Supplementary Material

A-ring functionalization of cholestane with highly substituted pyrans and 2-aminoisophthalonitriles

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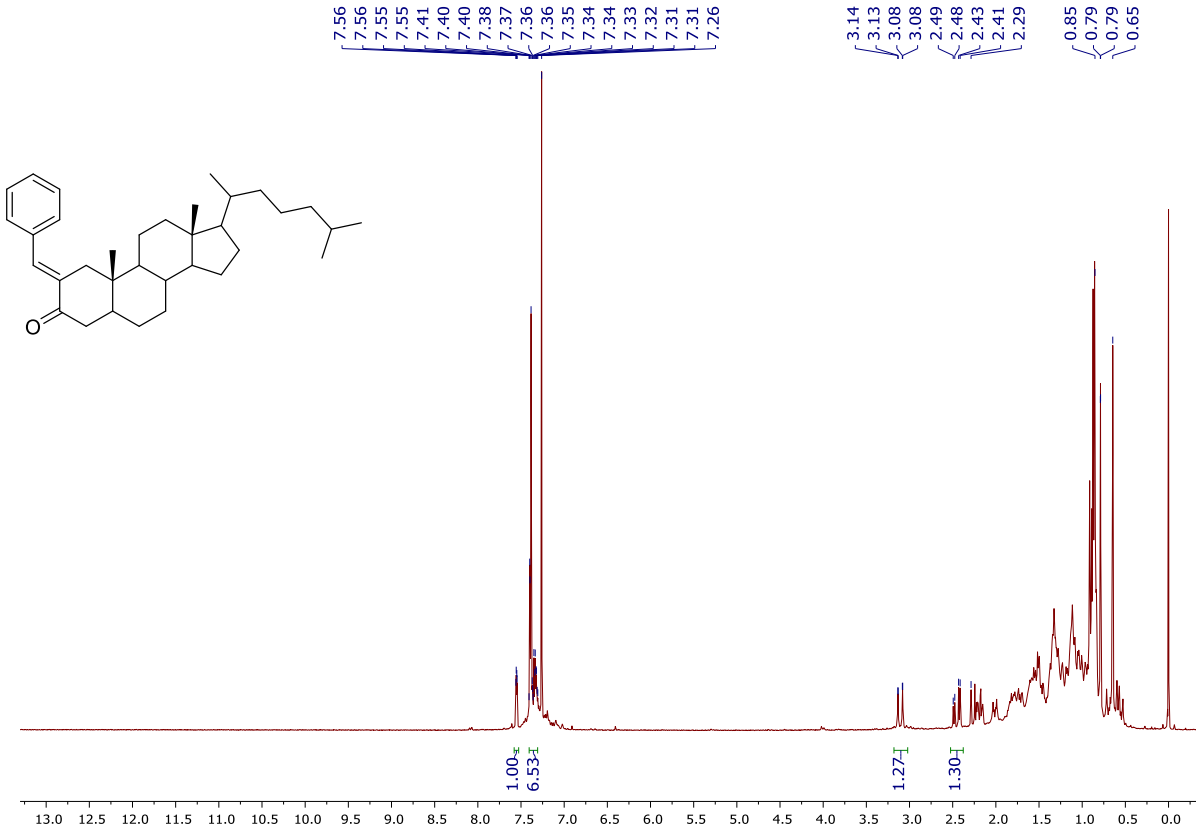

Figure S1: ^{1}H-NMR (300 MHz, $CDCl_3$) of compound **3a**.

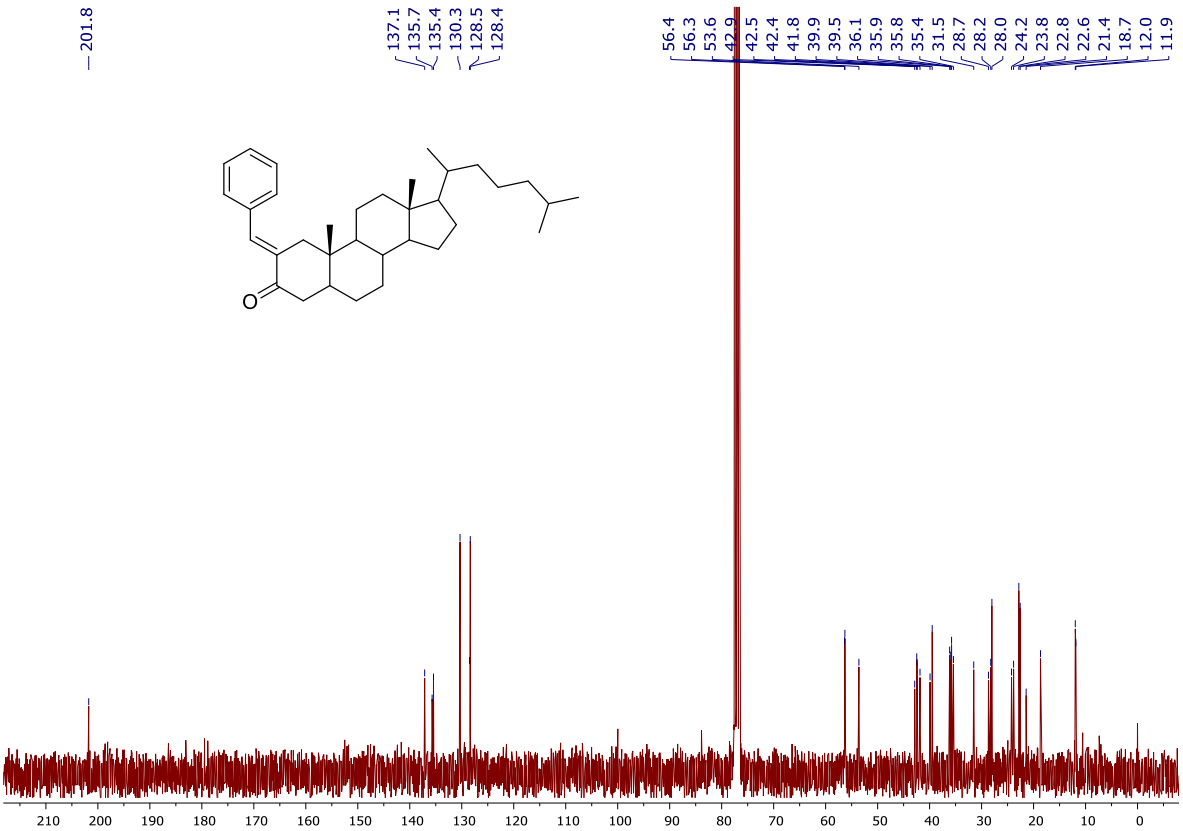

Figure S2: ^{13}C-NMR (75 MHz, $CDCl_3$) of compound **3a**.

