Supplementary Material (ESI) for Chemical Communications

Supporting Information:

Damage of Aromatic Amino Acids by the Nighttime Atmospheric Oxidant $NO_3^\bullet$

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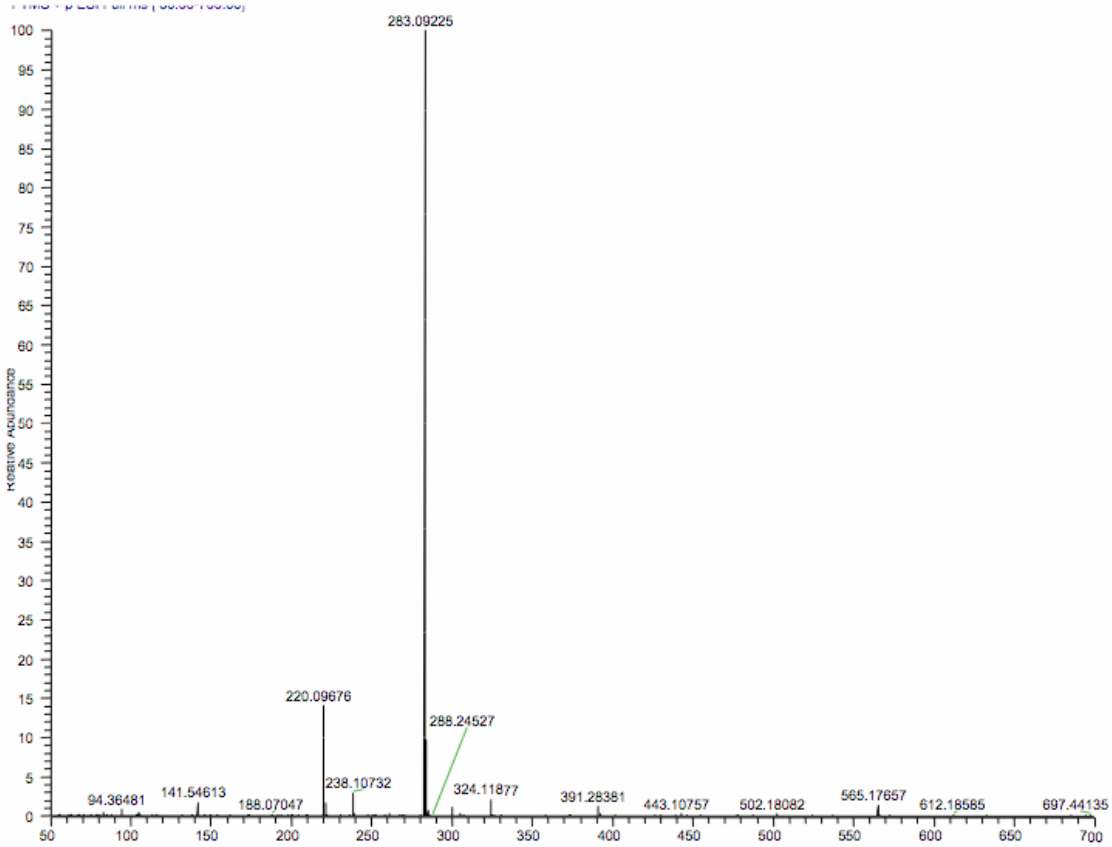
Contents

^{1}H NMR spectra for compounds **1b**, **5a**, **7b** and **14b**. LC/HR-MS(ESI) spectra the products of the reaction of **1**, **2** and **4** with $NO_3^\bullet$.

