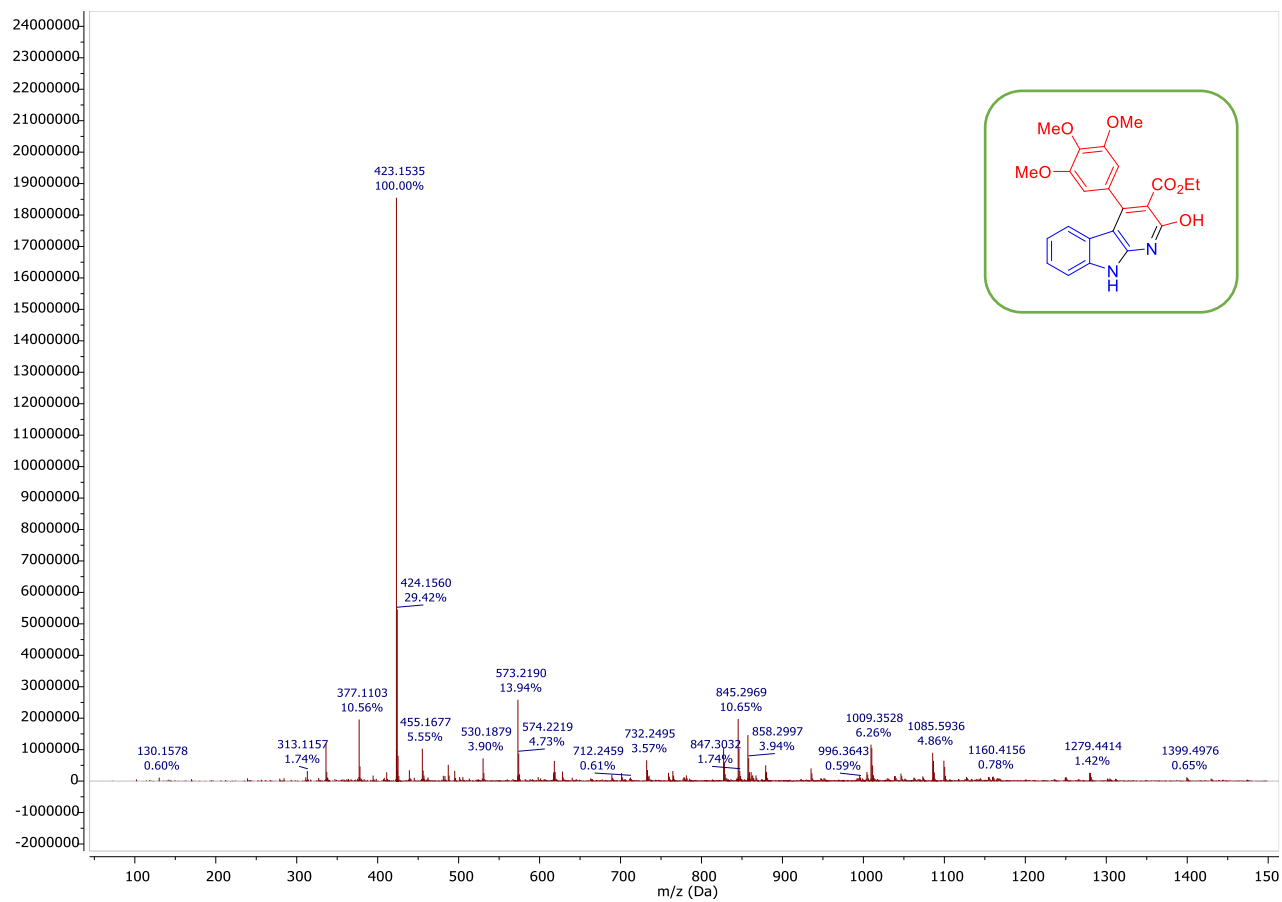
### HRMS spectrum of compound **3h**



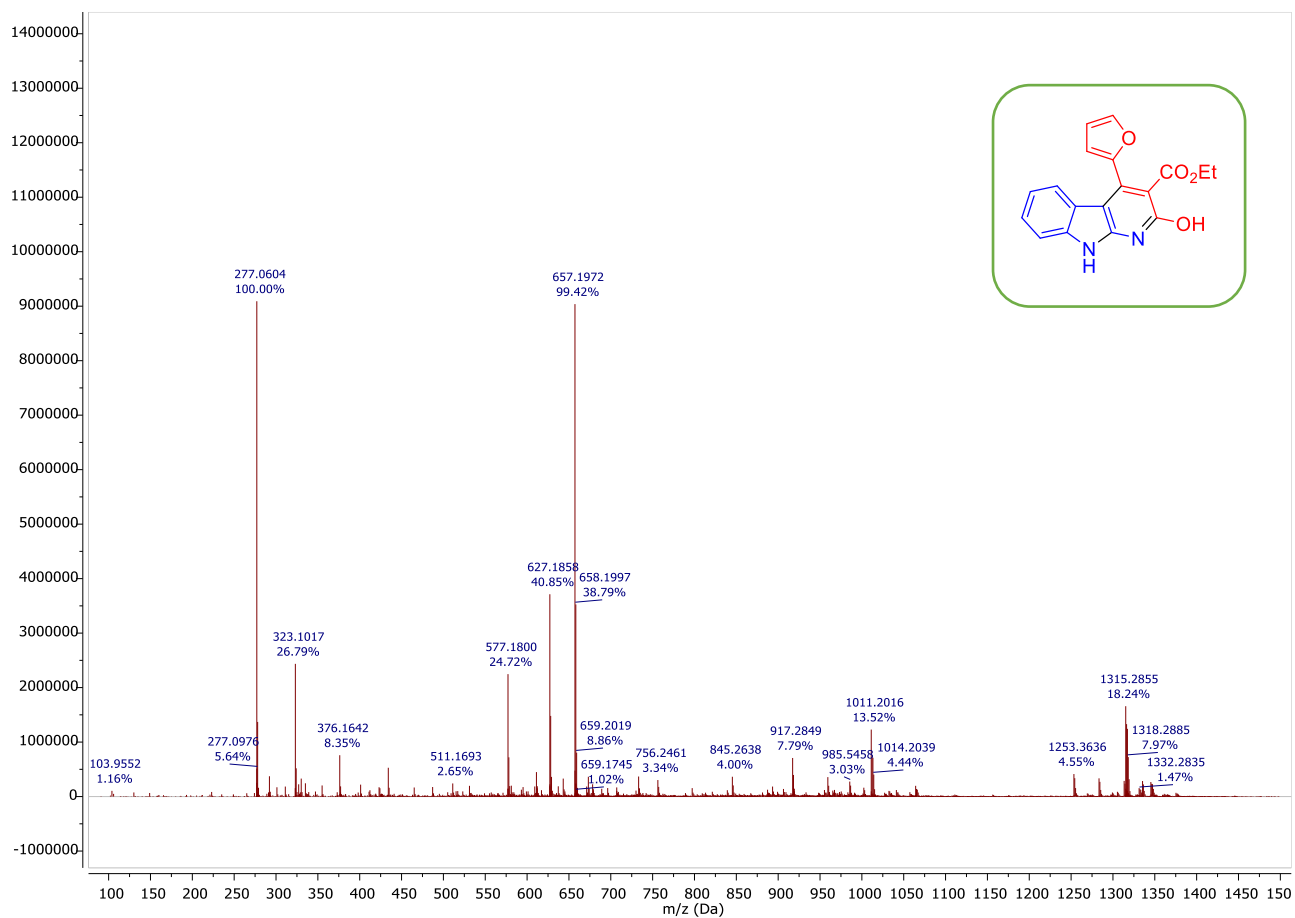
### HRMS spectrum of compound **3i**



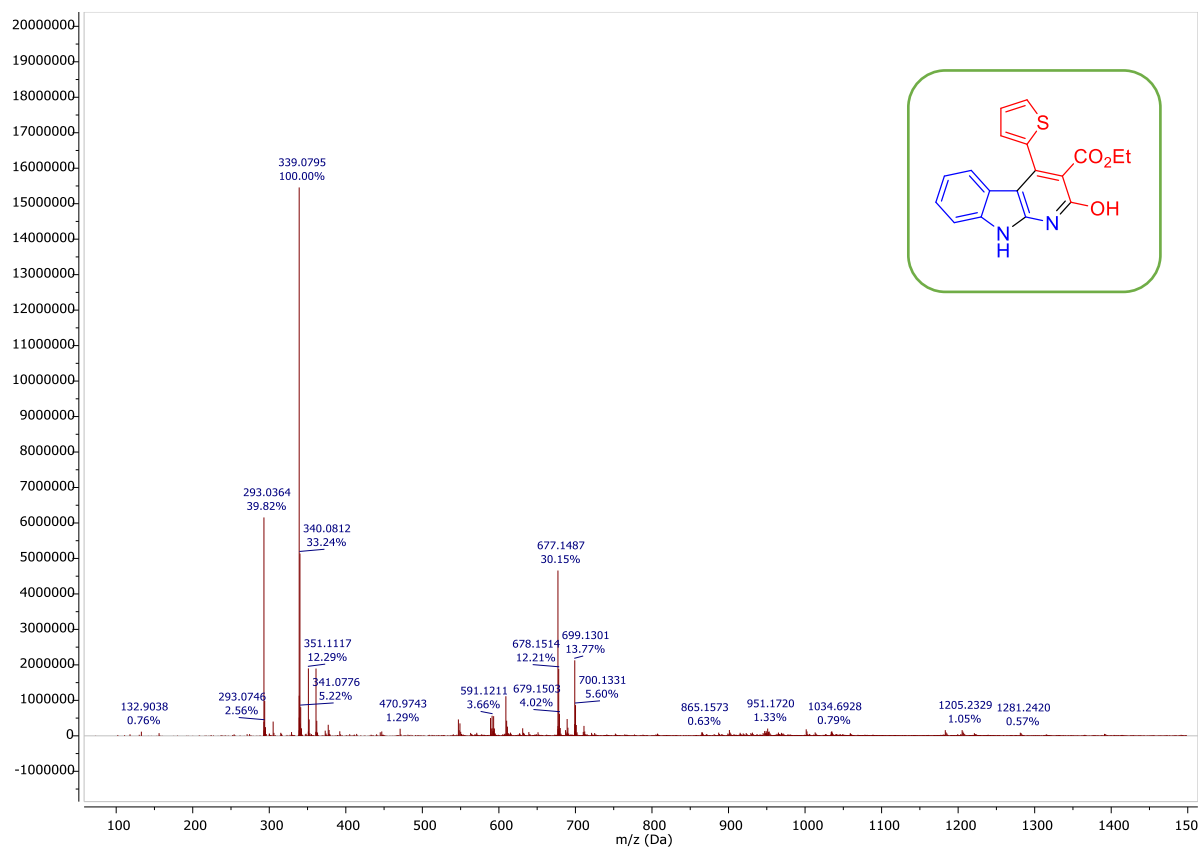
### HRMS spectrum of compound 3j



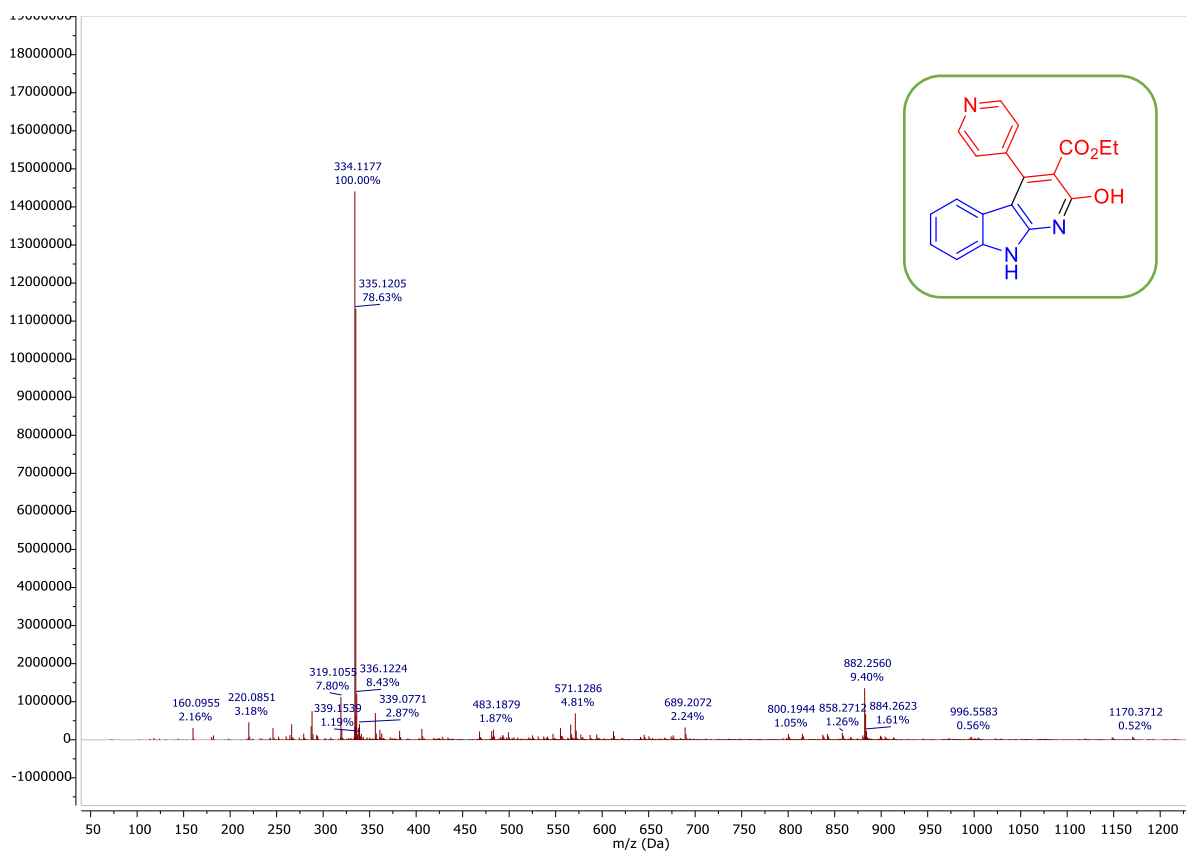
# HRMS spectrum of compound 3k



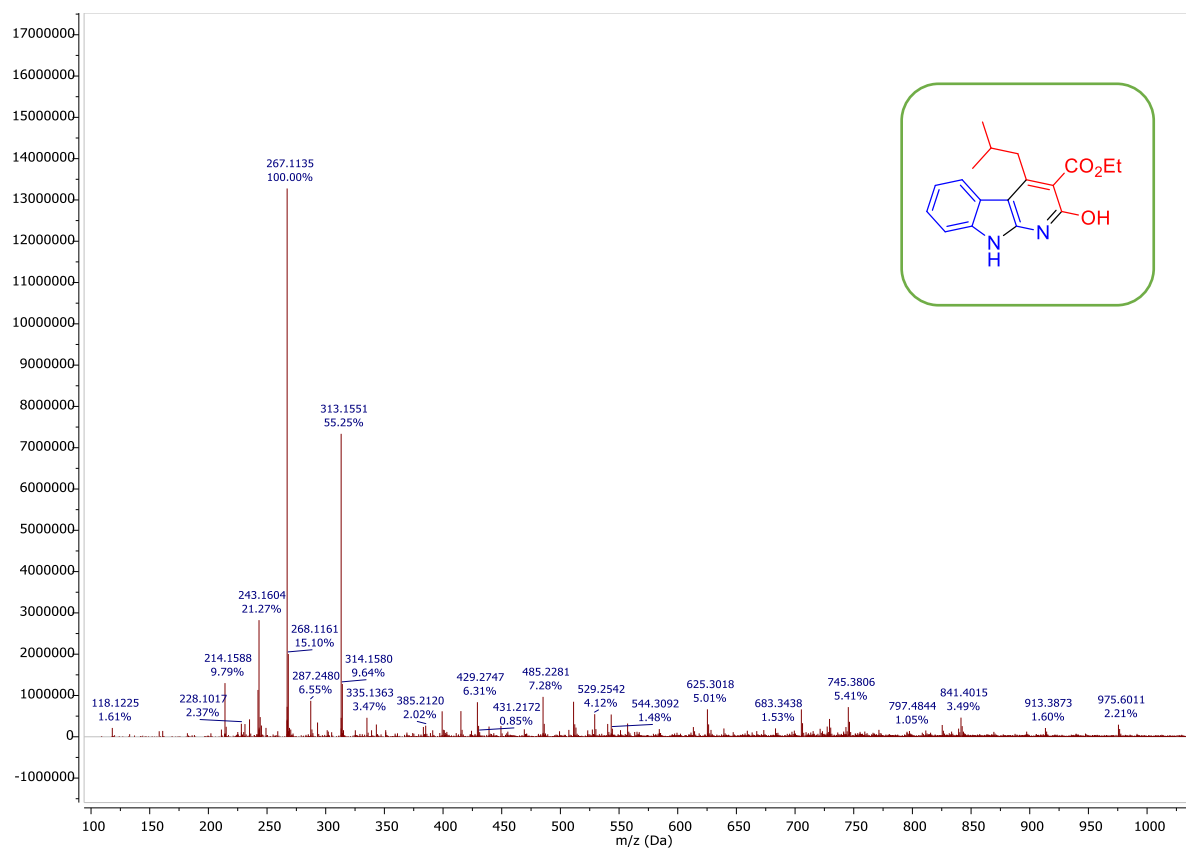