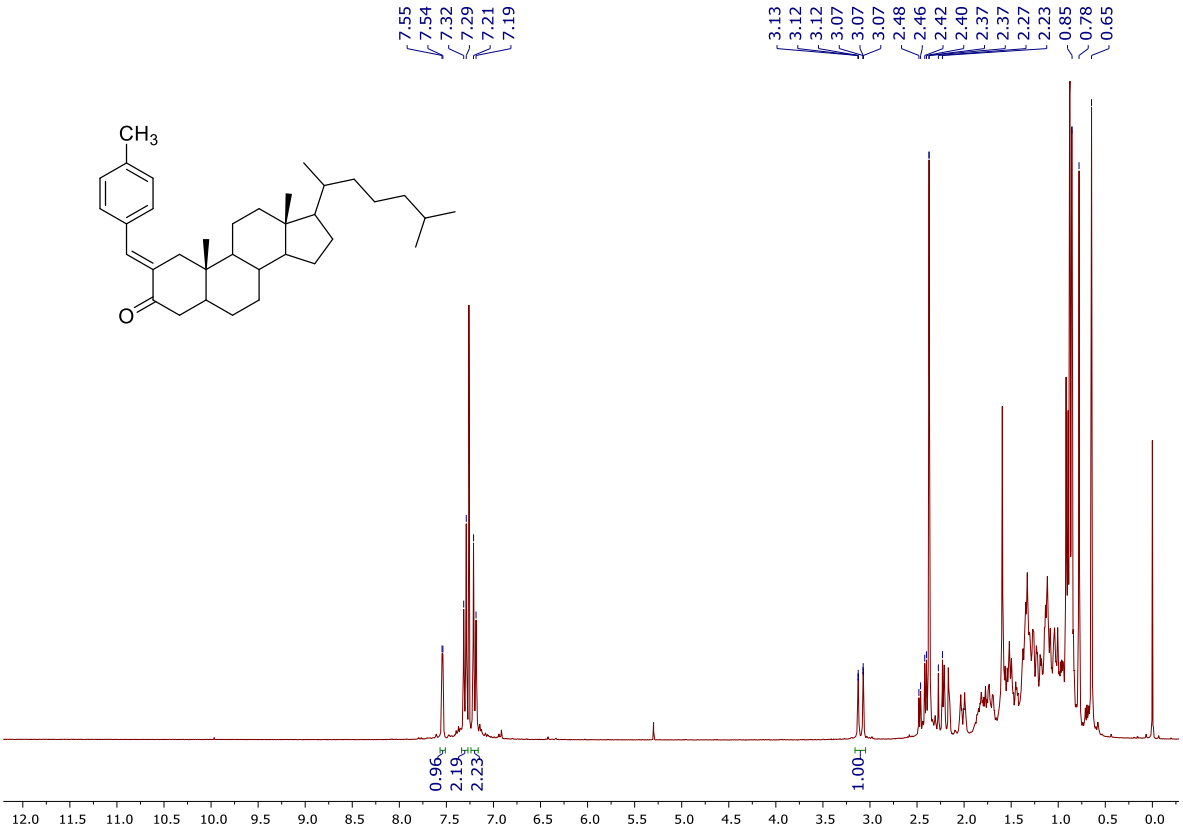

Figure S3: ^{1}H-NMR (300 MHz, $CDCl_3$) of compound **3b**.

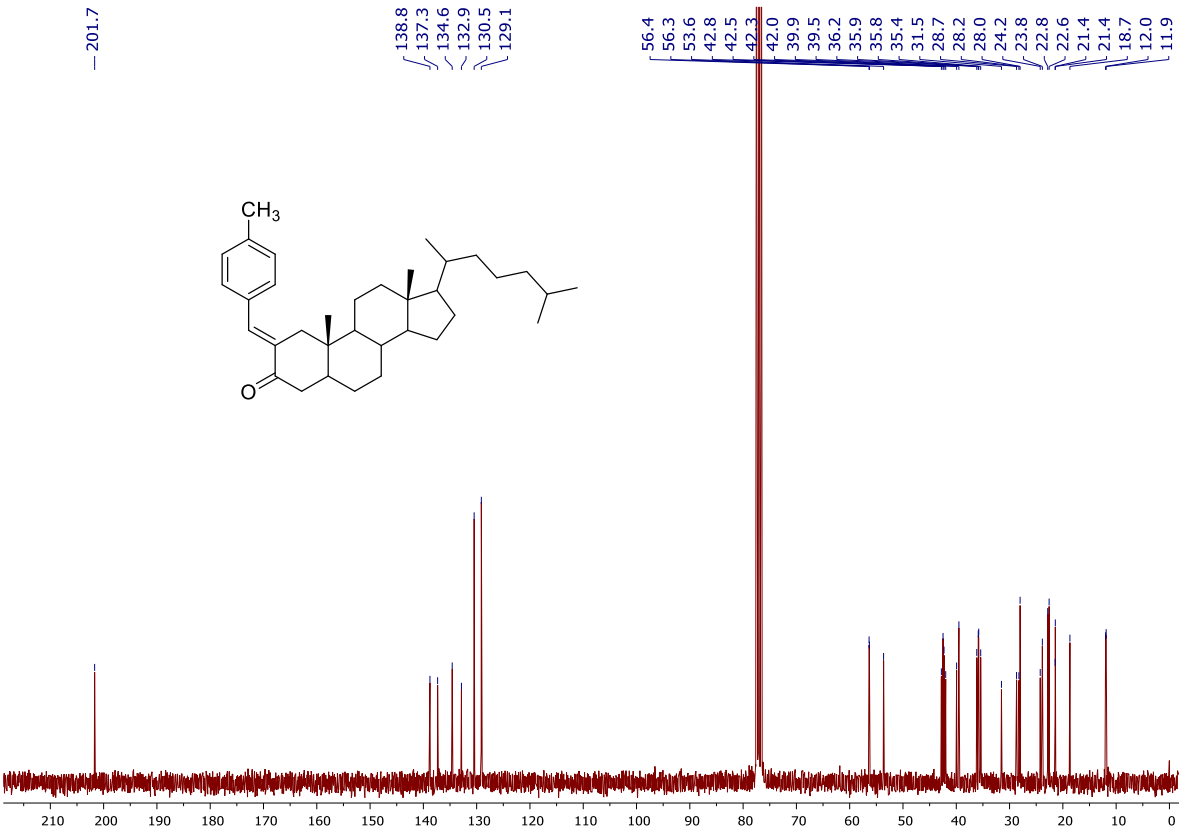

Figure S4: ^{13}C-NMR (75 MHz, $CDCl_3$) of compound **3b**.