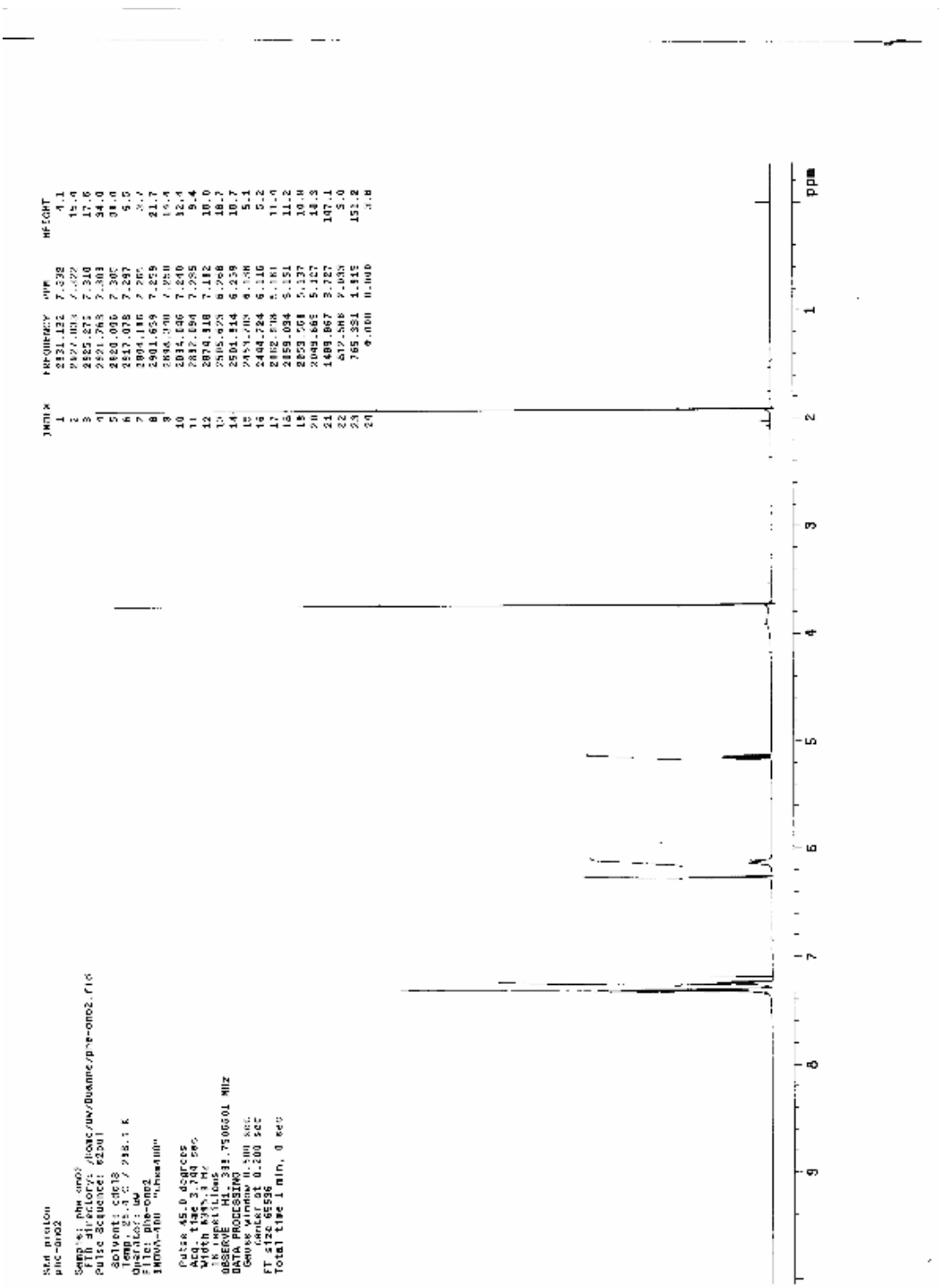
I Reaction of $NO_3^\bullet$ with phenylalanine 1

1) Nitrate ester 5a

HR-MS(ESI)

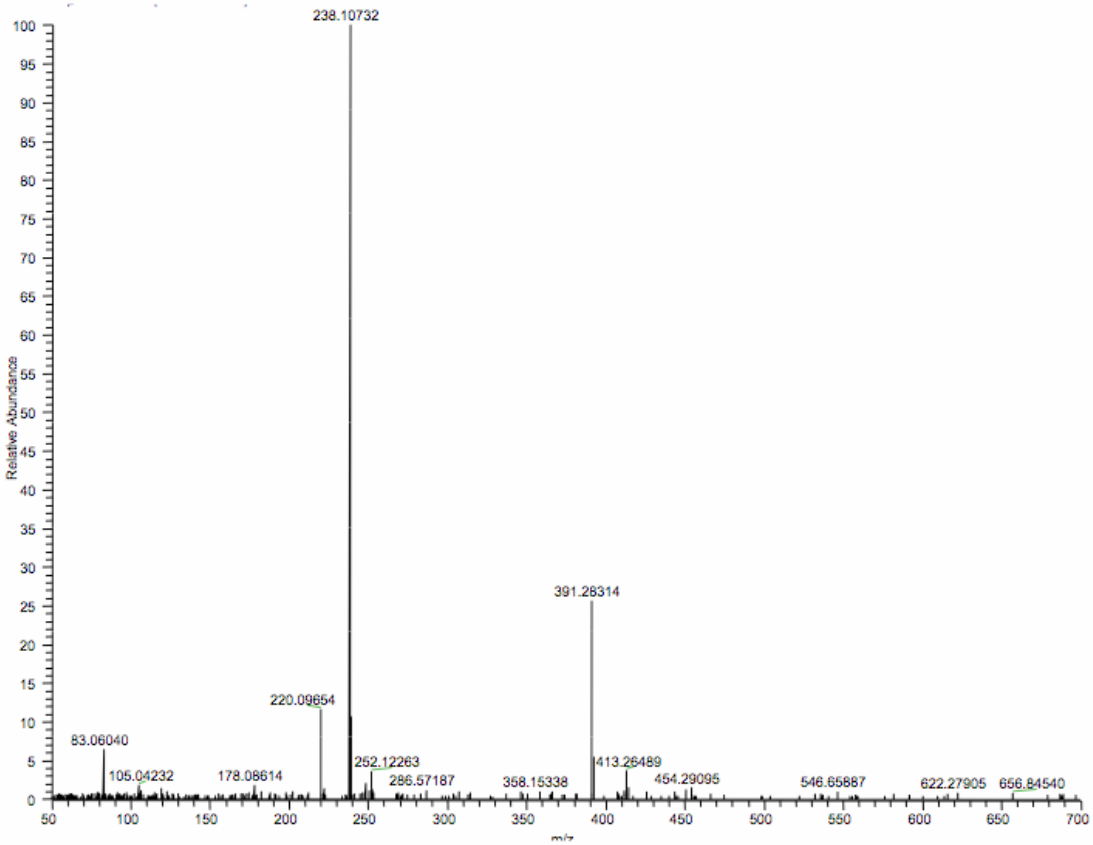


^{1}H NMR ($CDCl_3$, 400 MHz)