# HRMS spectrum of compound 31



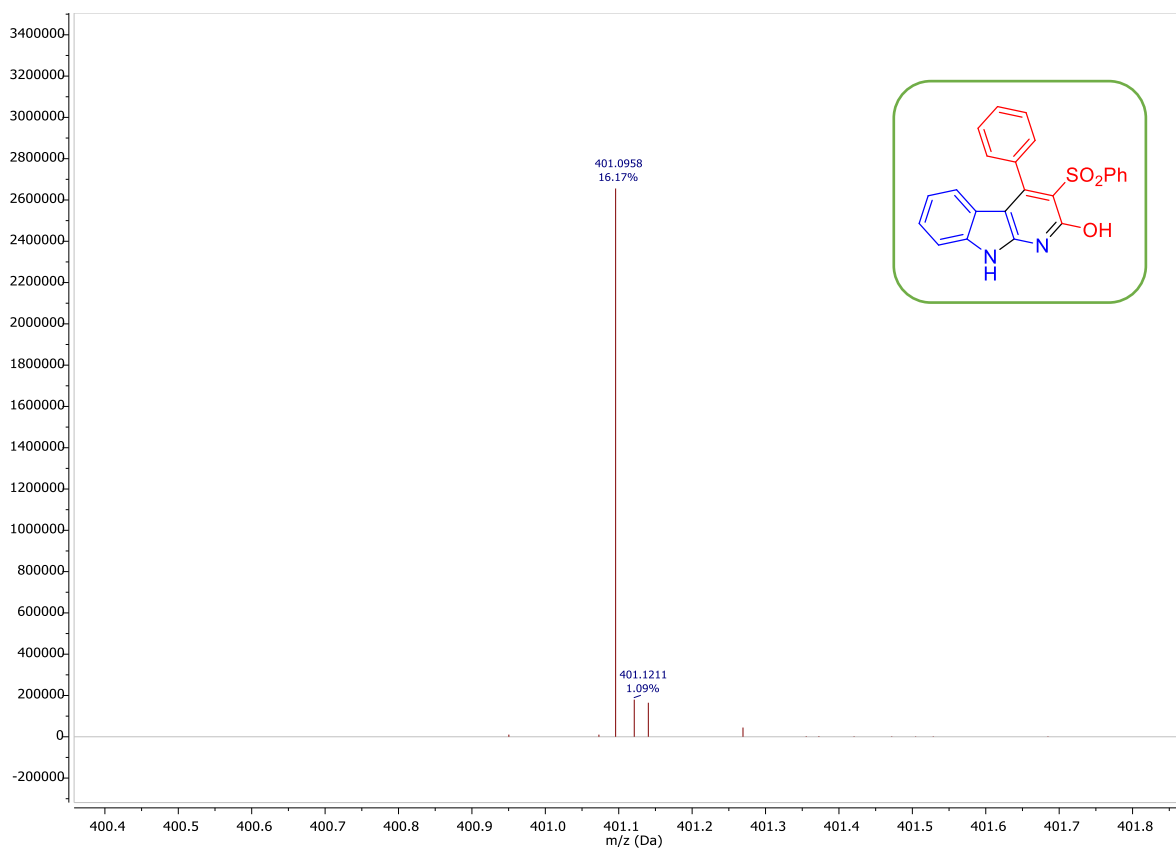
### HRMS spectrum of compound **3m**



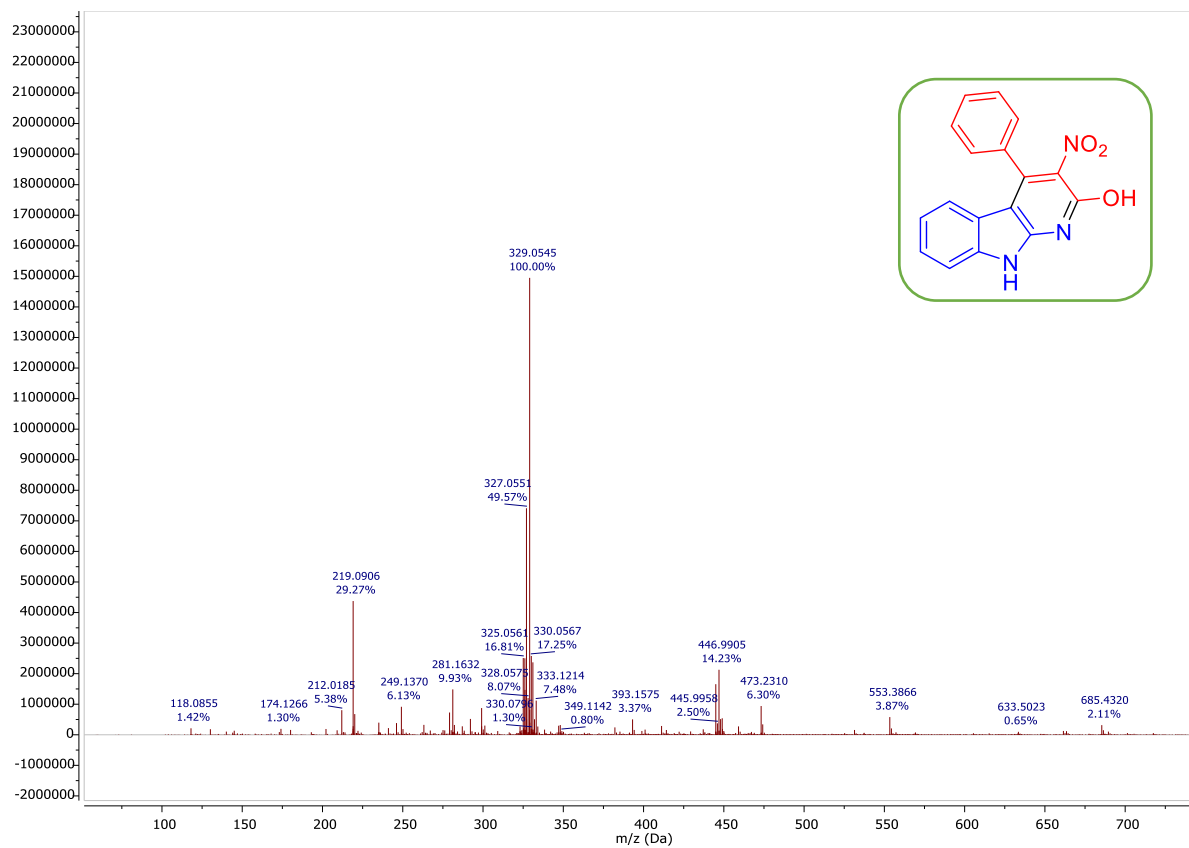
### HRMS spectrum of compound 3n



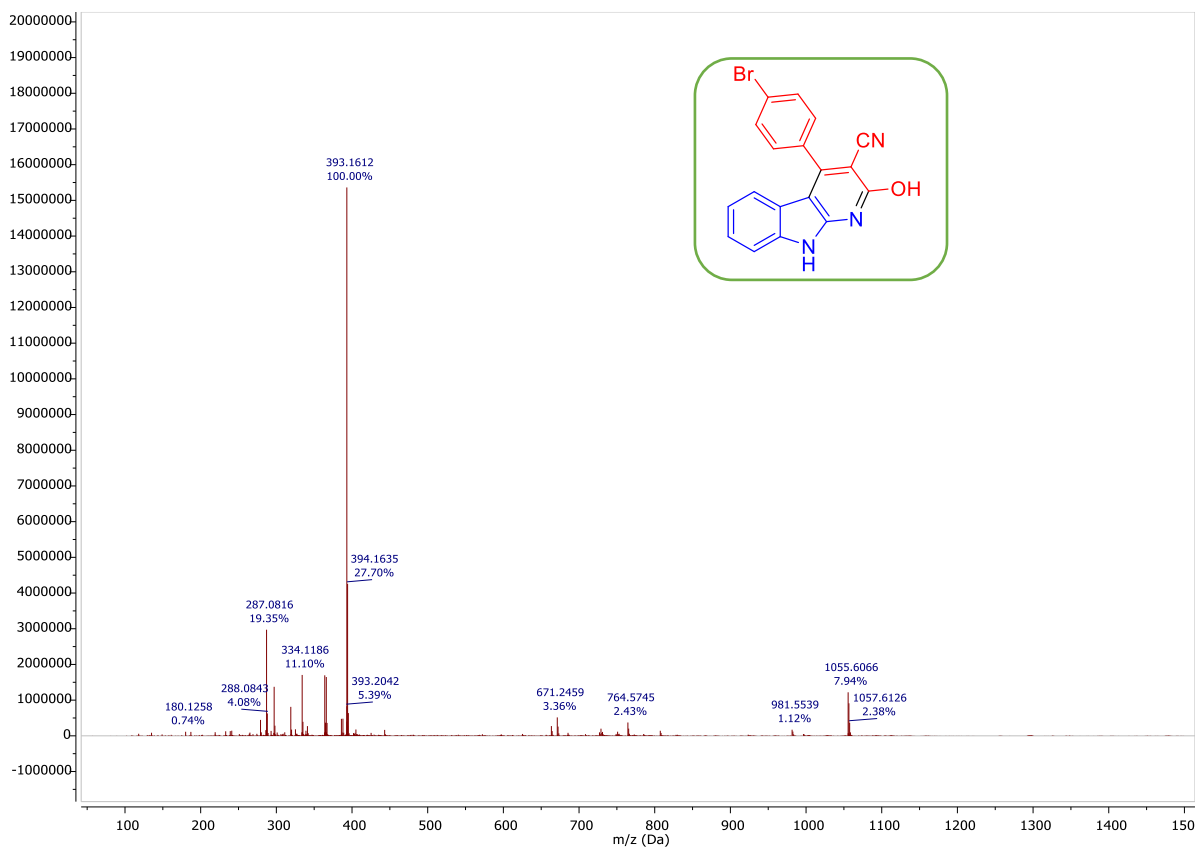
### HRMS spectrum of compound **30**



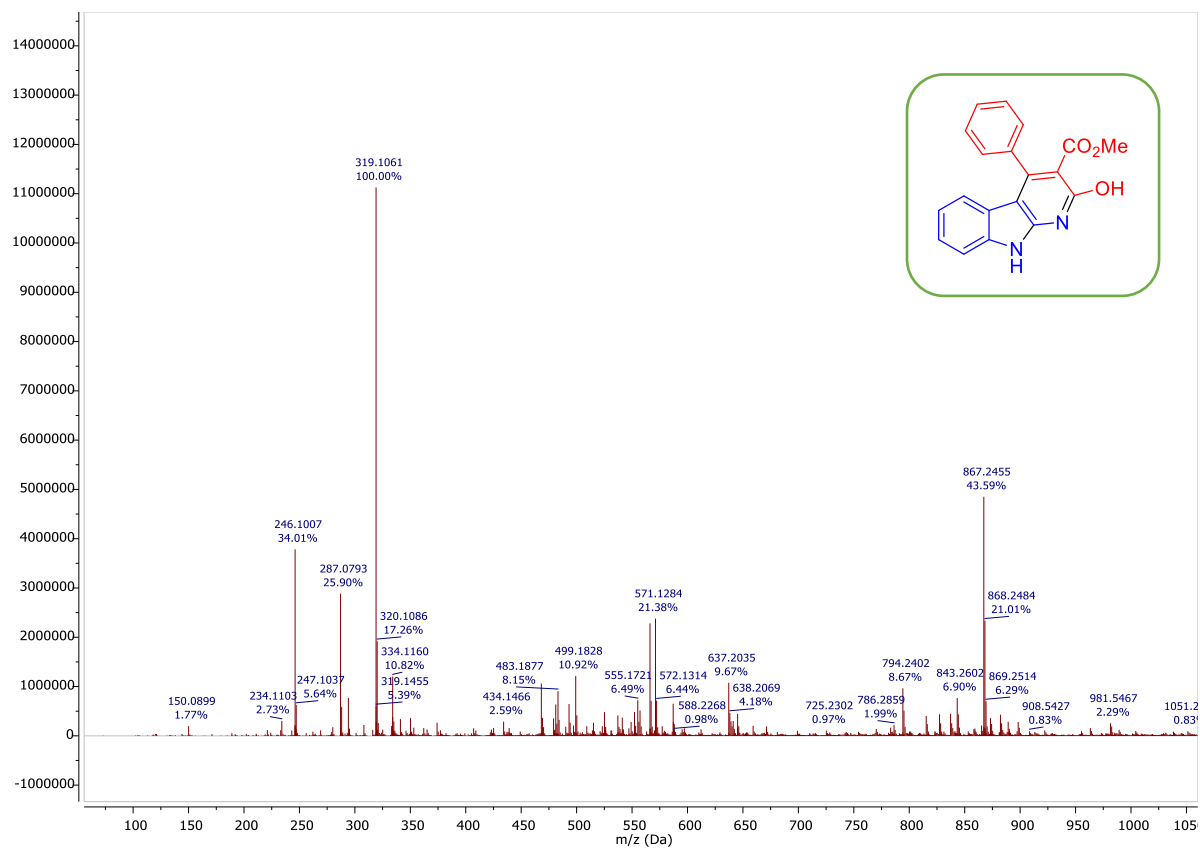
# HRMS spectrum of compound 3p



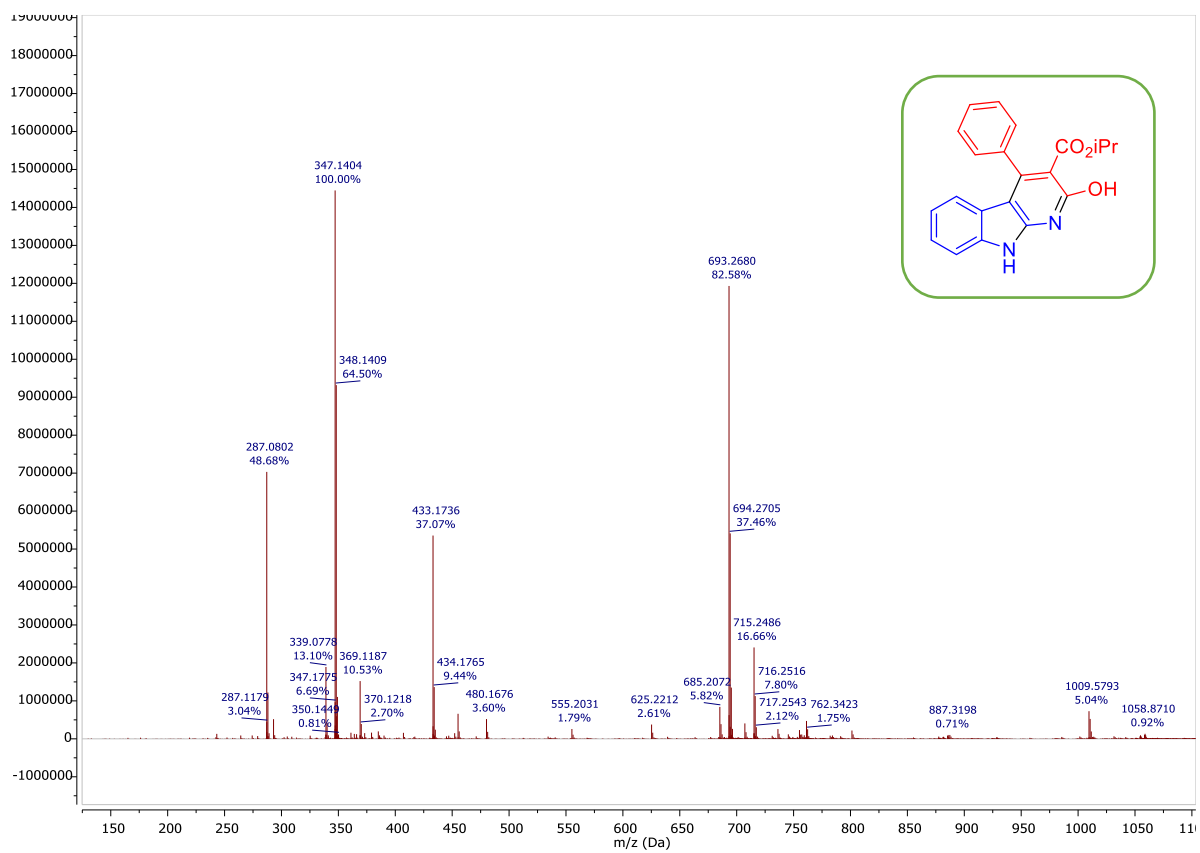