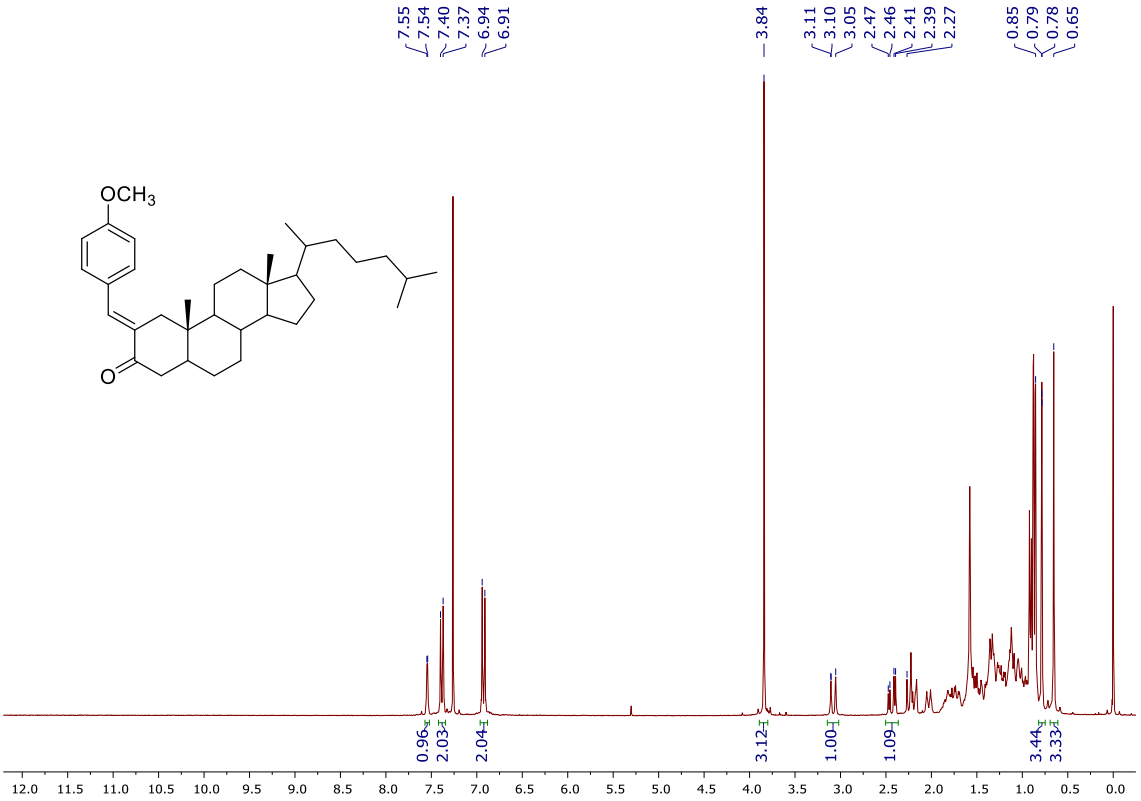

Figure S5: ^{1}H-NMR (300 MHz, $CDCl_3$) of compound **3c**.

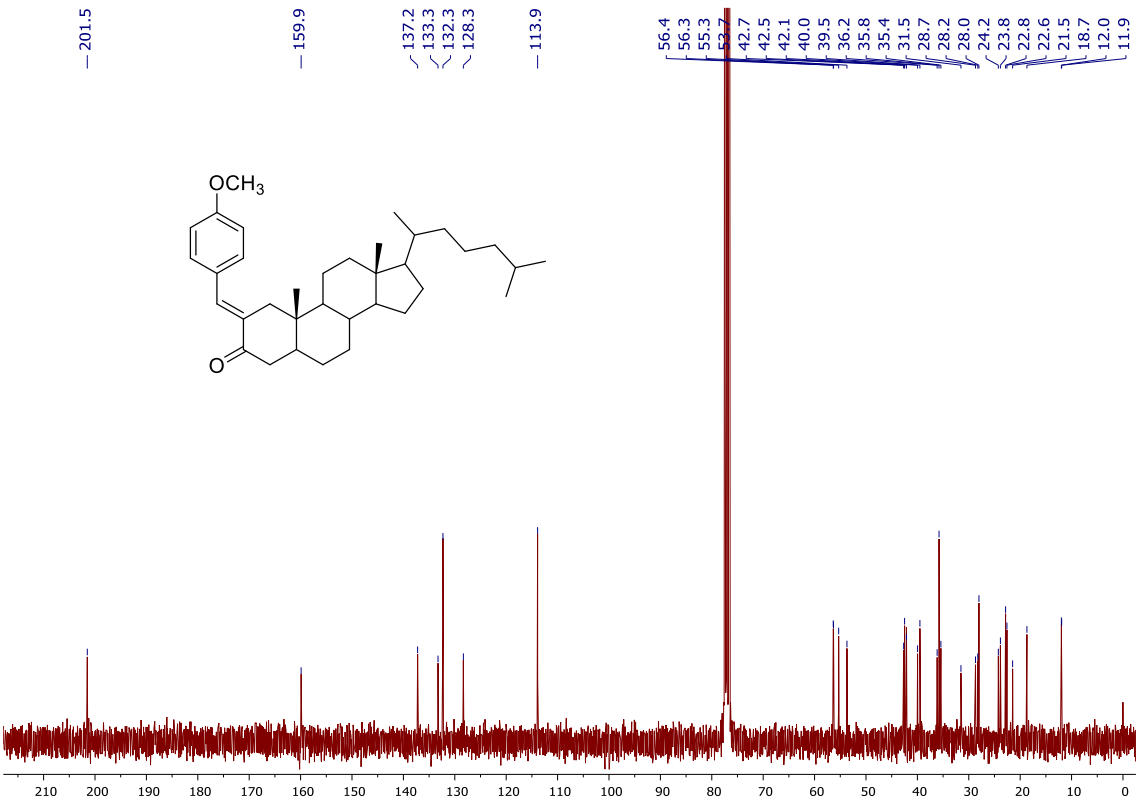

Figure S6: ^{13}C-NMR (75 MHz, $CDCl_3$) of compound **3c**.