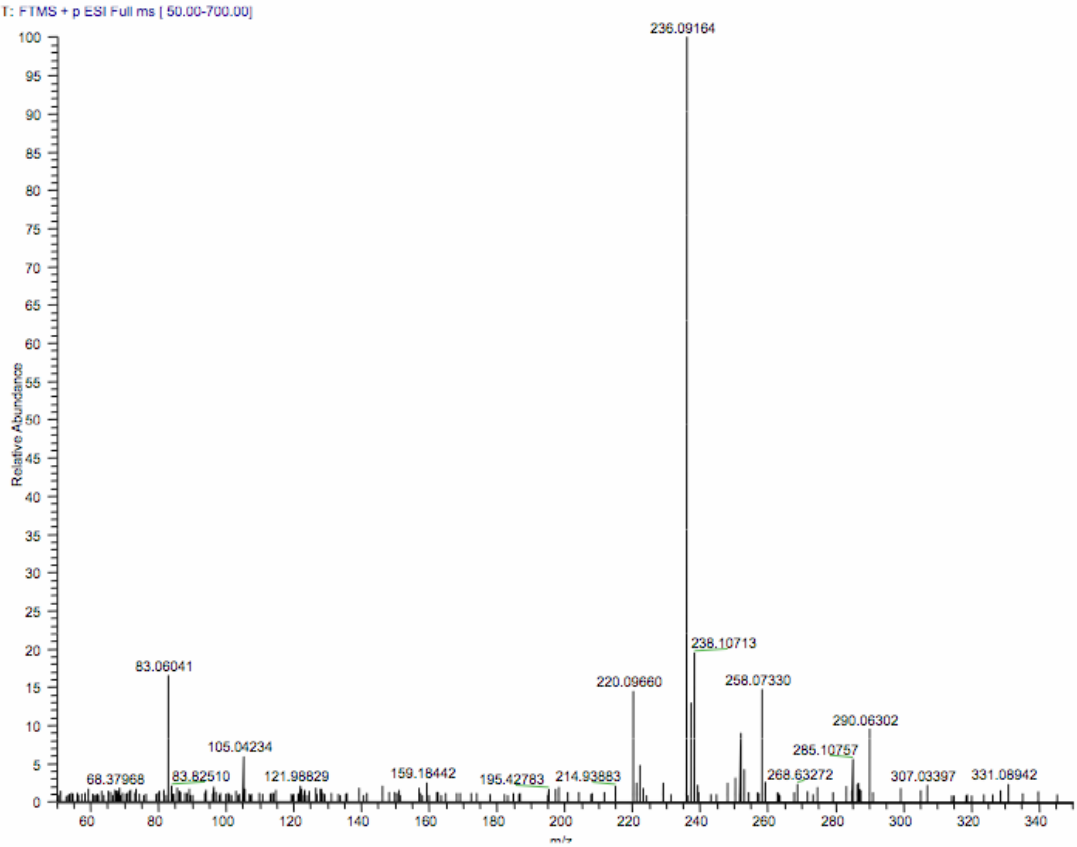
2) Alcohol 6a

HR-MS(ESI)