### HRMS spectrum of compound **3q**



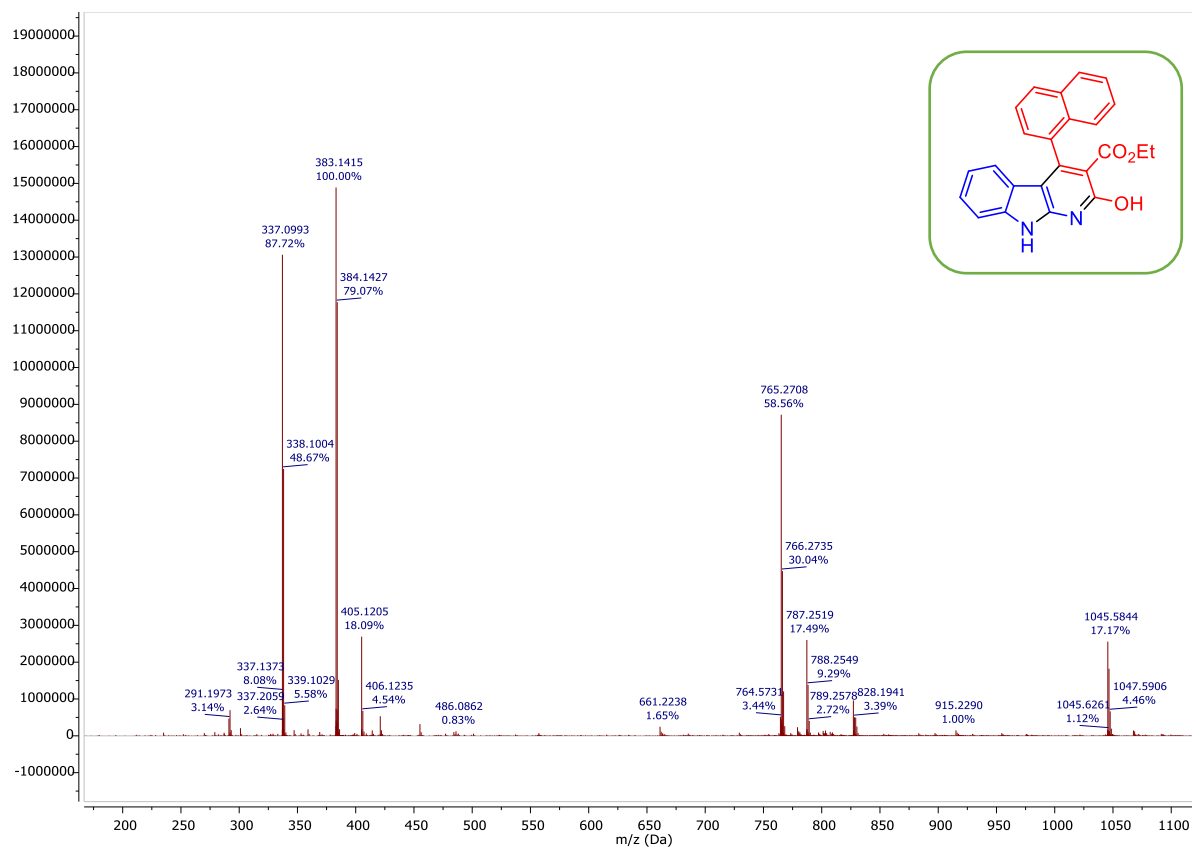
### HRMS spectrum of compound 3r



### HRMS spectrum of compound 3s



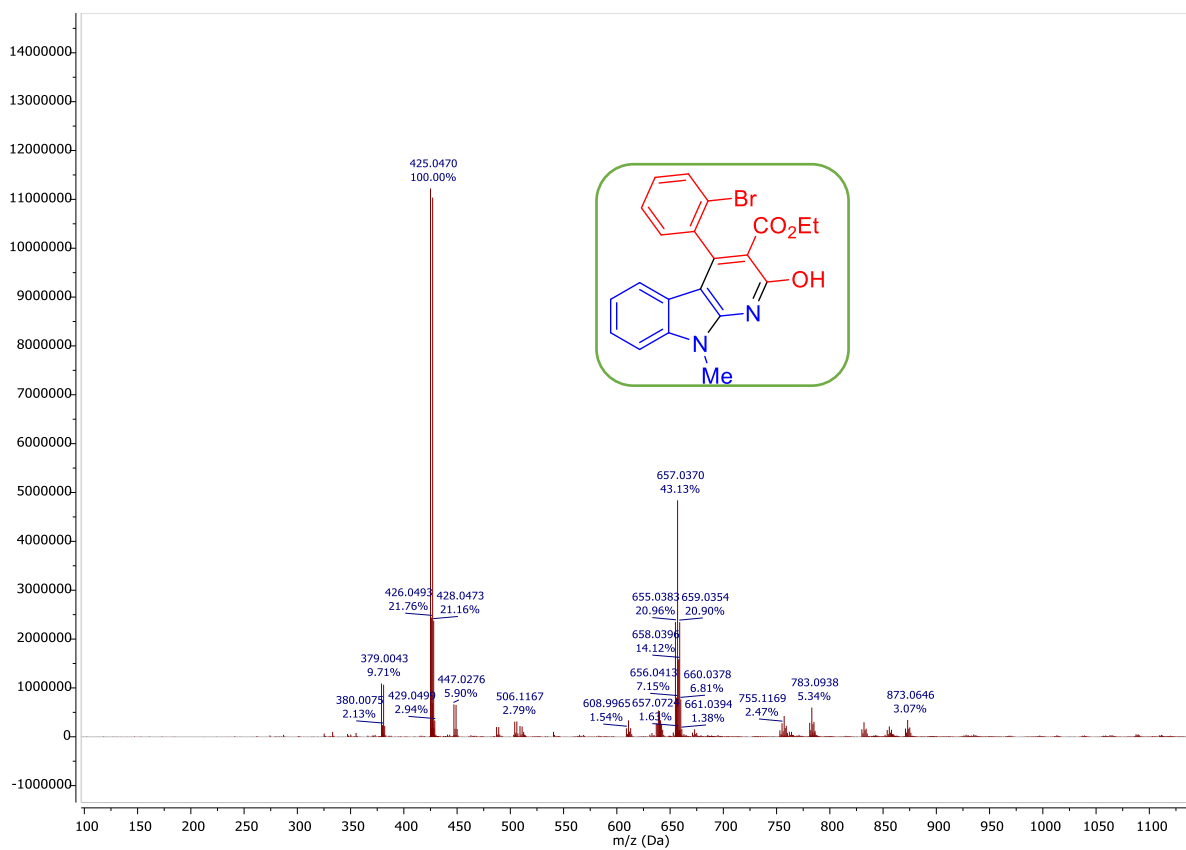
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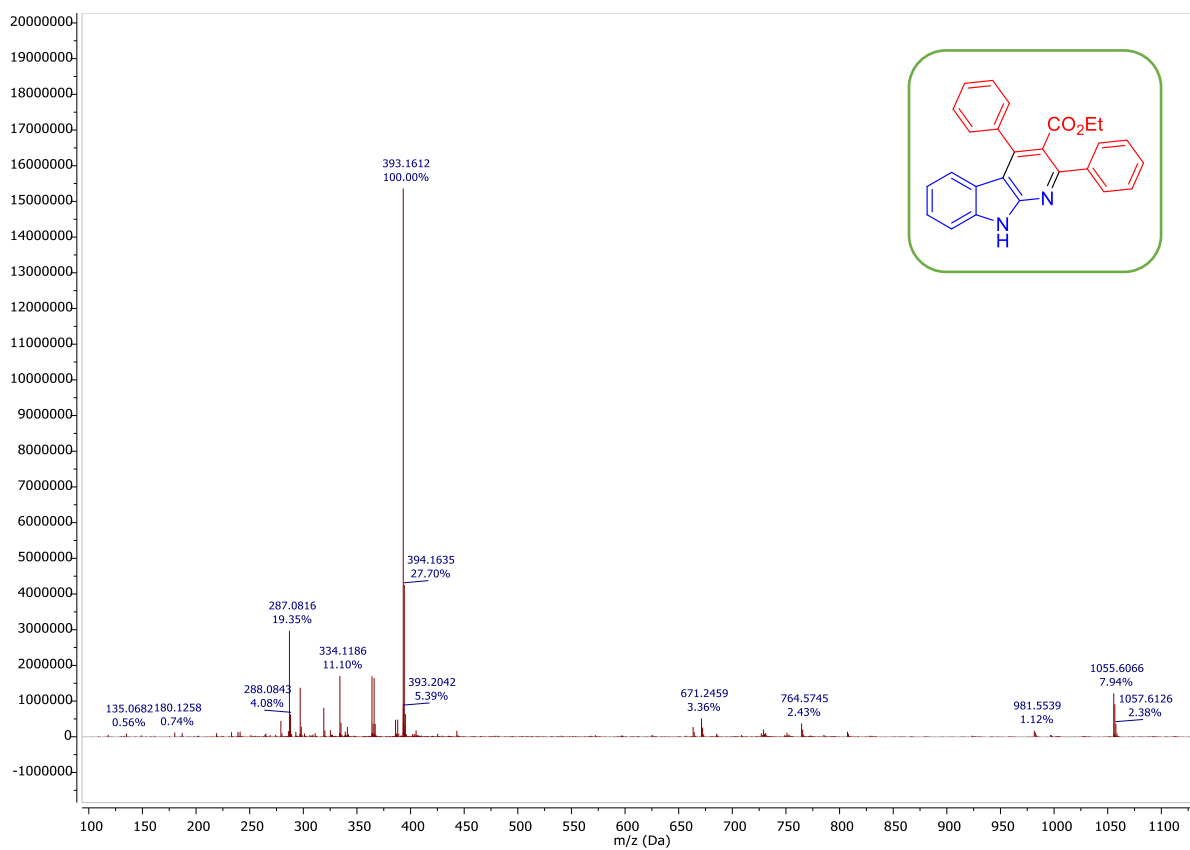
# HRMS spectrum of compound 3u