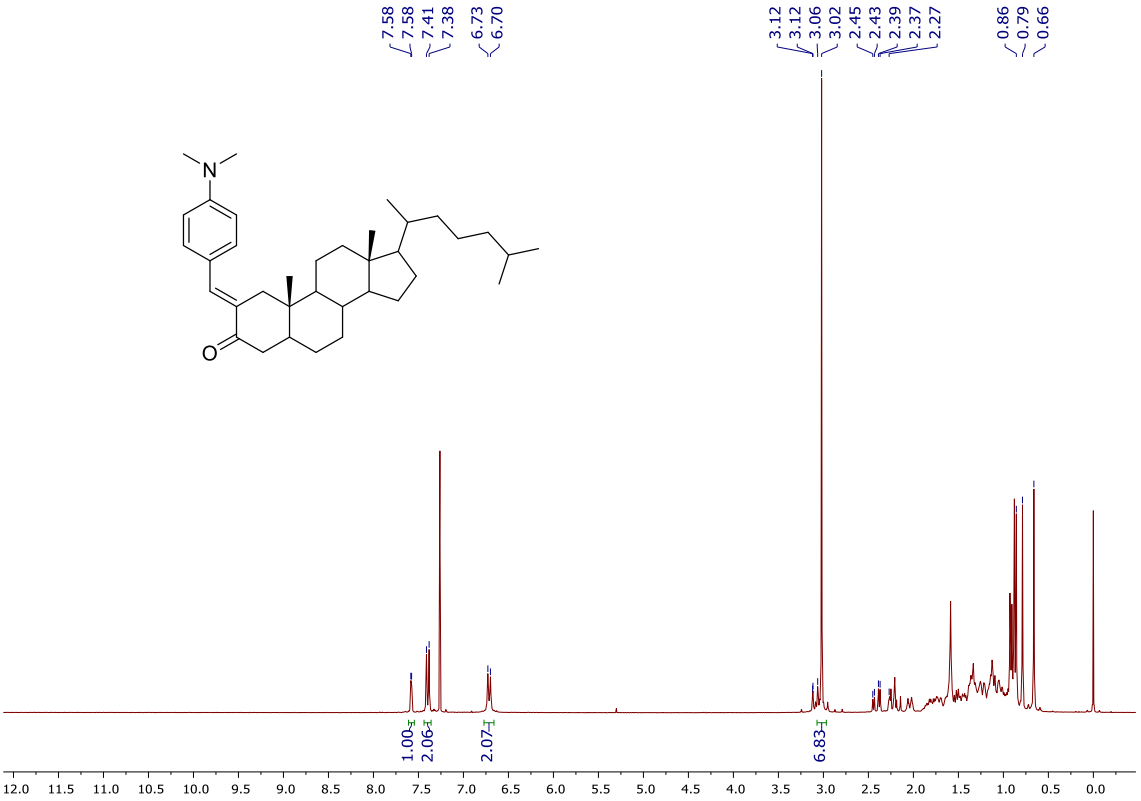

Figure S7: ^{1}H-NMR (300 MHz, $CDCl_3$) of compound **3d**.

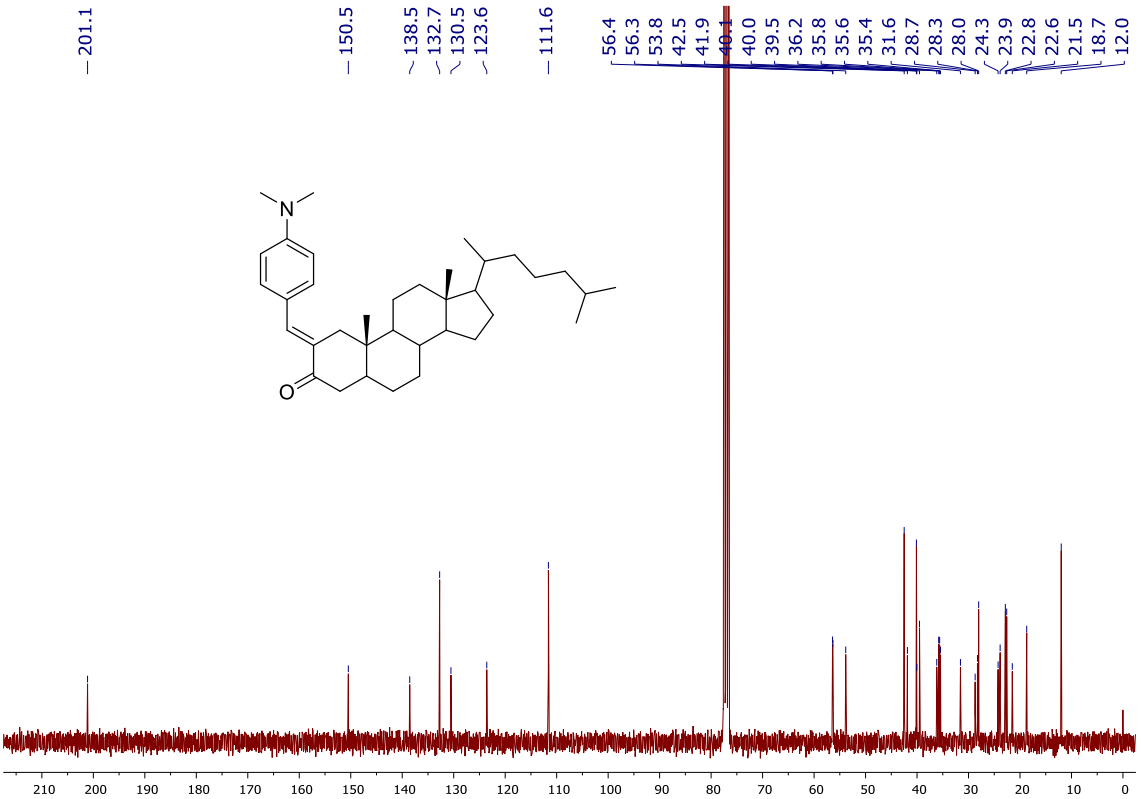

Figure S8: ^{13}C-NMR (75 MHz, $CDCl_3$) of compound **3d**.