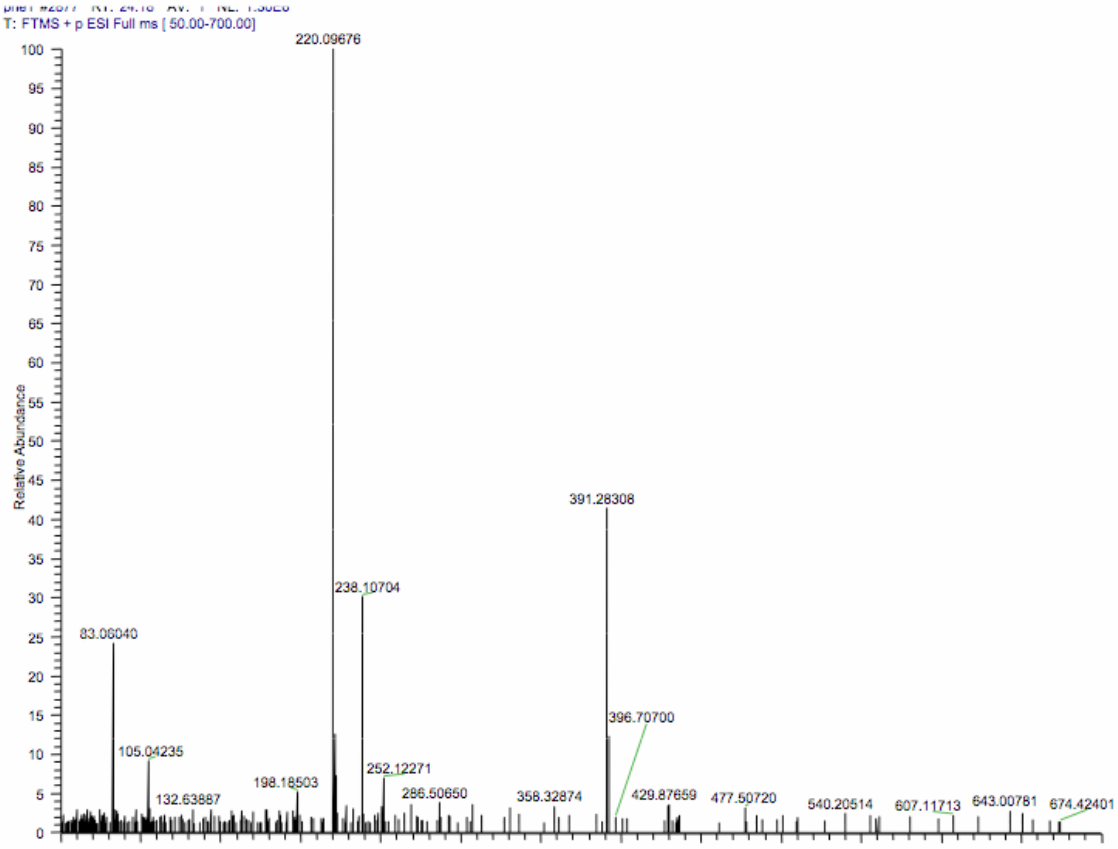
3) Carbonyl compound 7a

HR-MS(ESI)



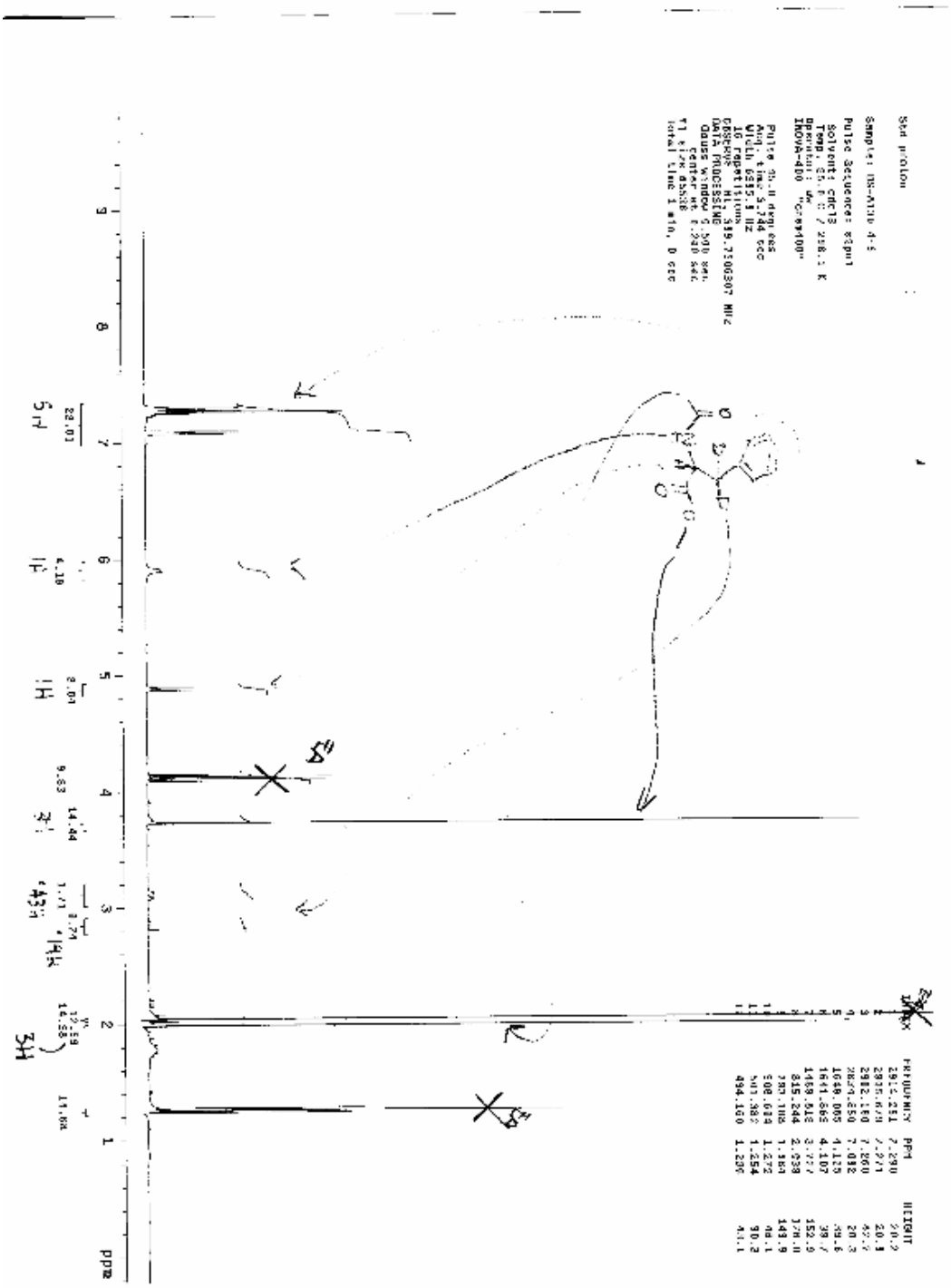
4) Alkene 8a

HR-MS(ESI)