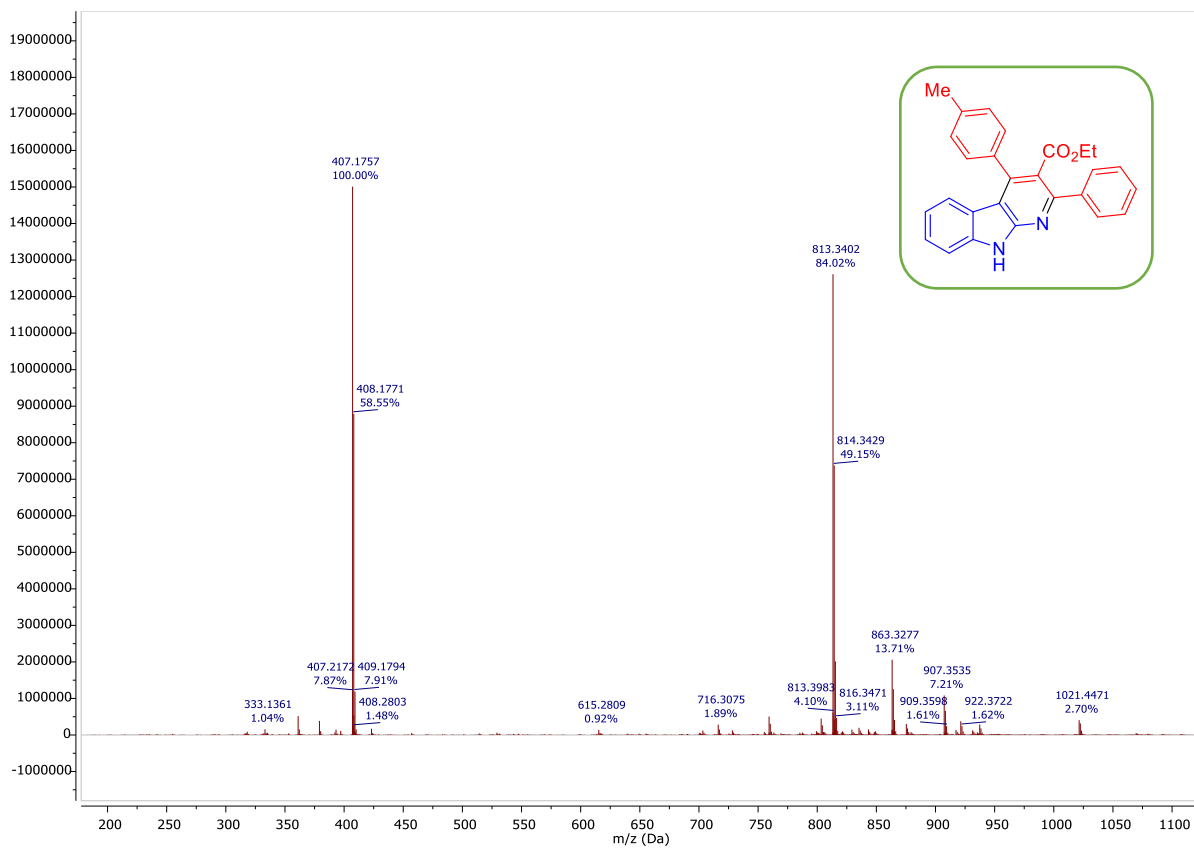
# HRMS spectrum of compound 3v



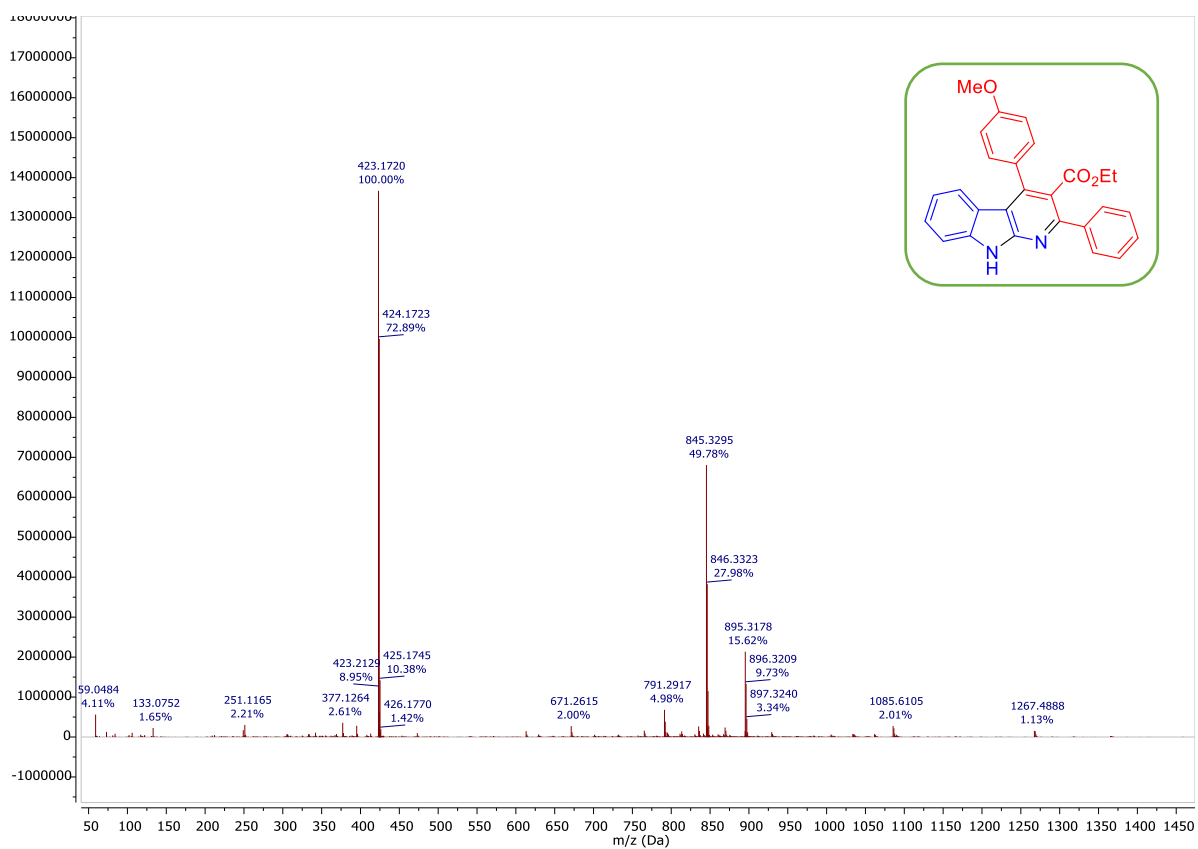
### HRMS spectrum of compound **5a**



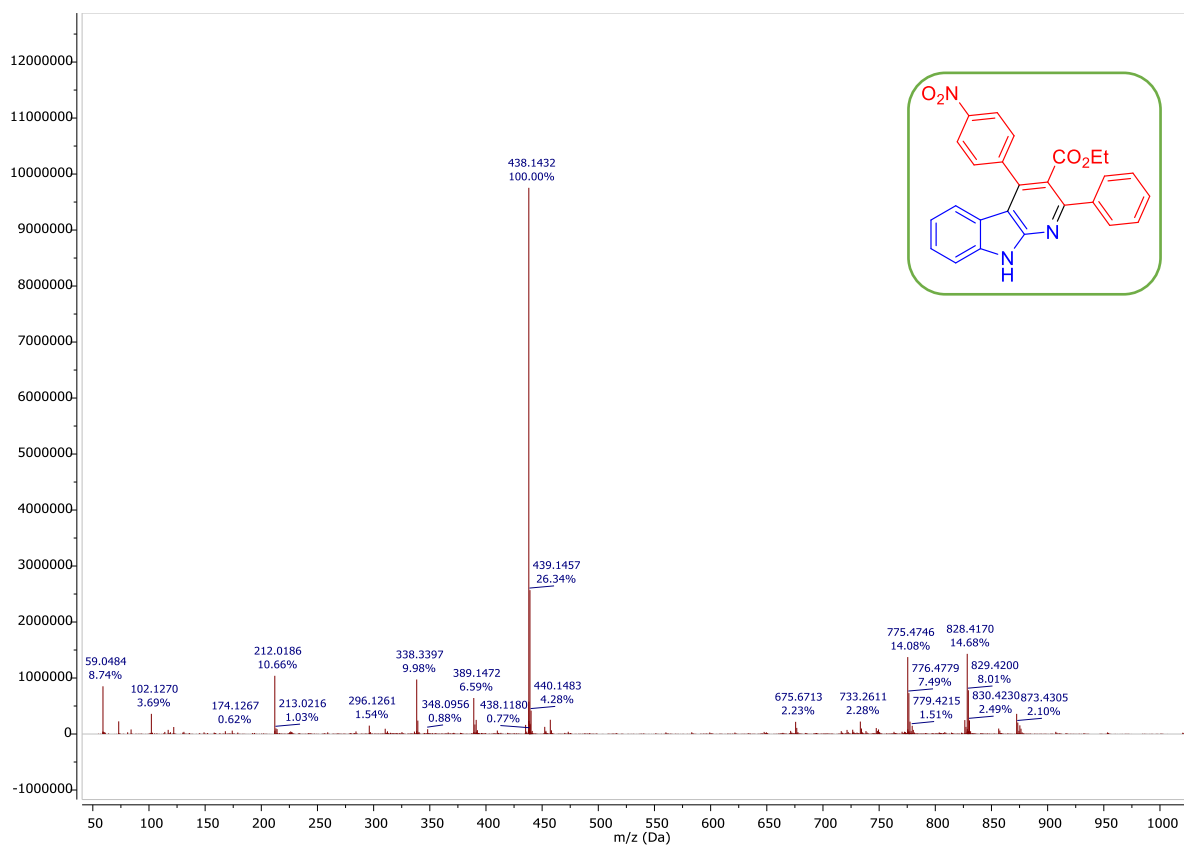
### HRMS spectrum of compound **5b**



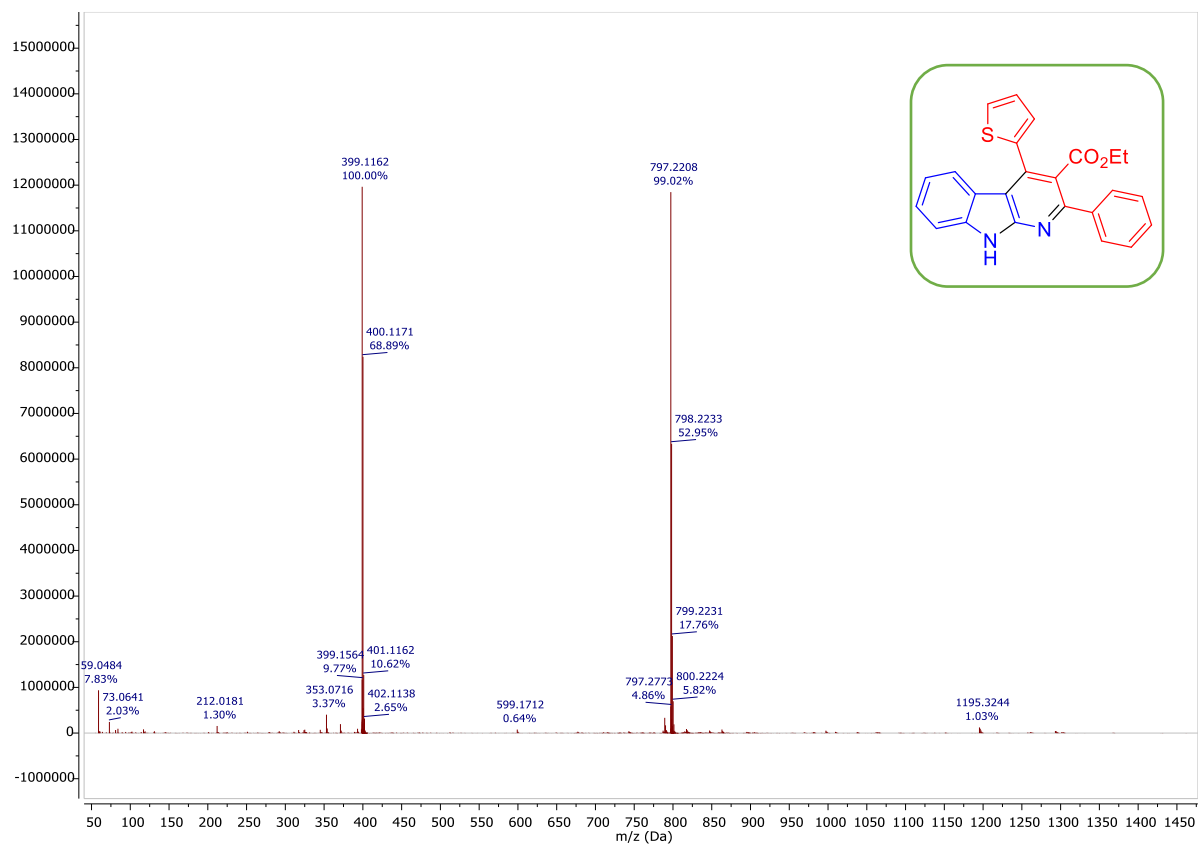
# HRMS spectrum of compound 5c



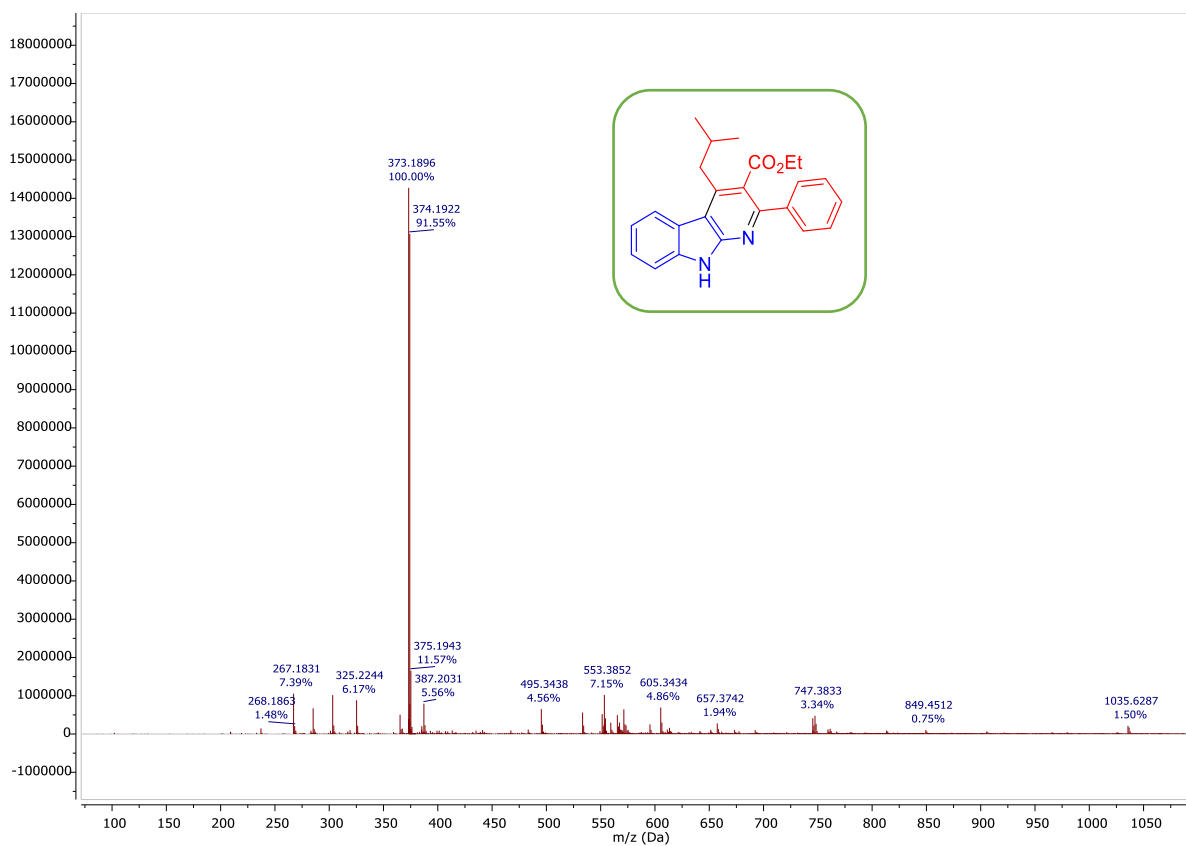
# HRMS spectrum of compound 5d



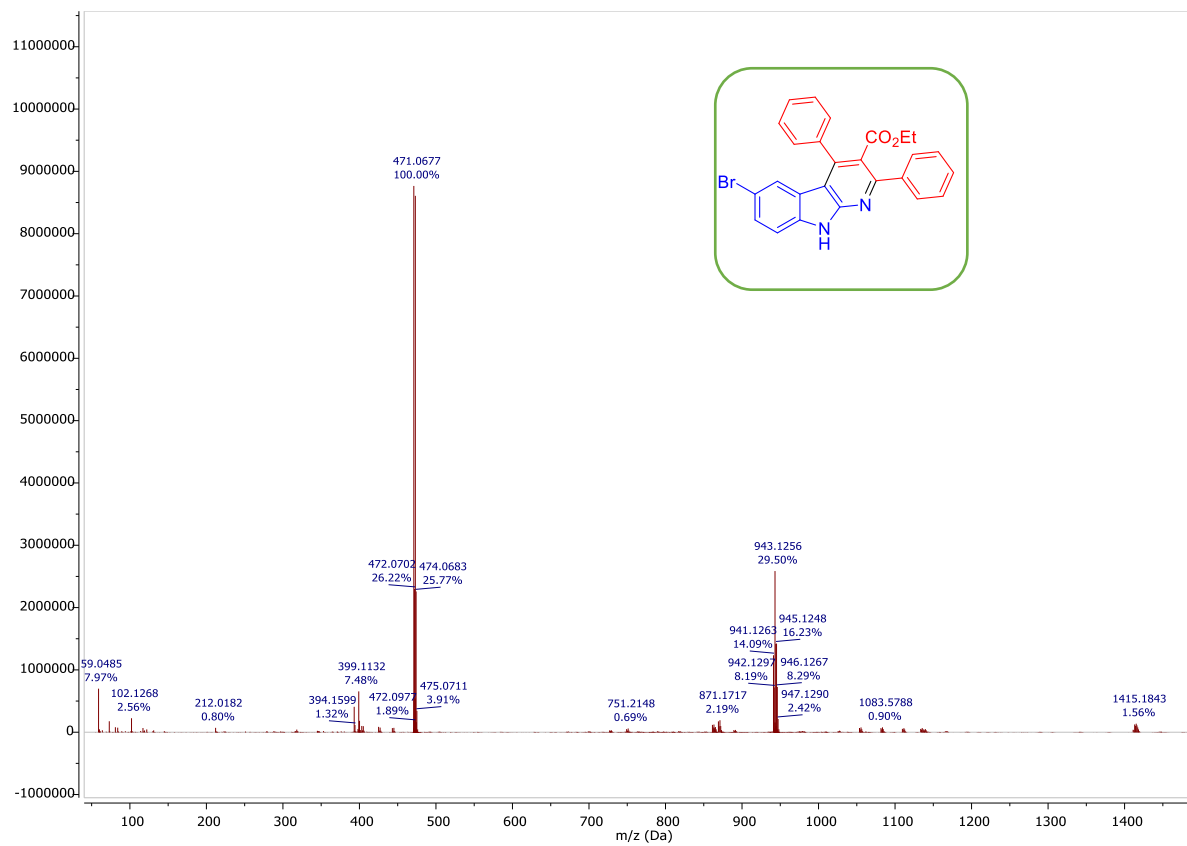