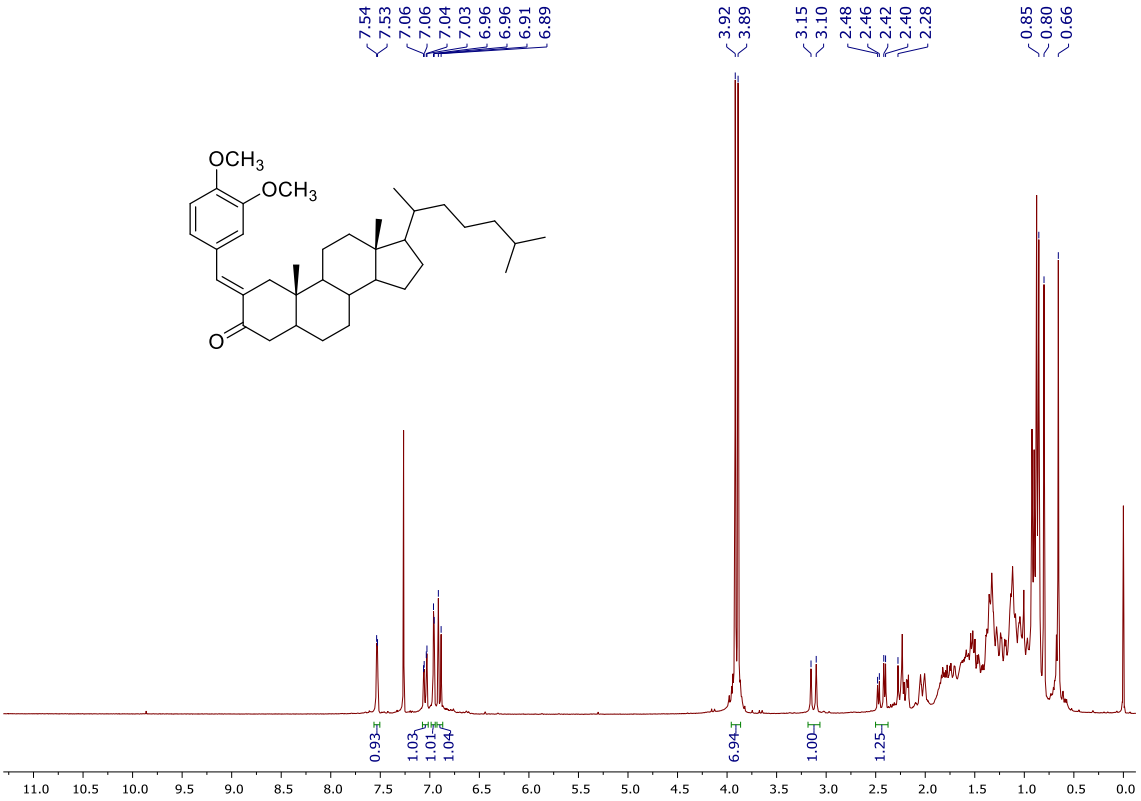

Figure S9: ^{1}H-NMR (300 MHz, $CDCl_3$) of compound **3e**.

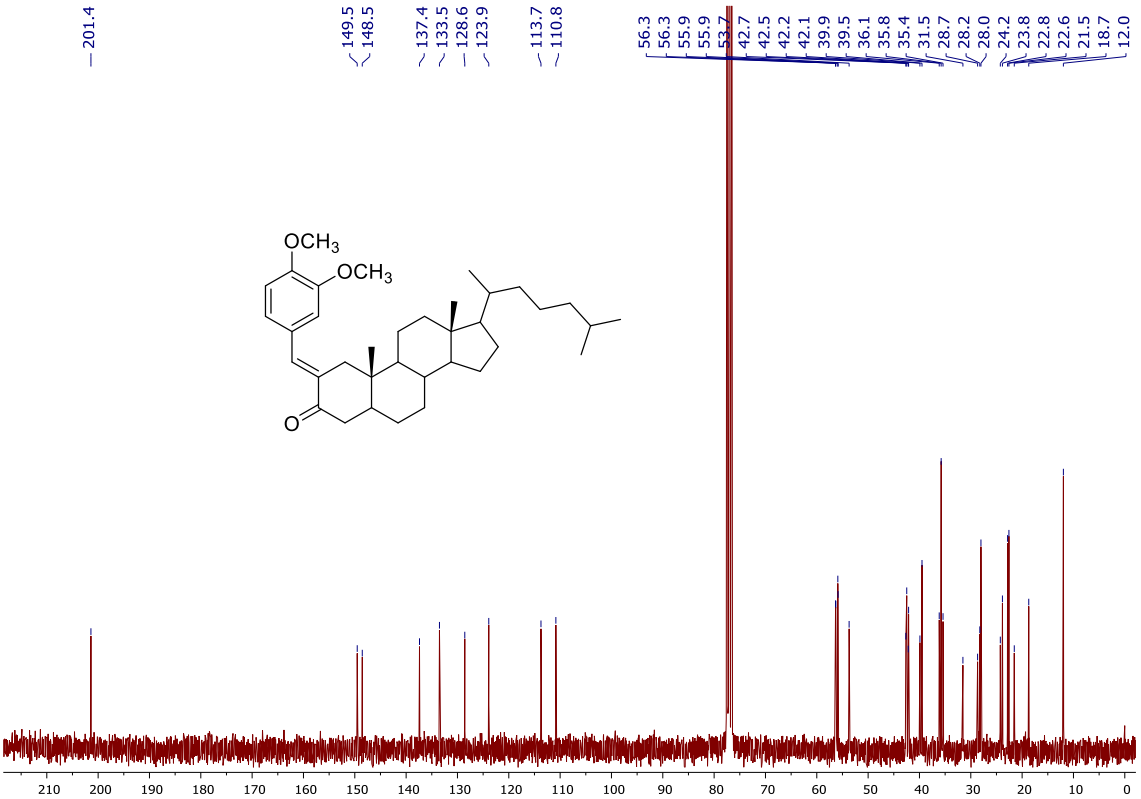

Figure S10: ^{13}C-NMR (75 MHz, $CDCl_3$) of compound **3e**.