5) Phenylalanine-D_2 1b

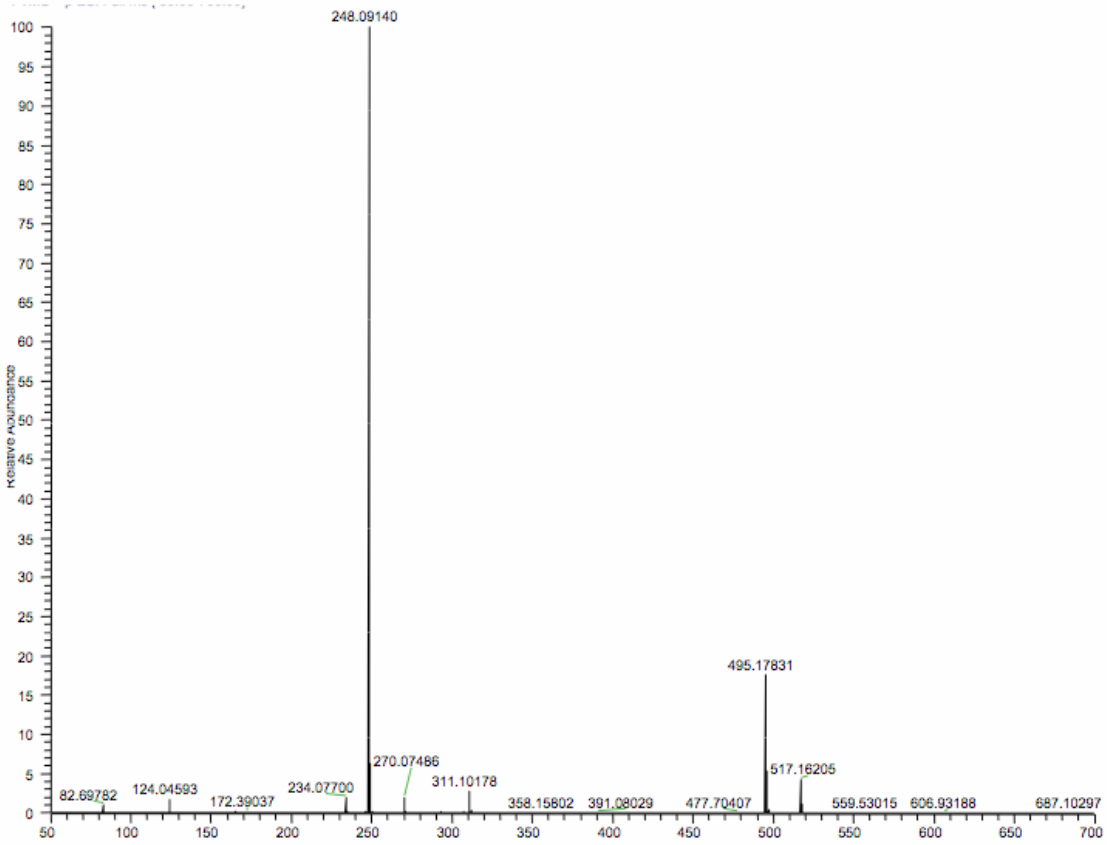
^{1}H NMR ($CDCl_3$, 400 MHz)