# HRMS spectrum of compound 5e



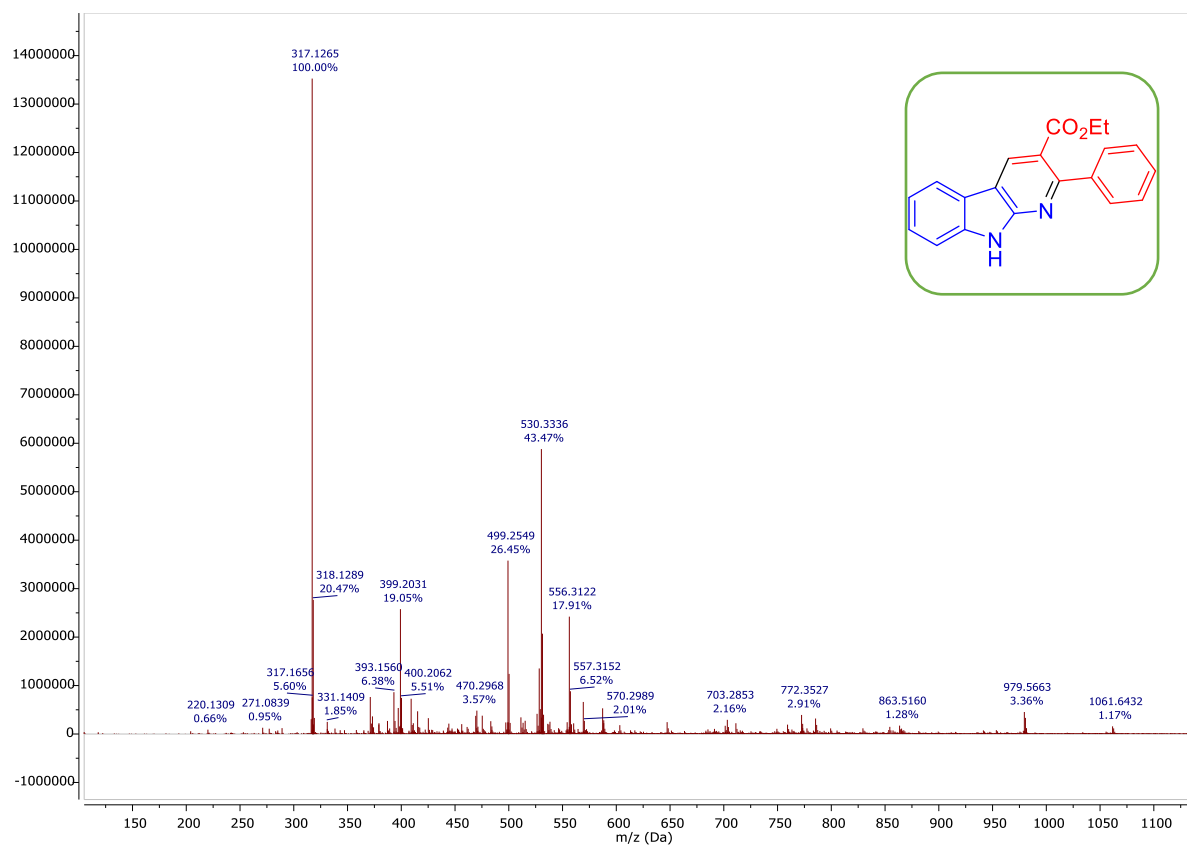
# HRMS spectrum of compound 5f



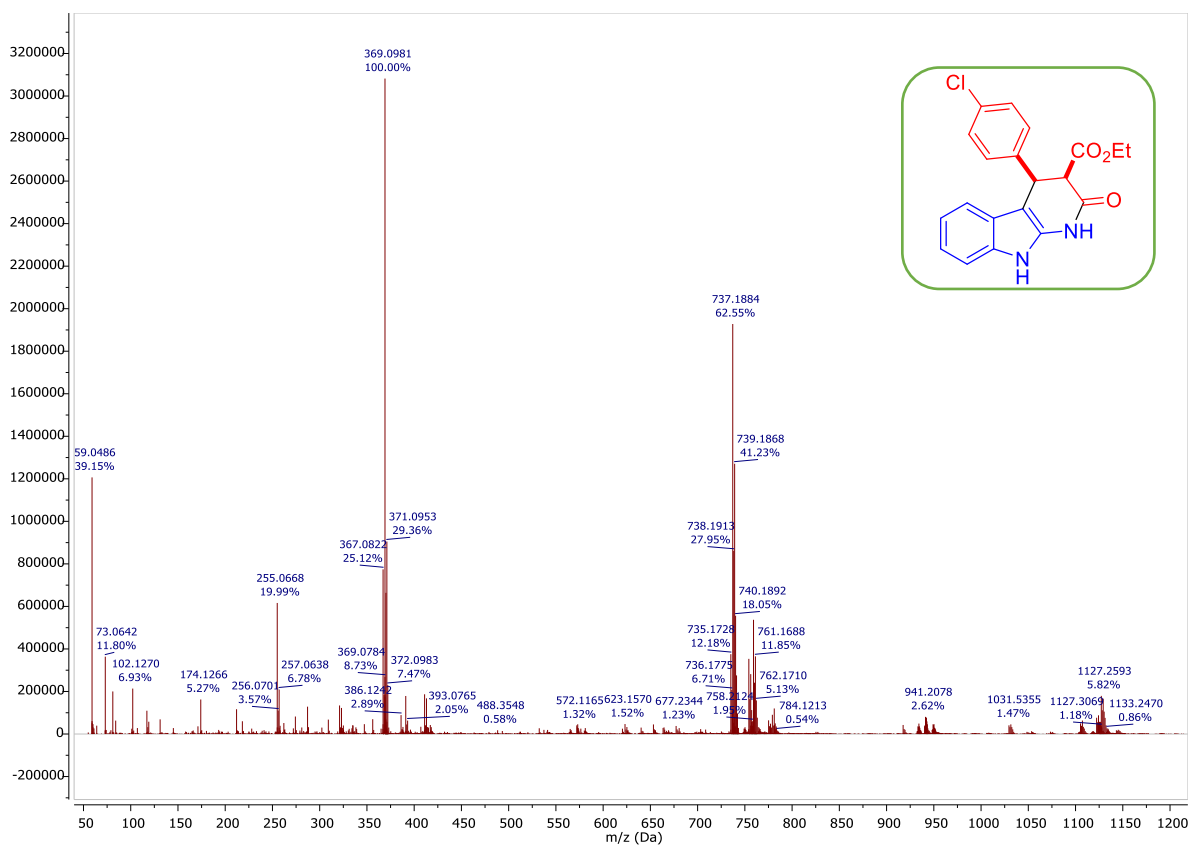
### HRMS spectrum of compound **5g**



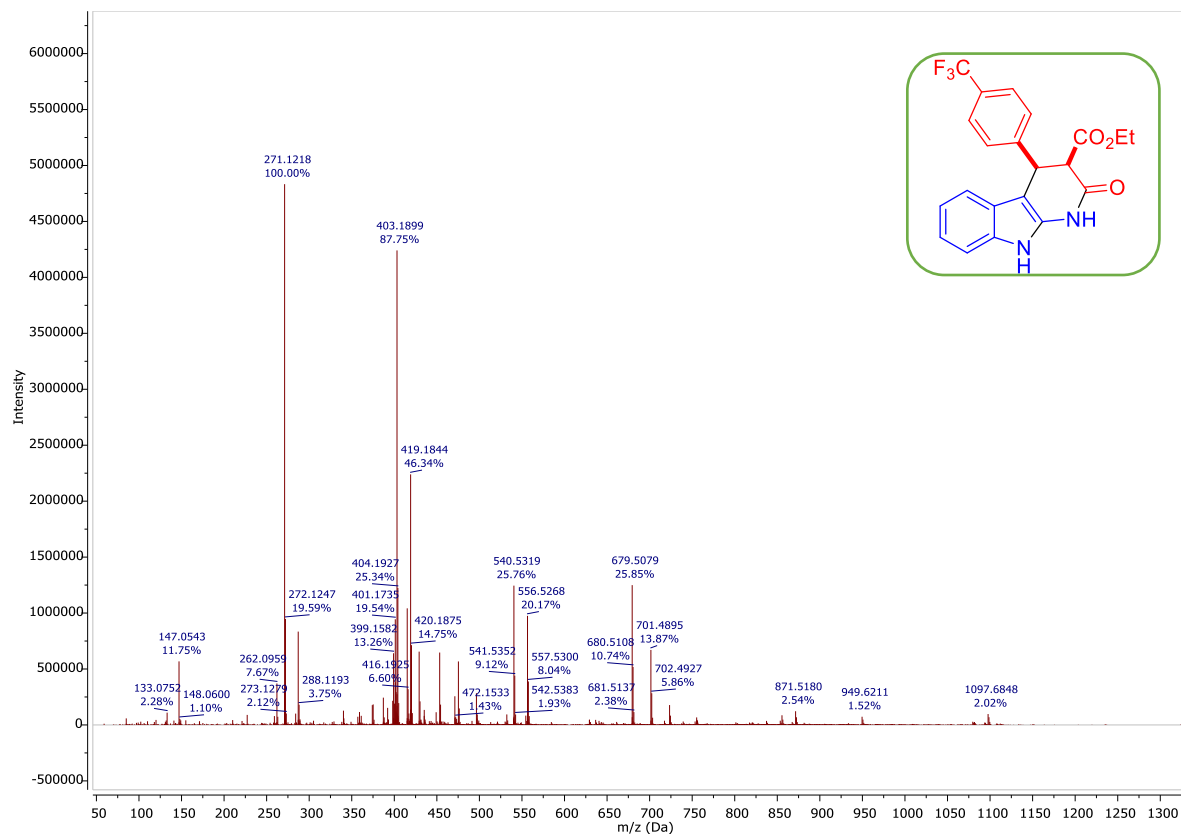
### HRMS spectrum of compound **5h**



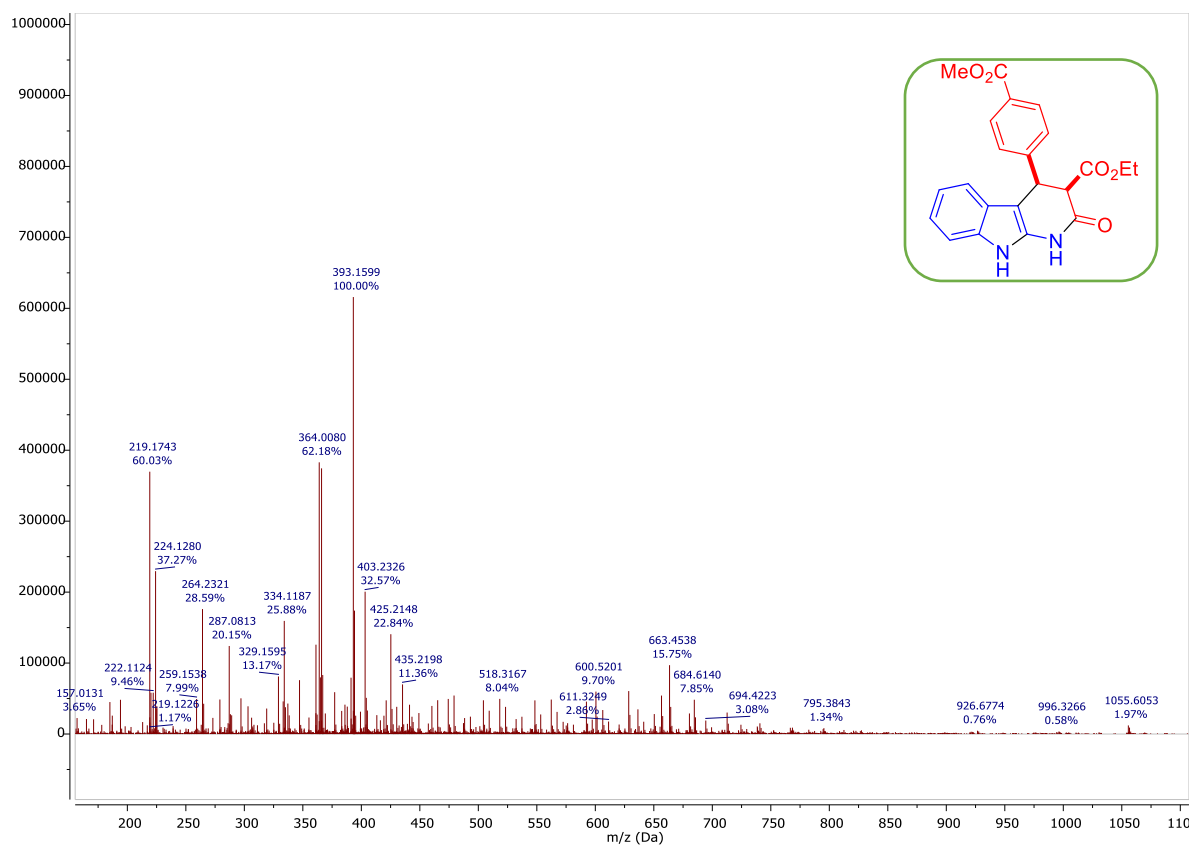
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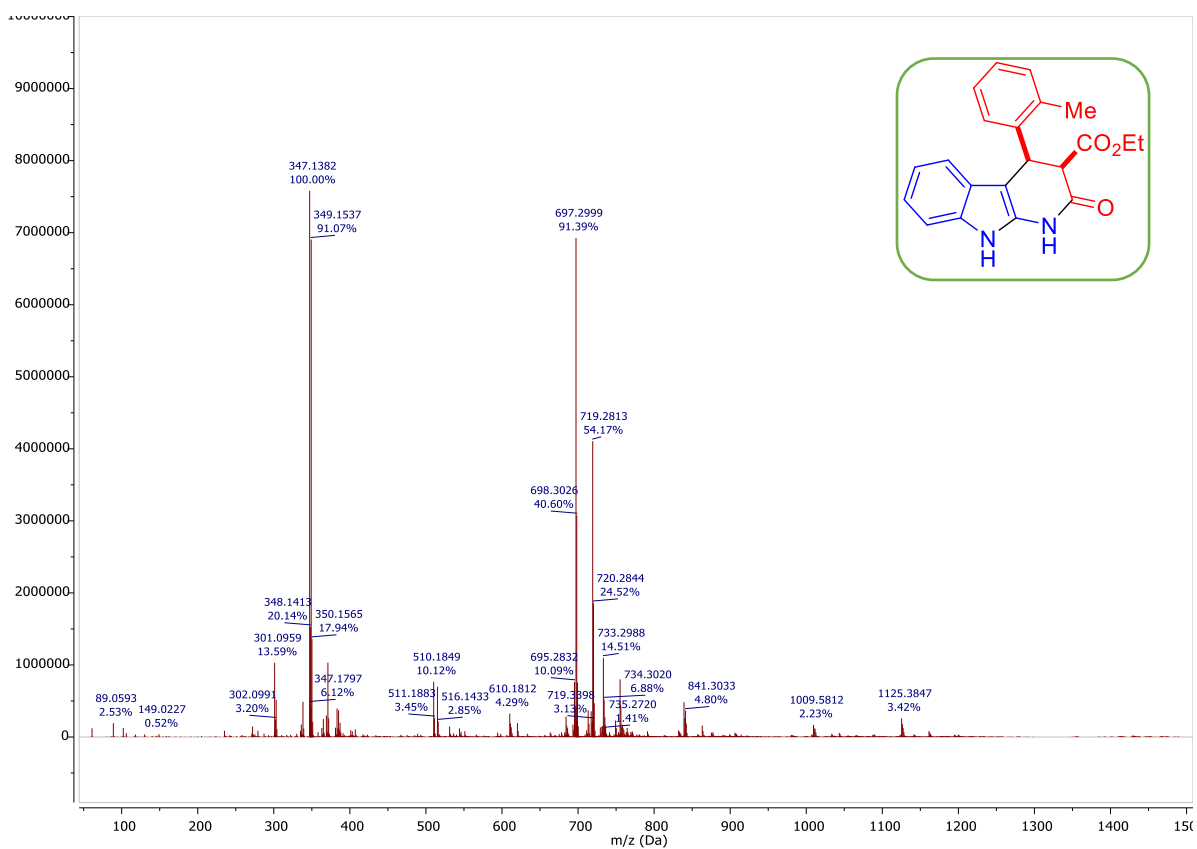
### HRMS spectrum of compound **6b**