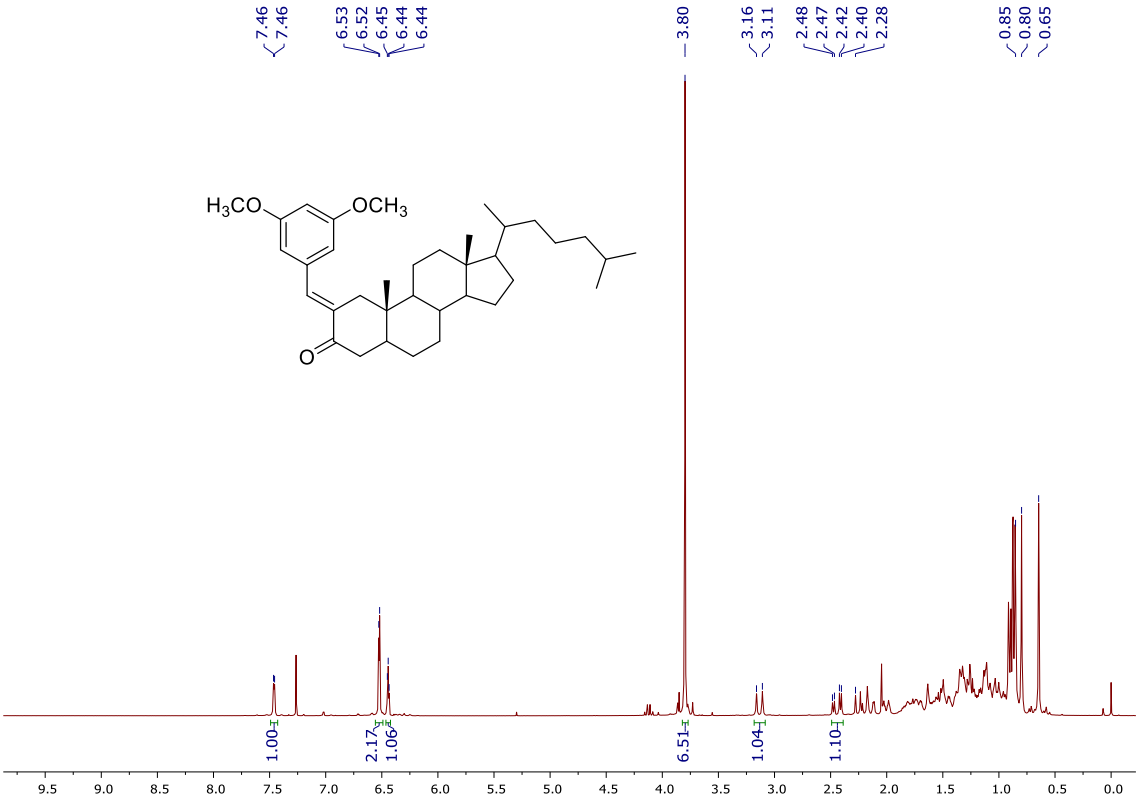

Figure S11: ^{1}H-NMR (300 MHz, $CDCl_3$) of compound **3f**.

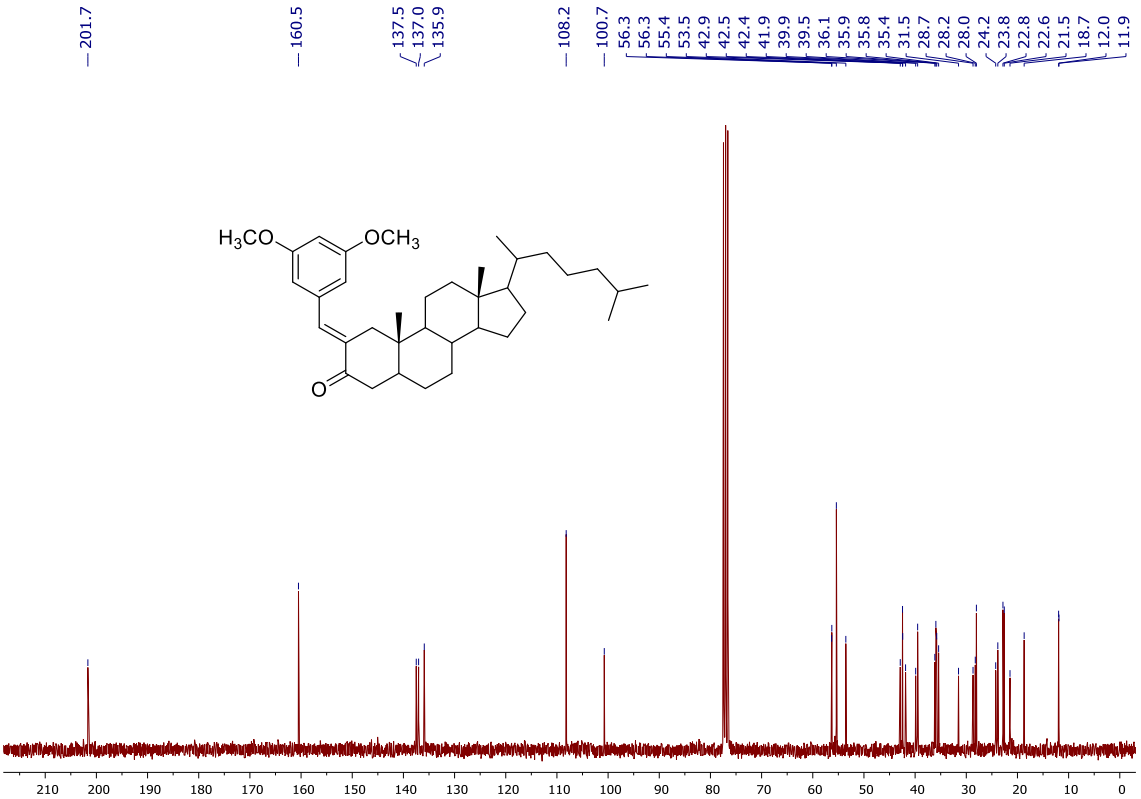

Figure S12: ^{13}C-NMR (75 MHz, $CDCl_3$) of compound **3f**.