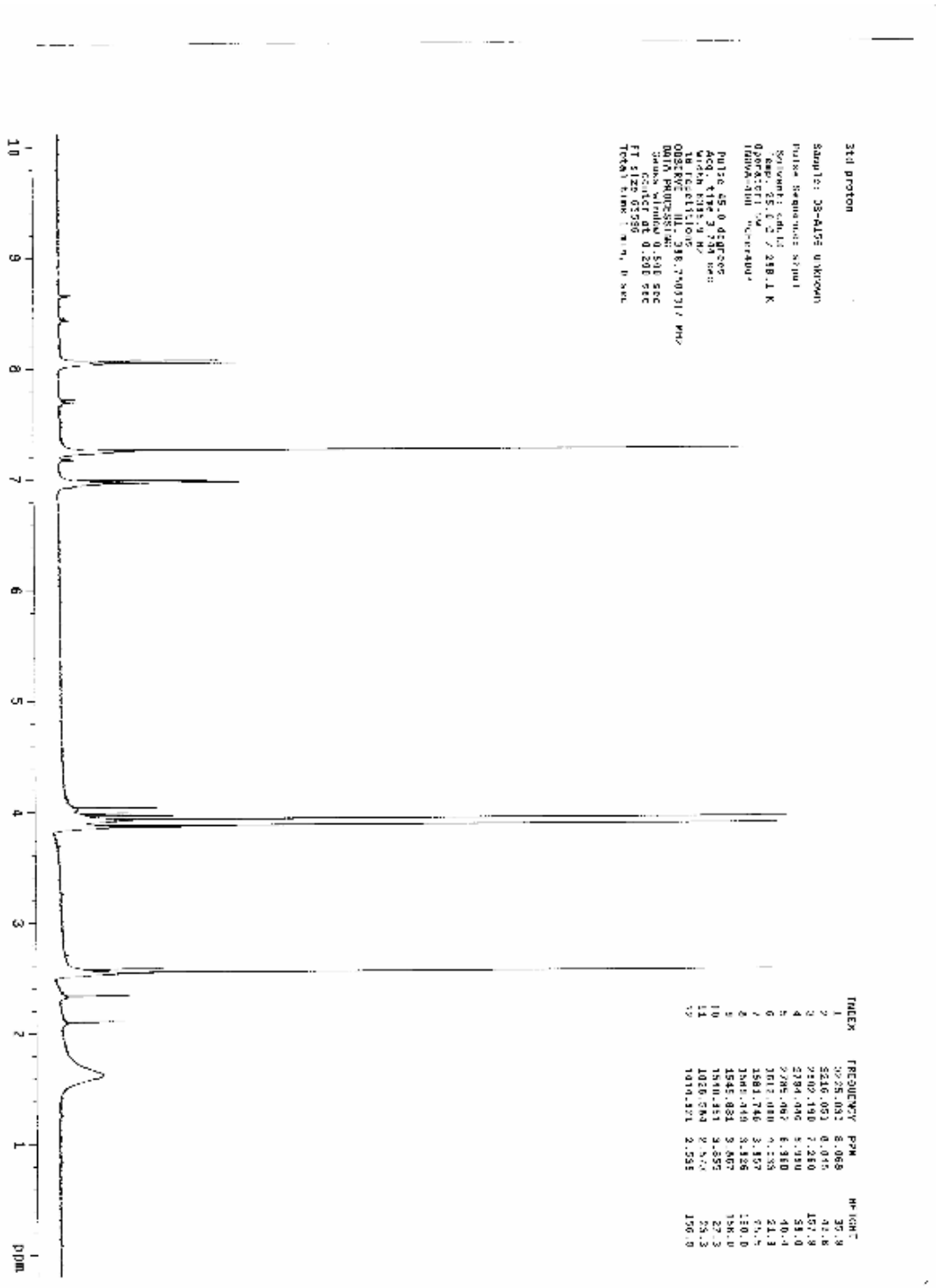
II Reaction of $NO_3^{\bullet}$ with 4-methoxy phenylalanine 2

1) Carbonyl compund 7b

HR-MS(ESI)

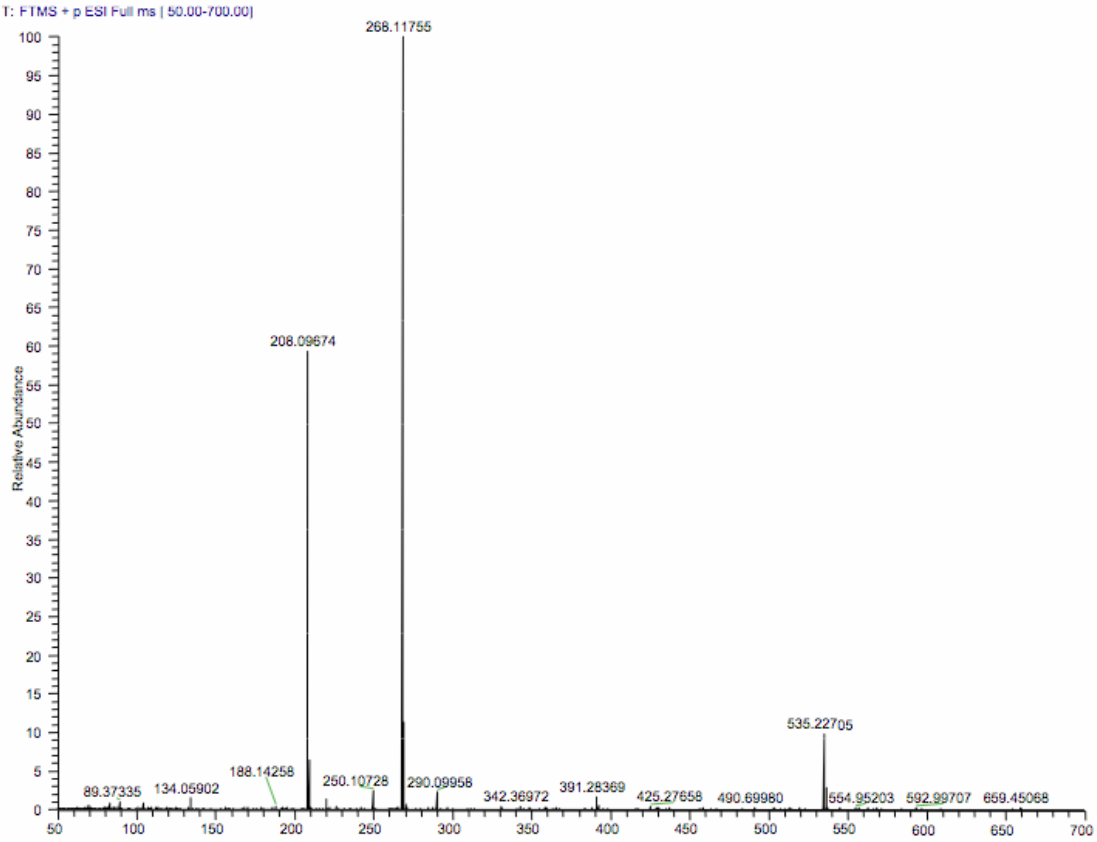


^{1}H NMR ($CDCl_3$, 400 MHz)