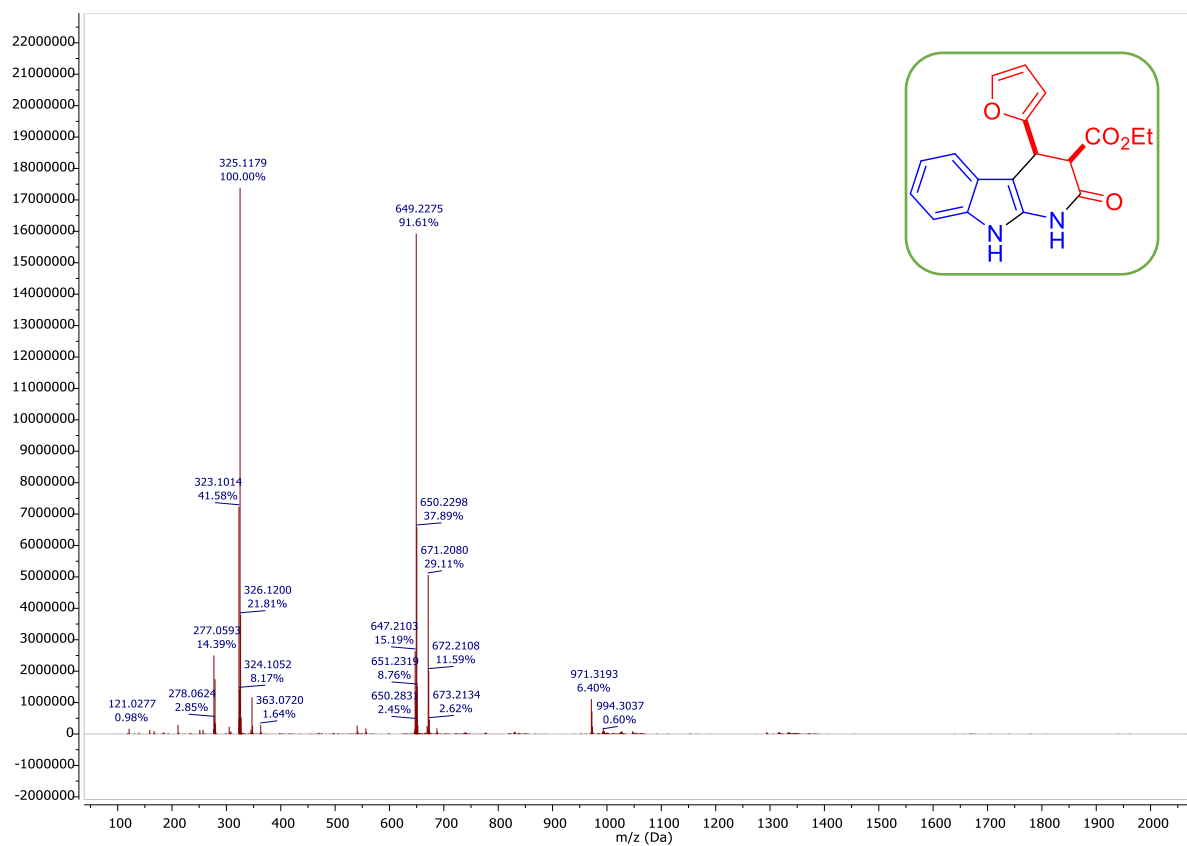
# HRMS spectrum of compound 6c



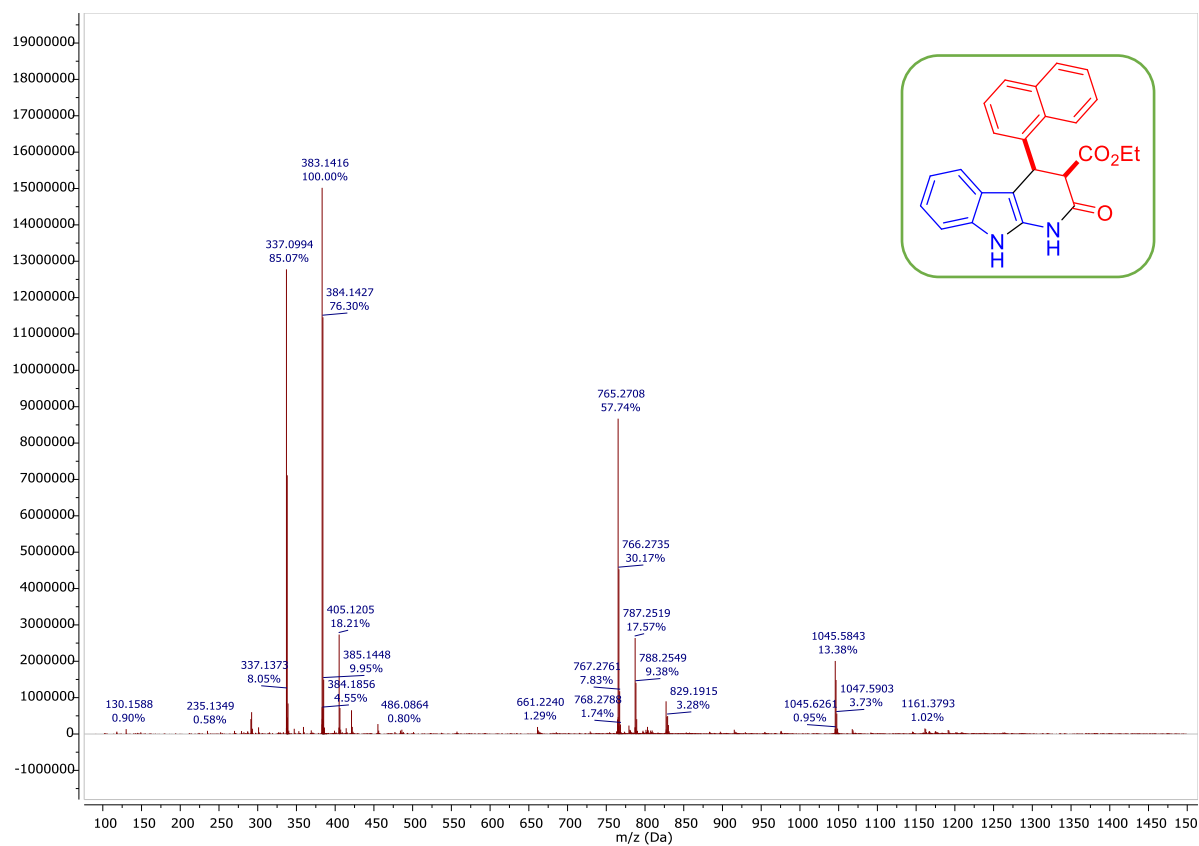
# HRMS spectrum of compound 6d



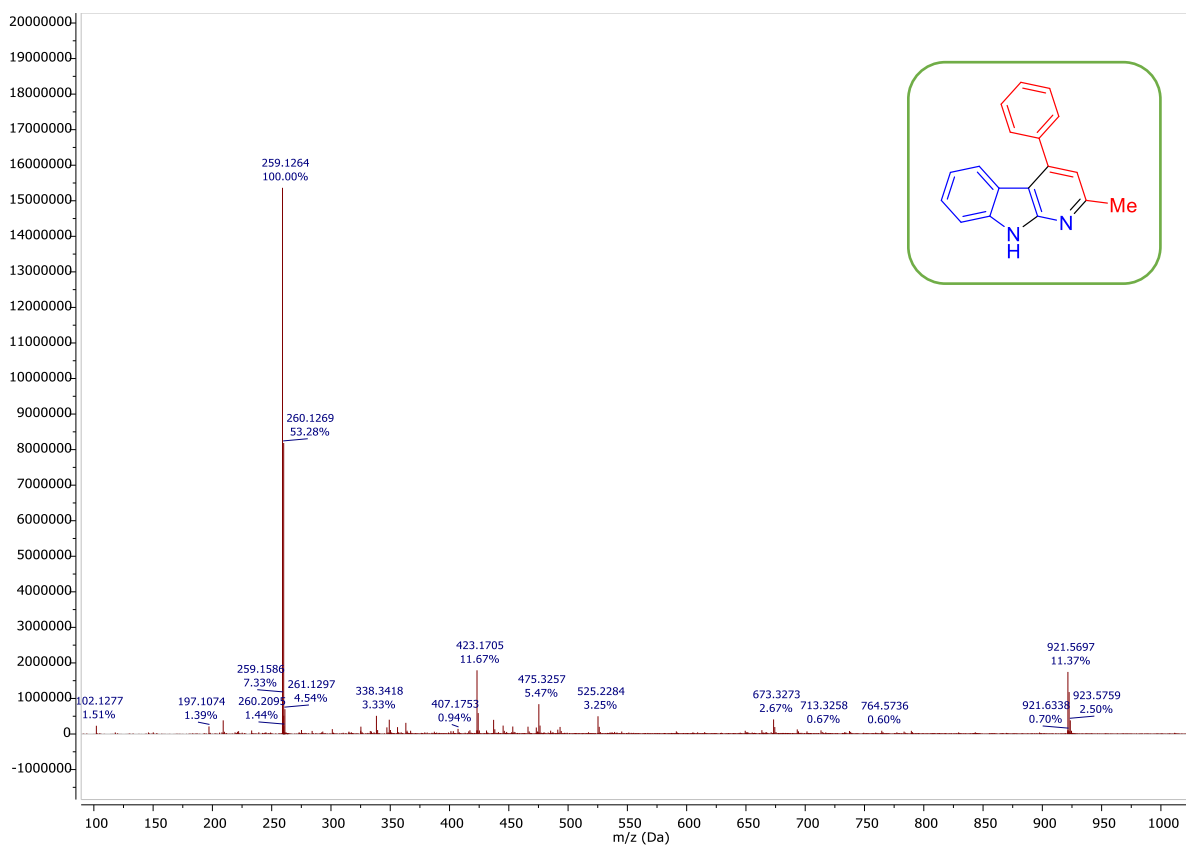
# HRMS spectrum of compound 6e



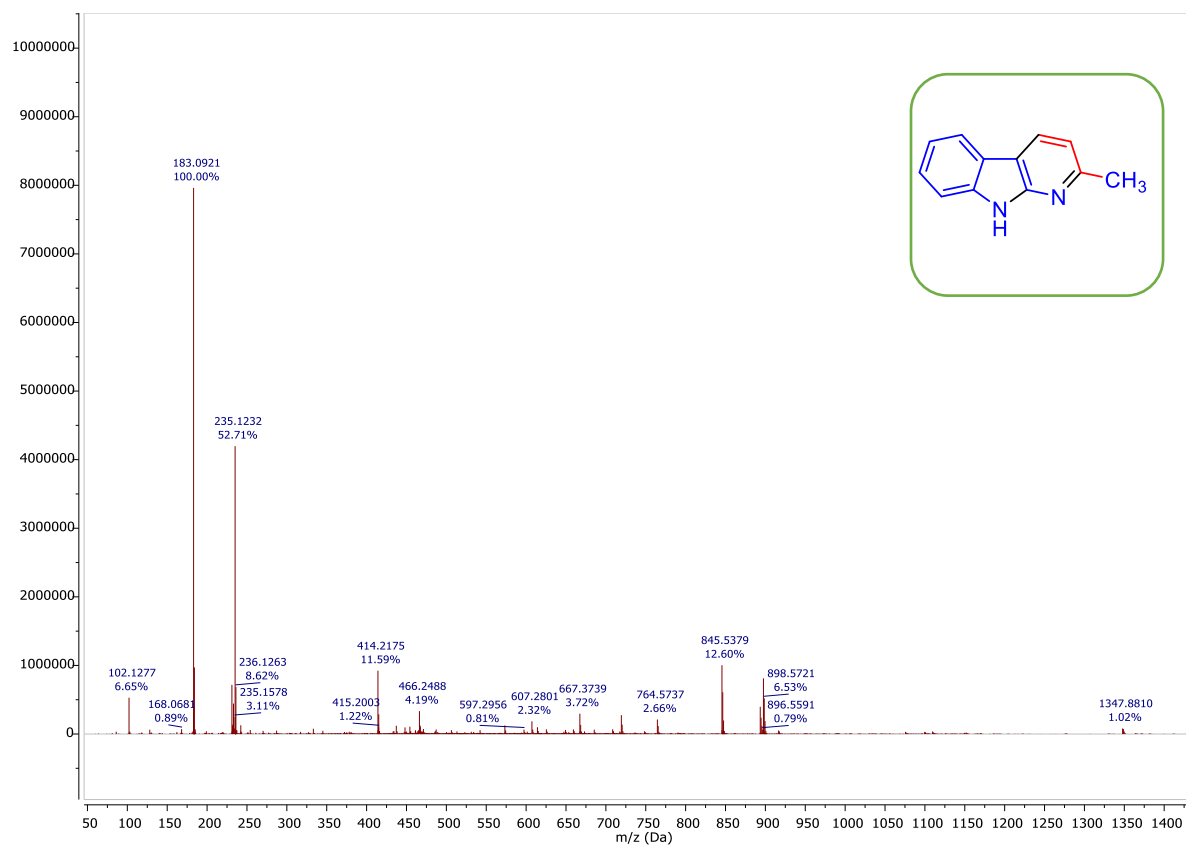
# HRMS spectrum of compound **6f**



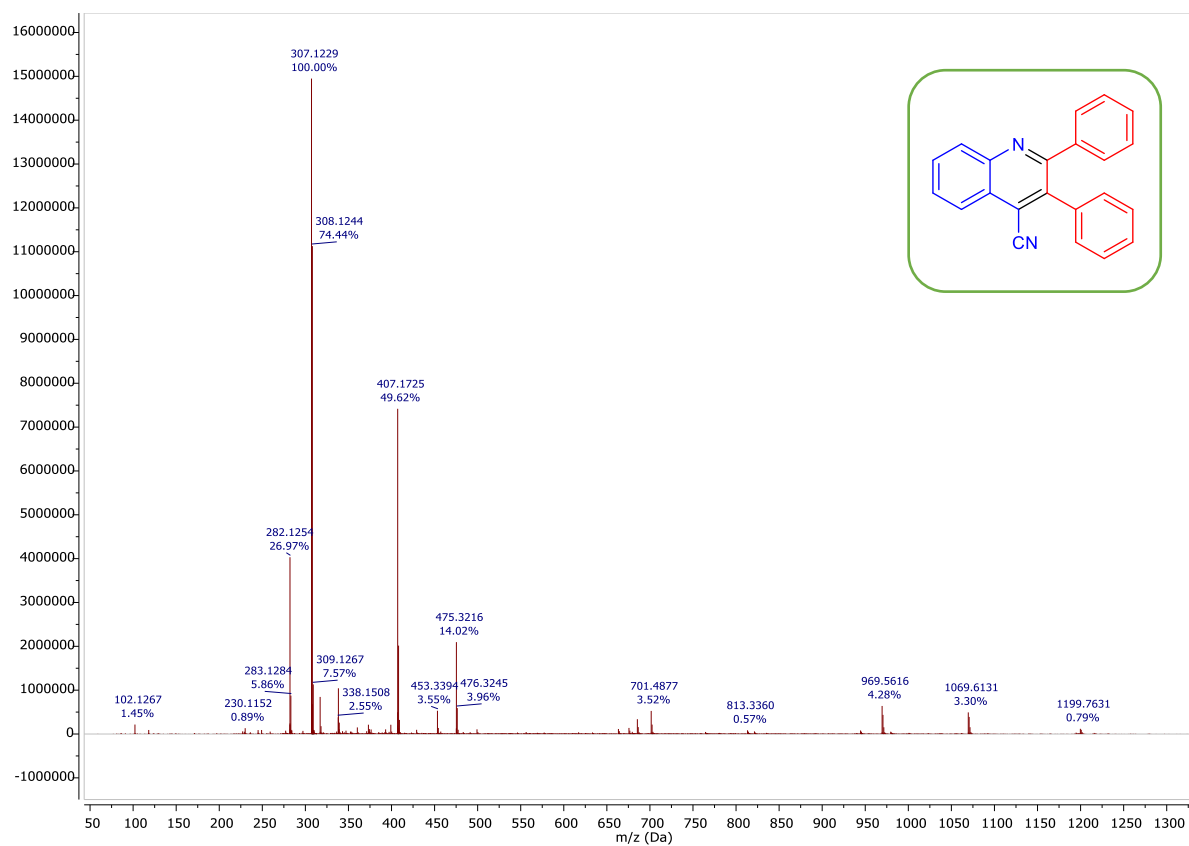
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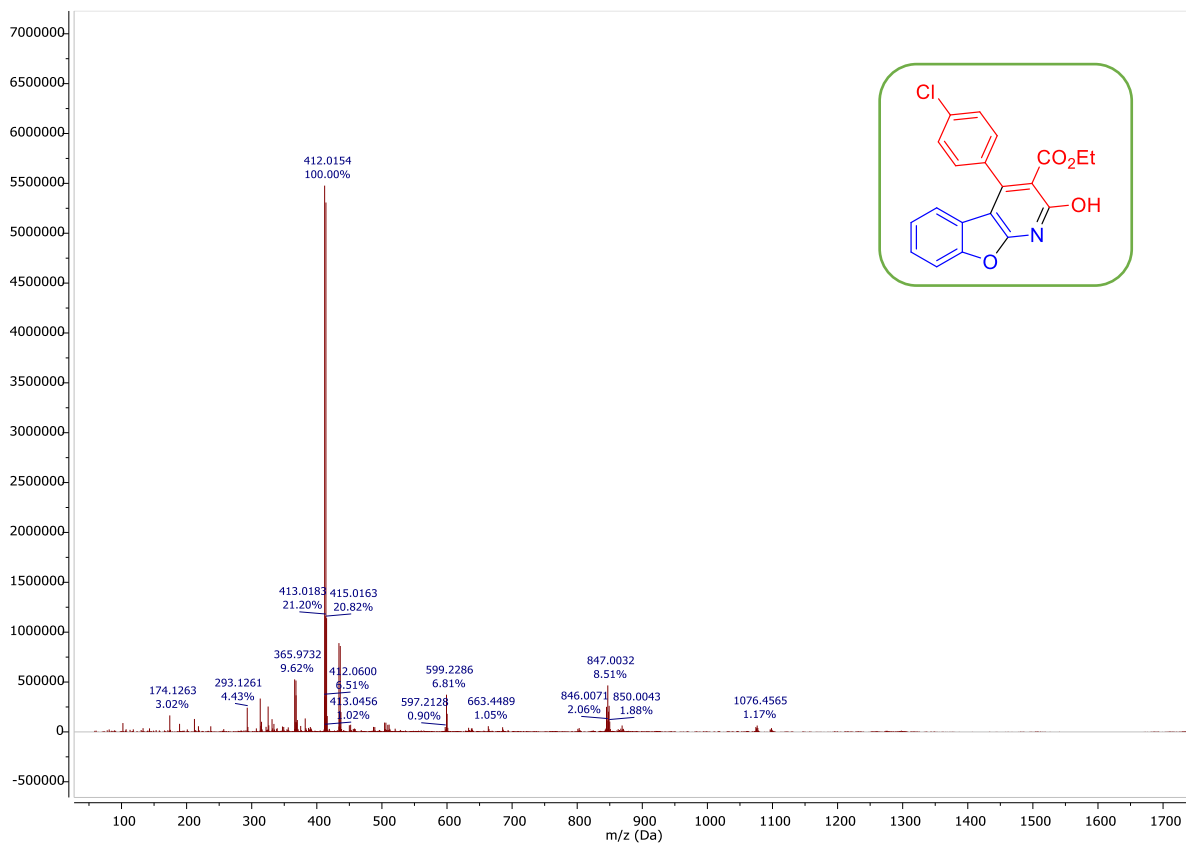
# HRMS spectrum of compound **8b**