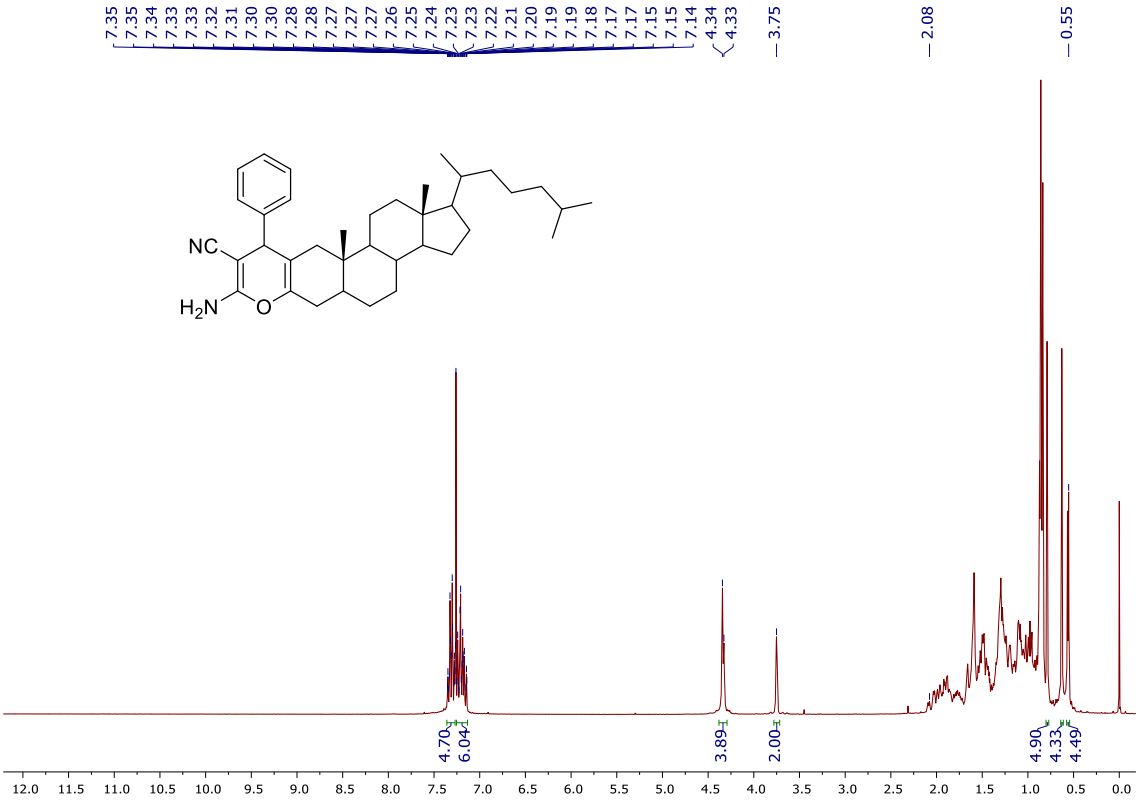

Figure S13: ^{1}H-NMR (300 MHz, $CDCl_3$) of compound **4a**.

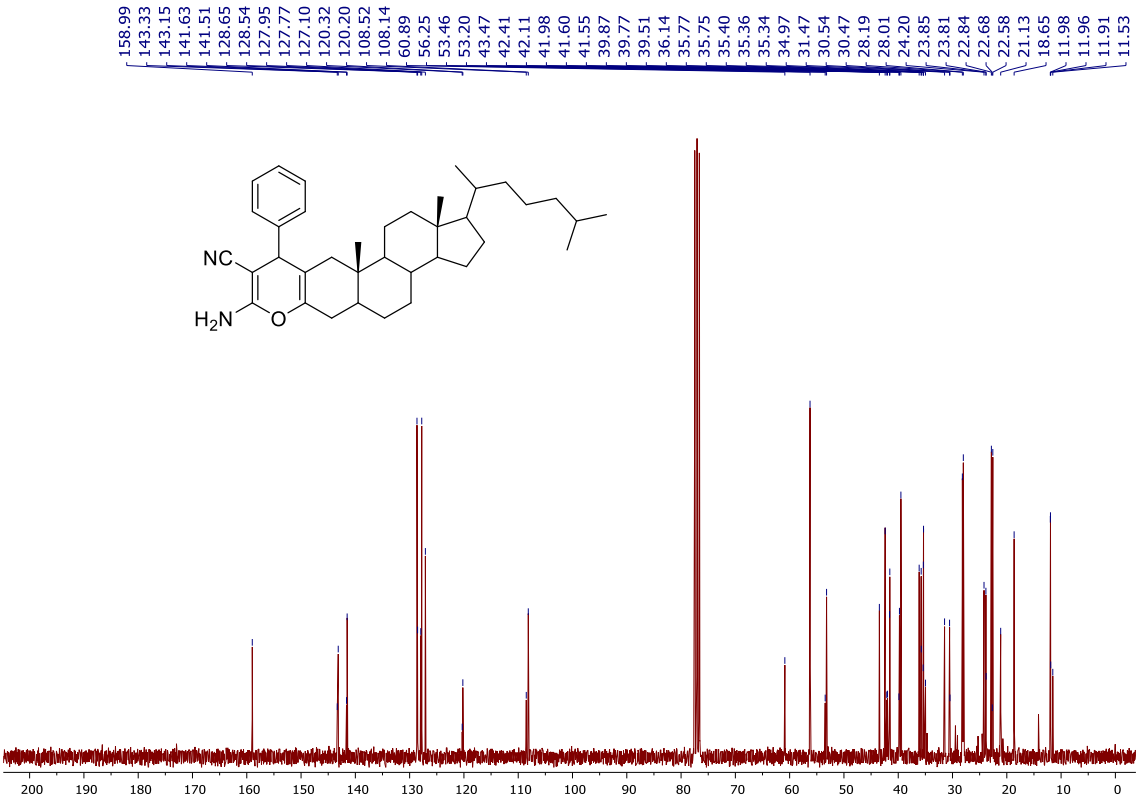

Figure S14: ^{13}C-NMR (75 MHz, $CDCl_3$) of compound **4a**.

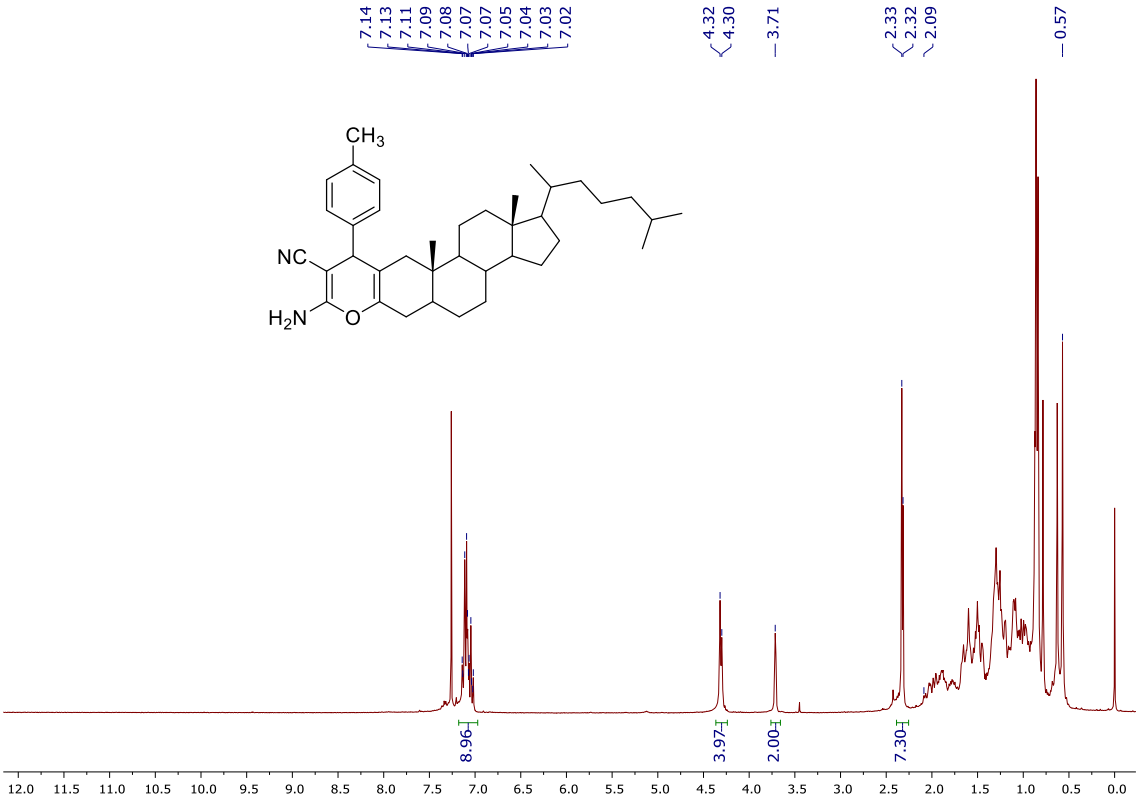

Figure S15: ^{1}H-NMR (300 MHz, $CDCl_3$) of compound **4b**.