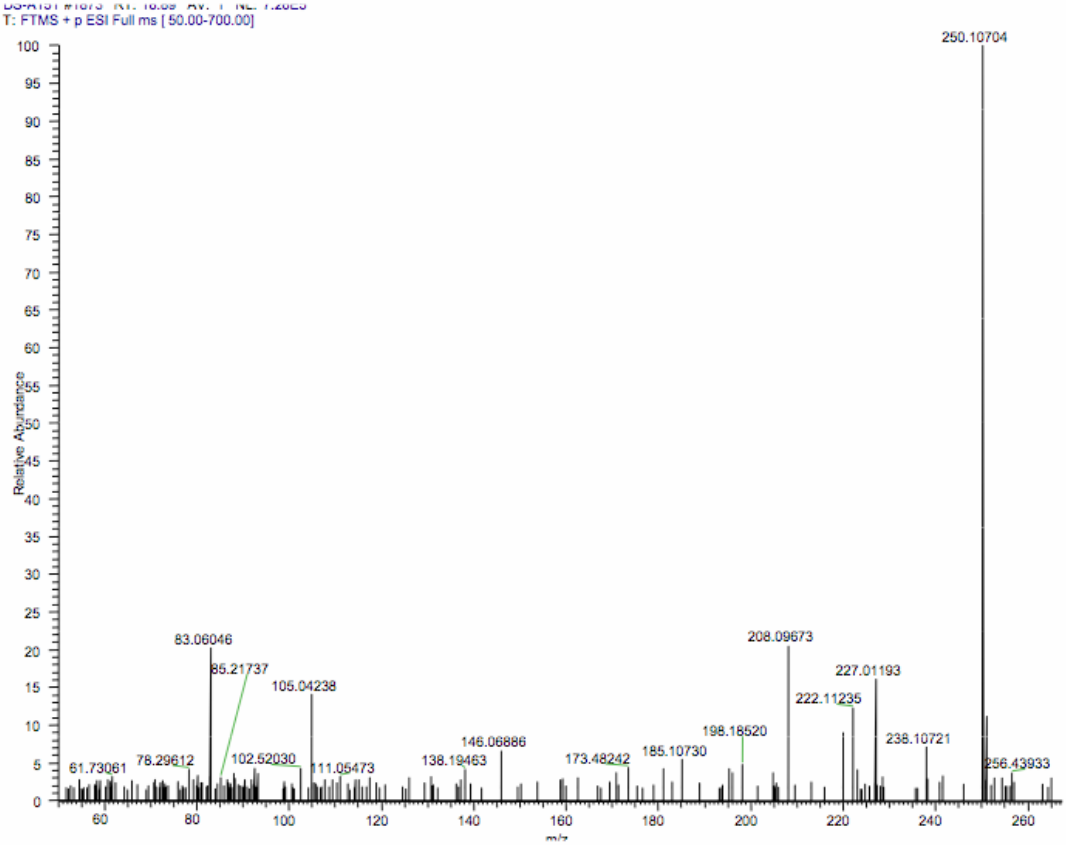
2) Alcohol 6c

HR-MS(ESI)



3) Alkene 8b

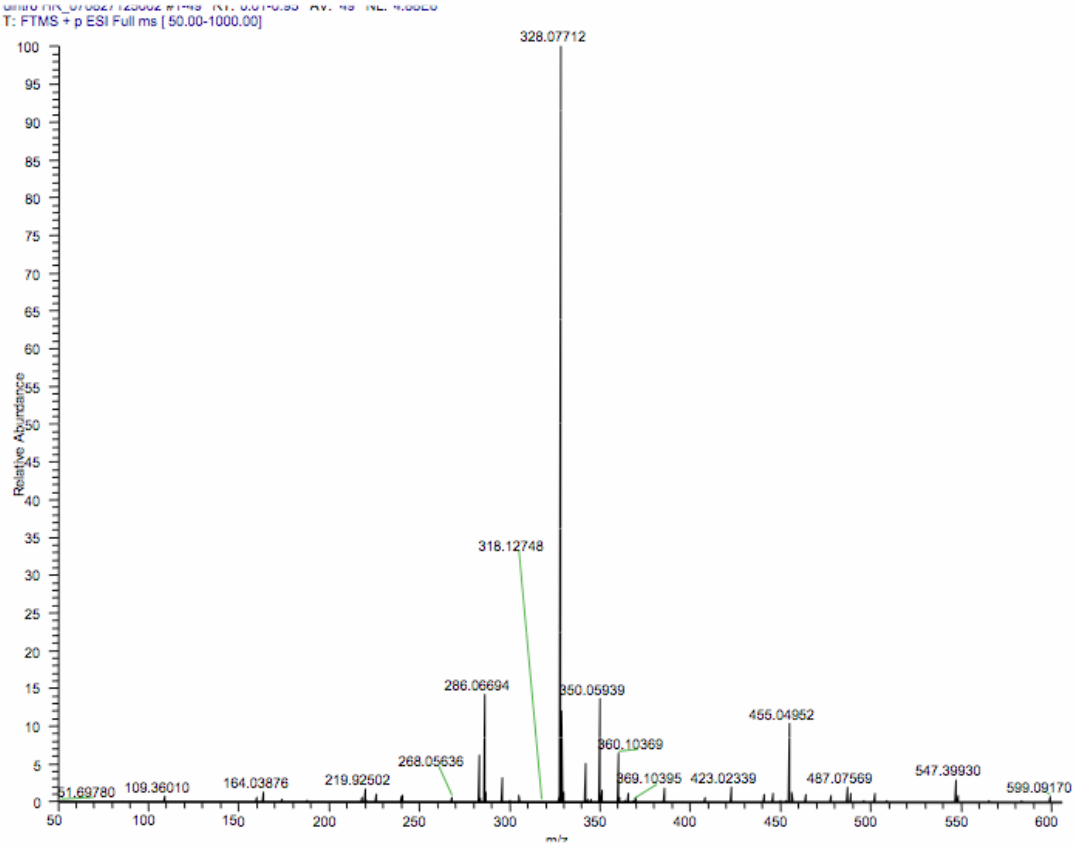
HR-MS(ESI)