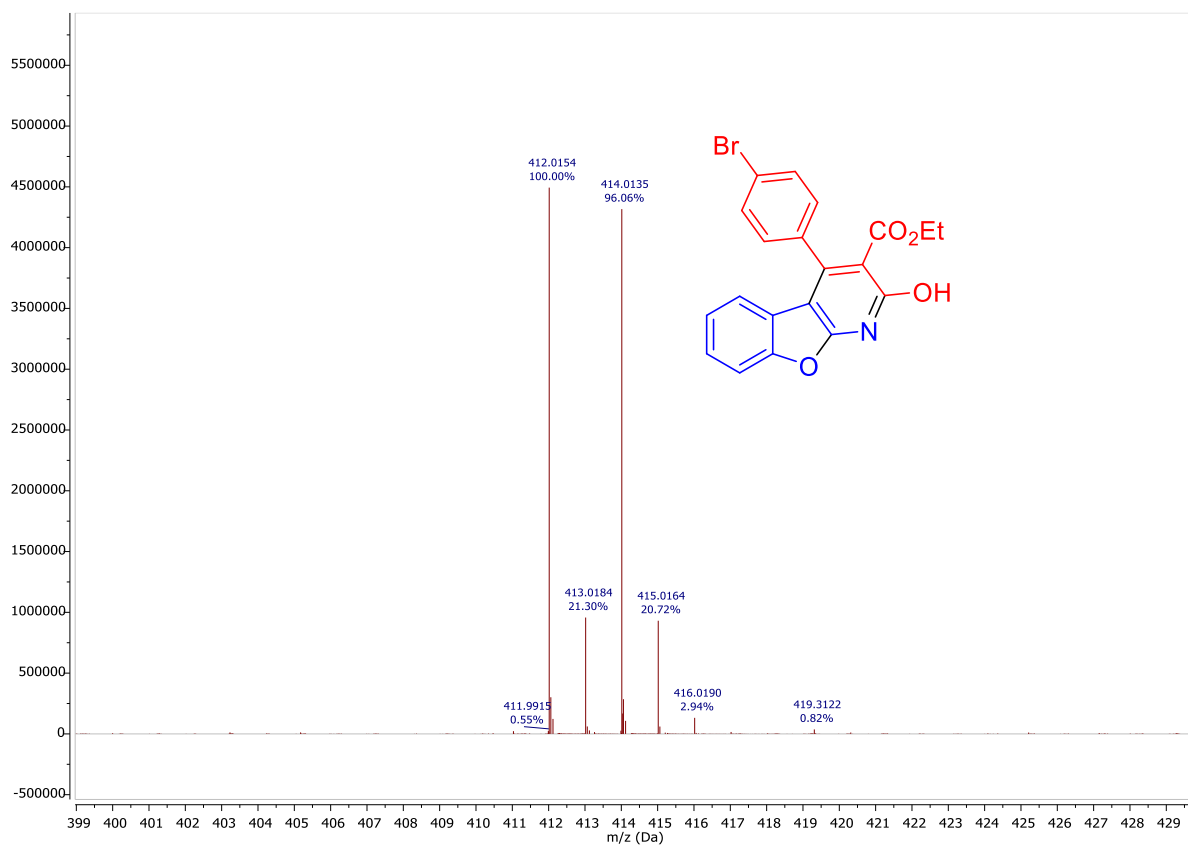
### HRMS spectrum of compound **8c**



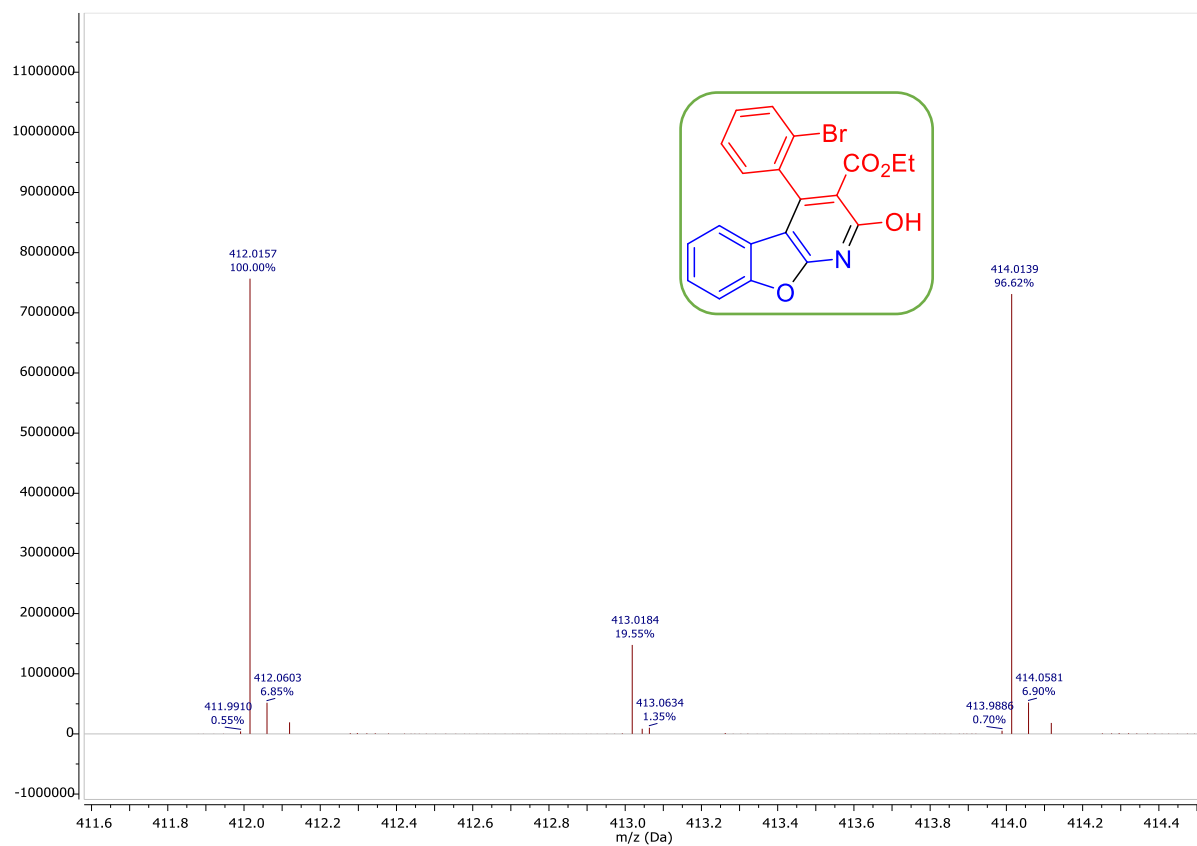
# HRMS spectrum of compound 10a



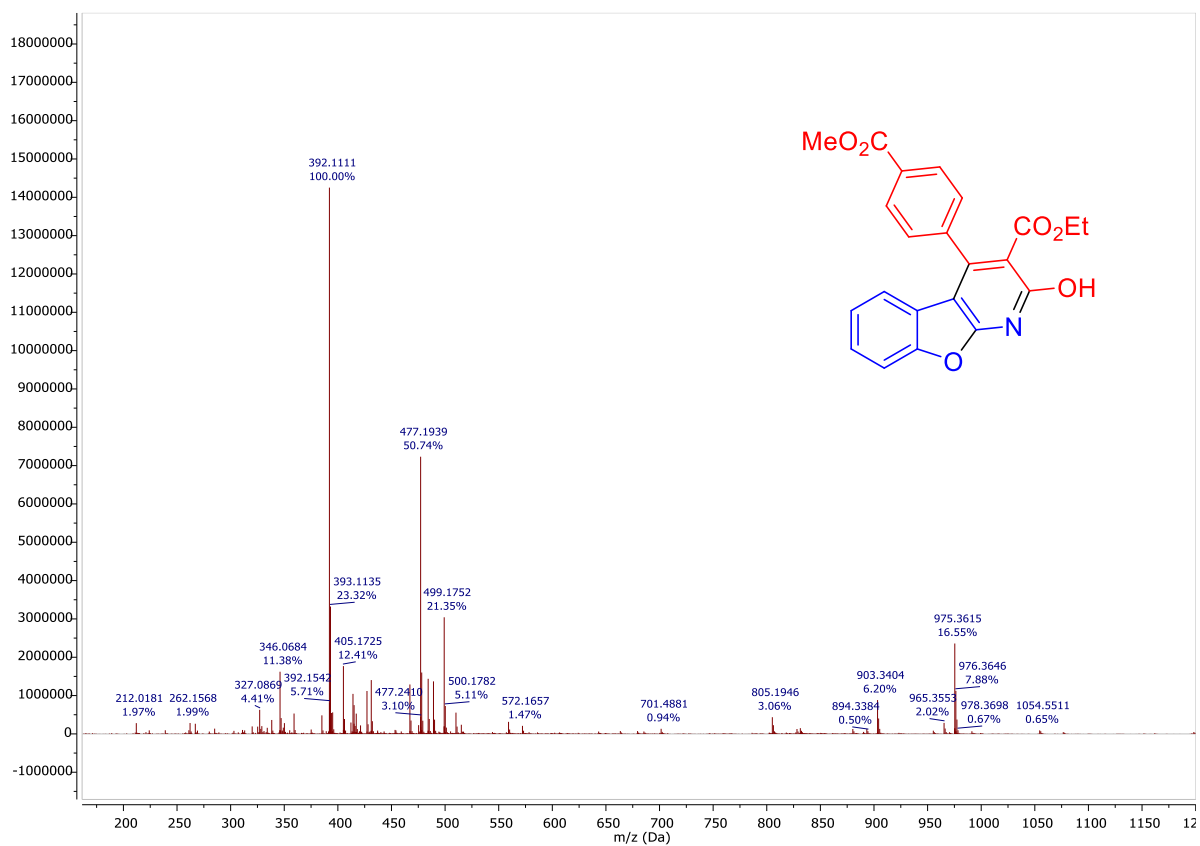
# HRMS spectrum of compound **10b**



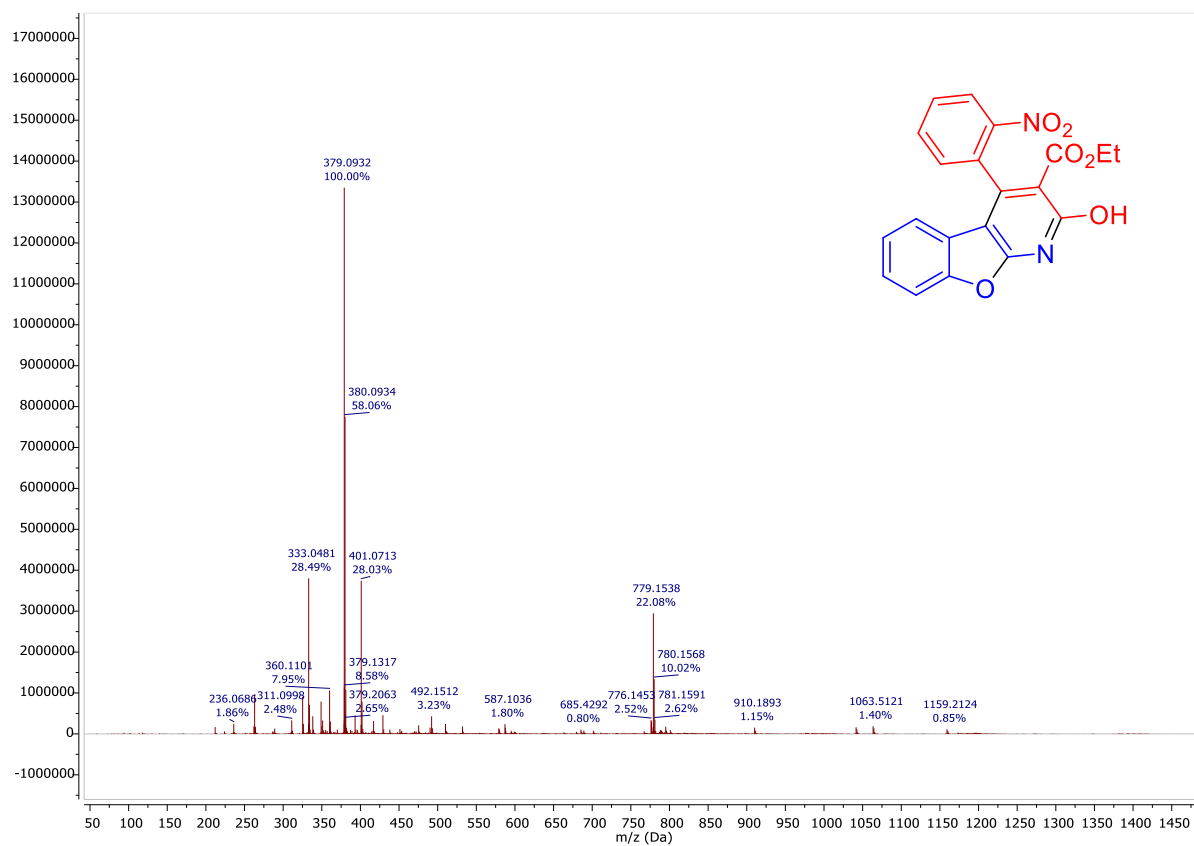
# HRMS spectrum of compound 10c



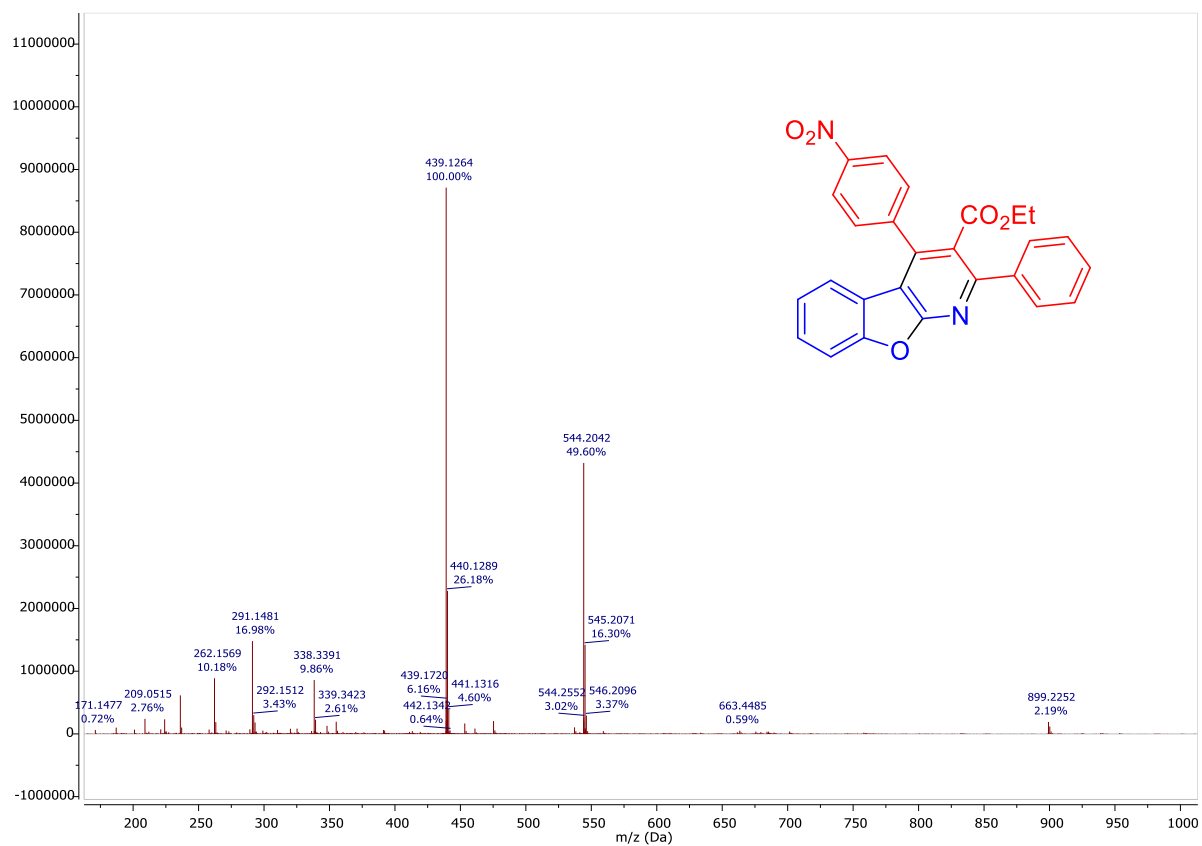
# HRMS spectrum of compound 10d



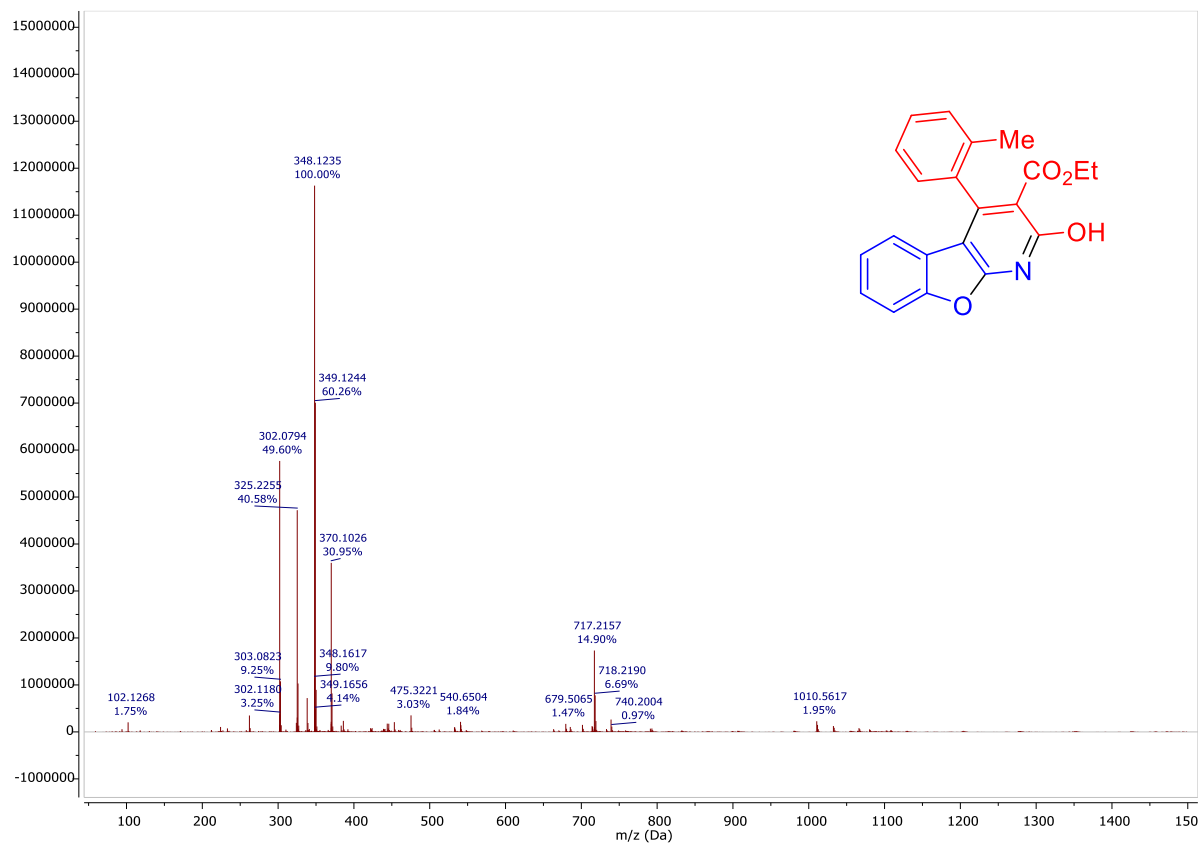