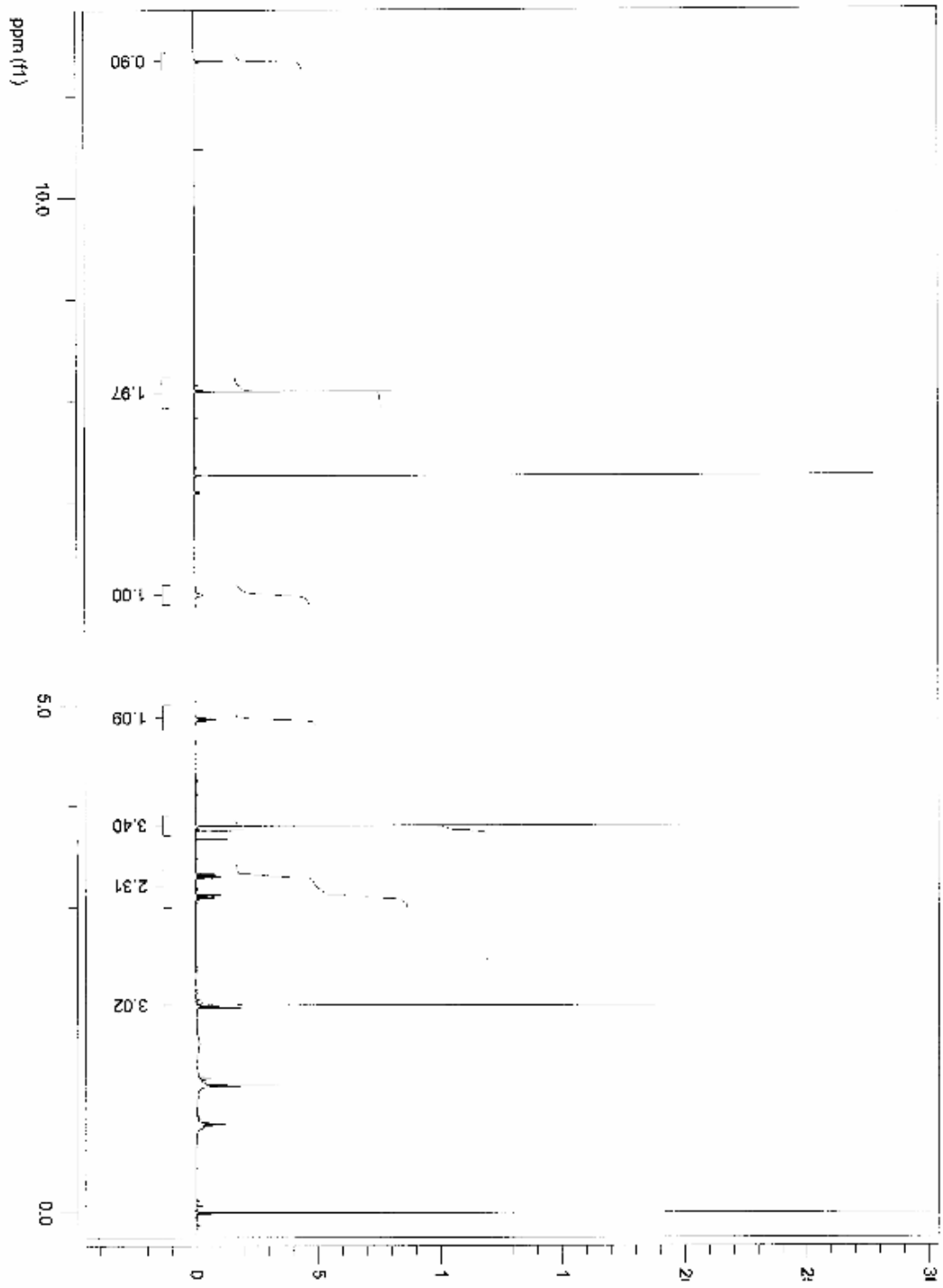
III Reaction of $NO_3^\bullet$ with tyrosine 4

1) Dinitrotyrosine 14b

HR-MS(ESI)



^{1}H NMR ($CDCl_3$, 400 MHz)



2) Nitrotyrosine 14a

HR-MS(ESI)