# HRMS spectrum of compound 10e



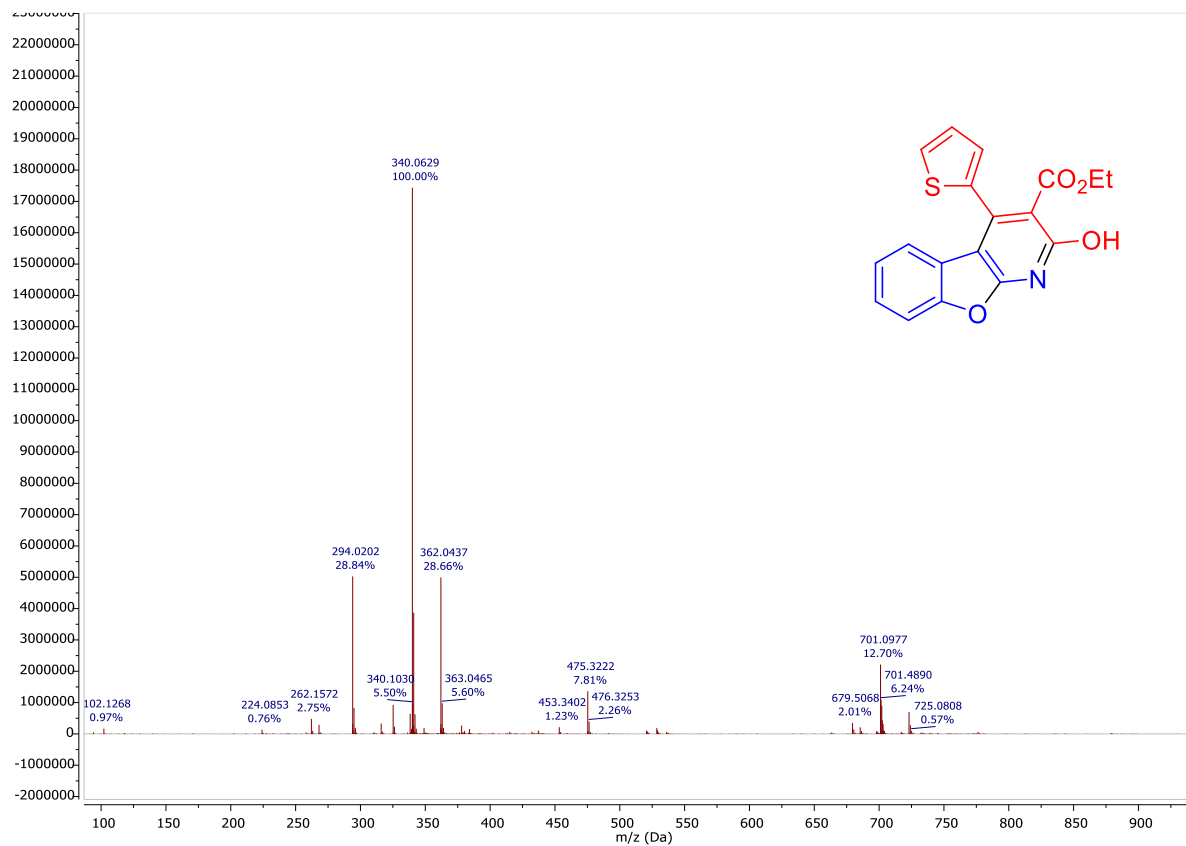
# HRMS spectrum of compound **10f**



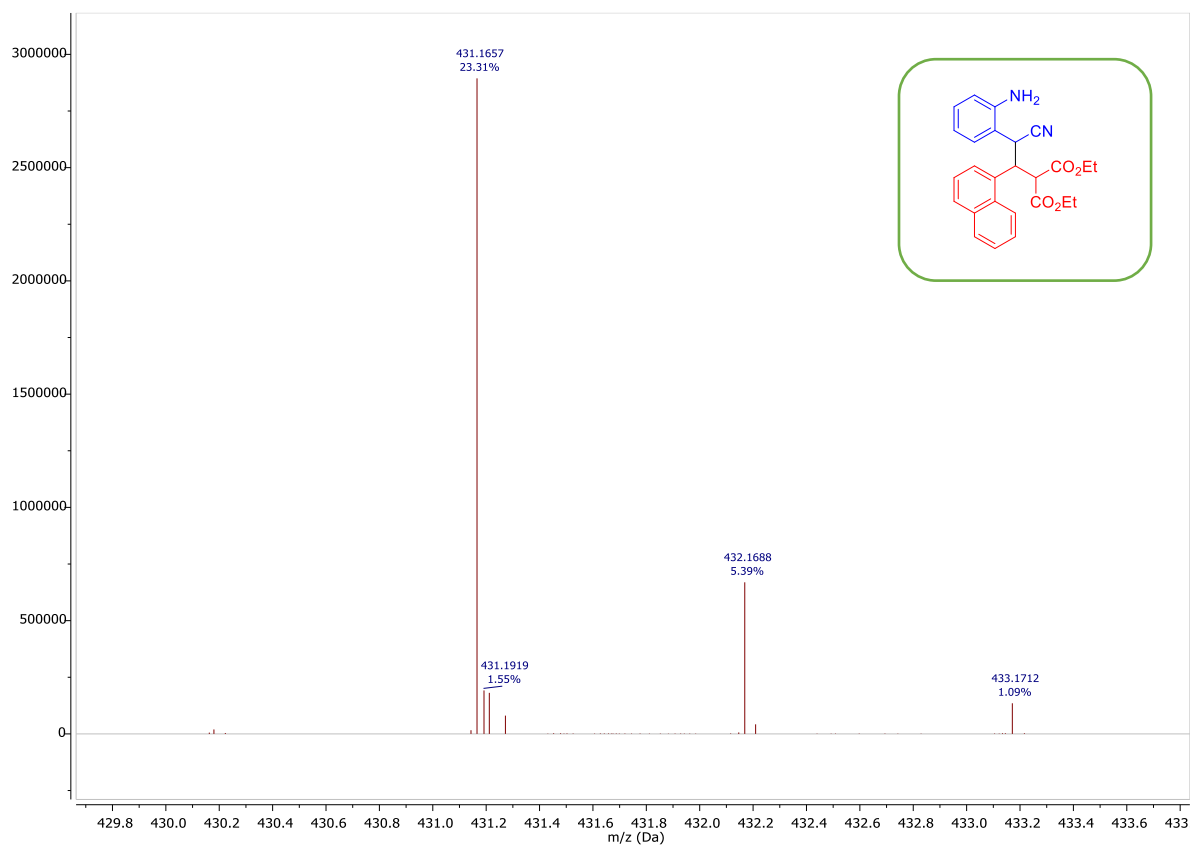
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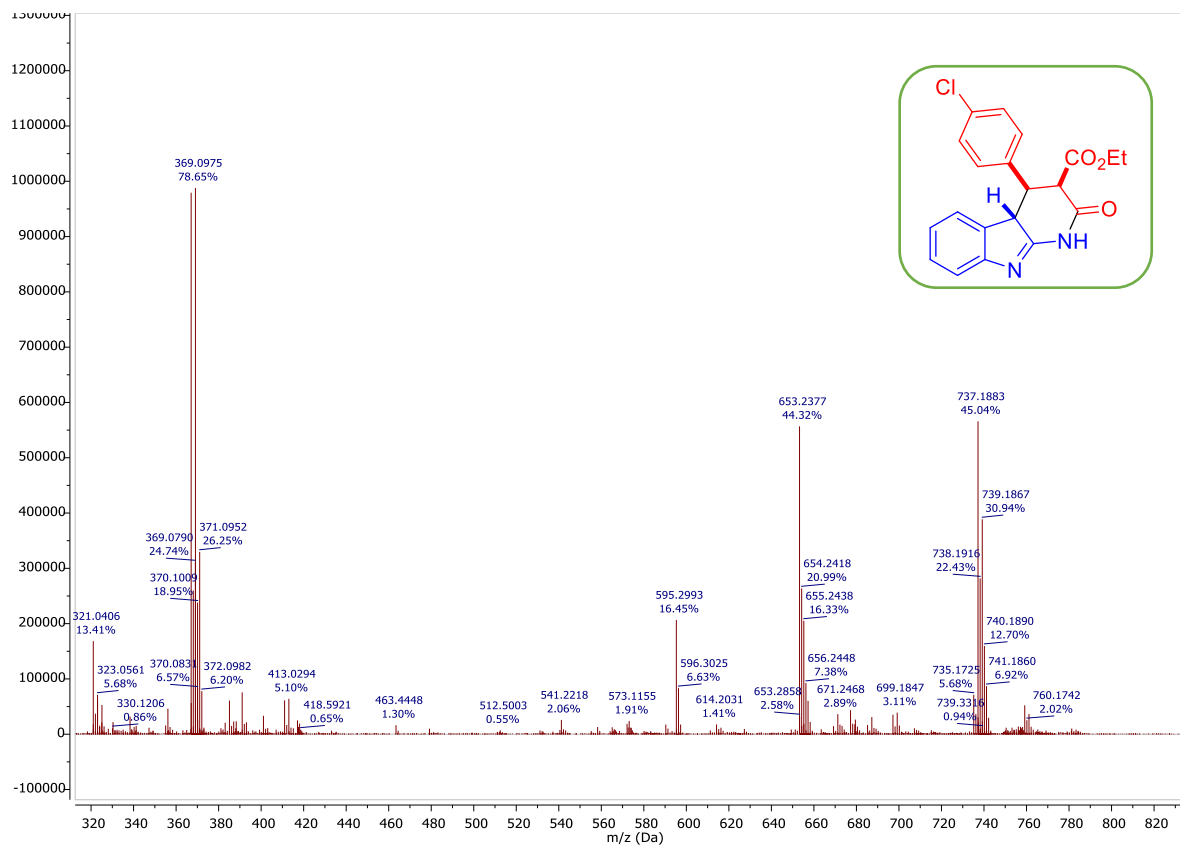
# HRMS spectrum of compound 10h



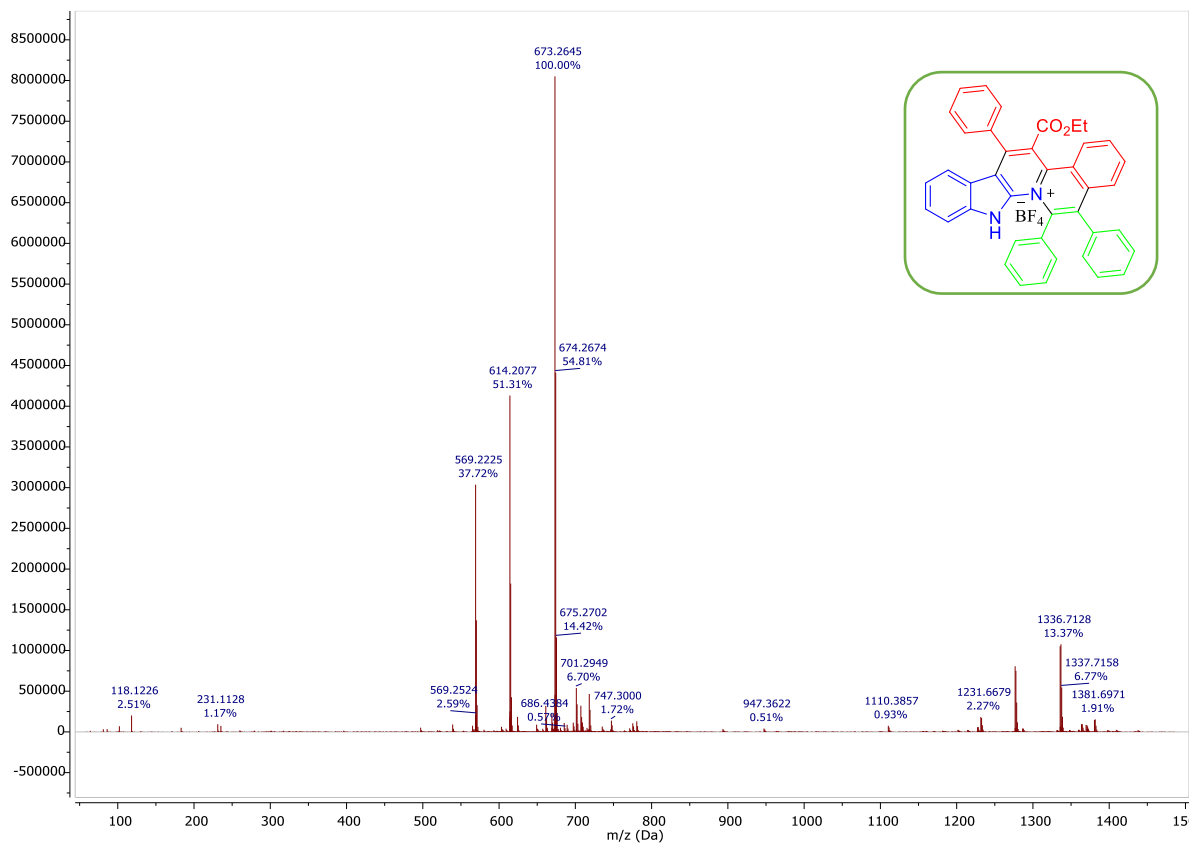
# HRMS spectrum of compound 11a



# HRMS spectrum of compound 12



# HRMS spectrum of compound 13a



# HRMS spectrum of compound **13b**