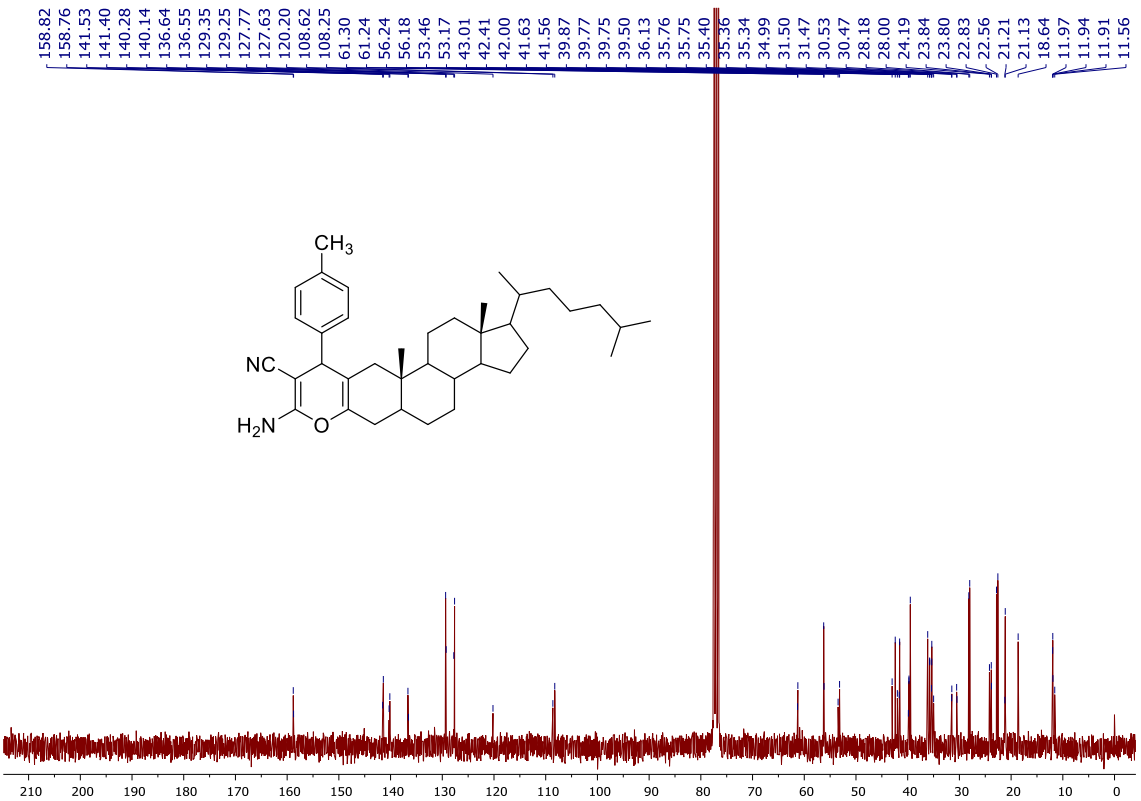

Figure S16: ^{13}C-NMR (75 MHz, $CDCl_3$) of compound **4b**.

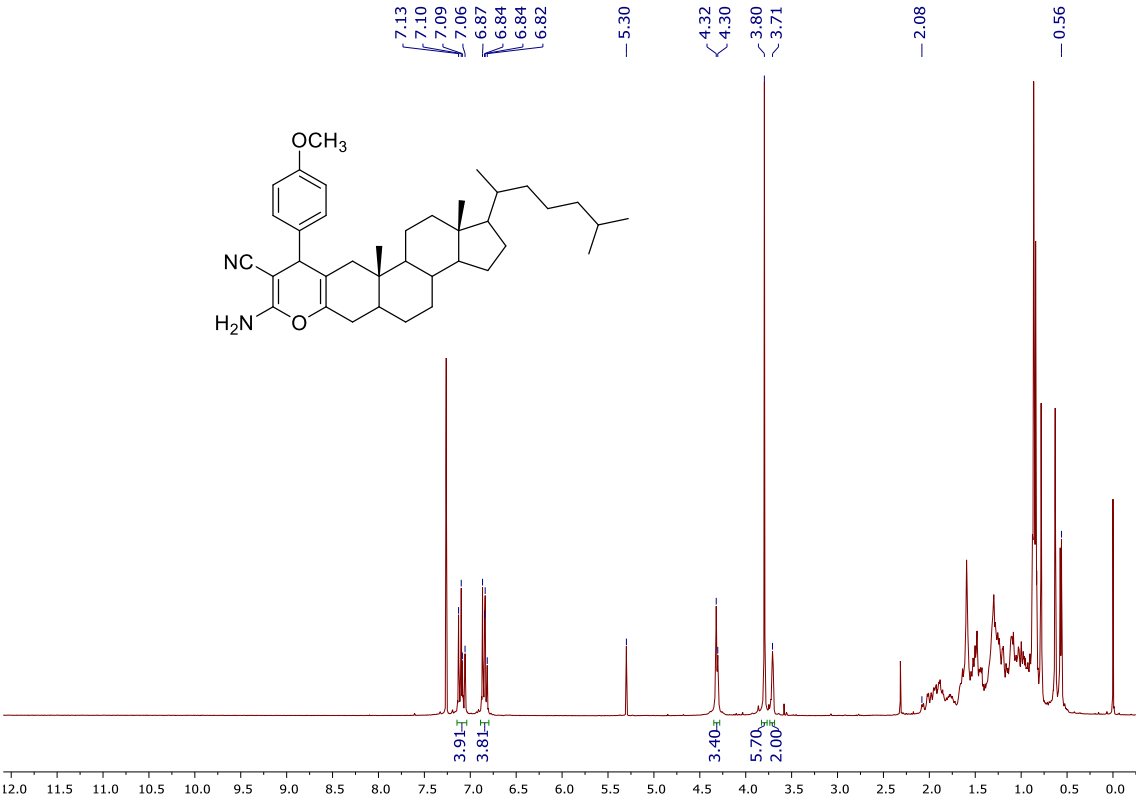

Figure S17: ^{1}H-NMR (300 MHz, $CDCl_3$) of compound **4c**.

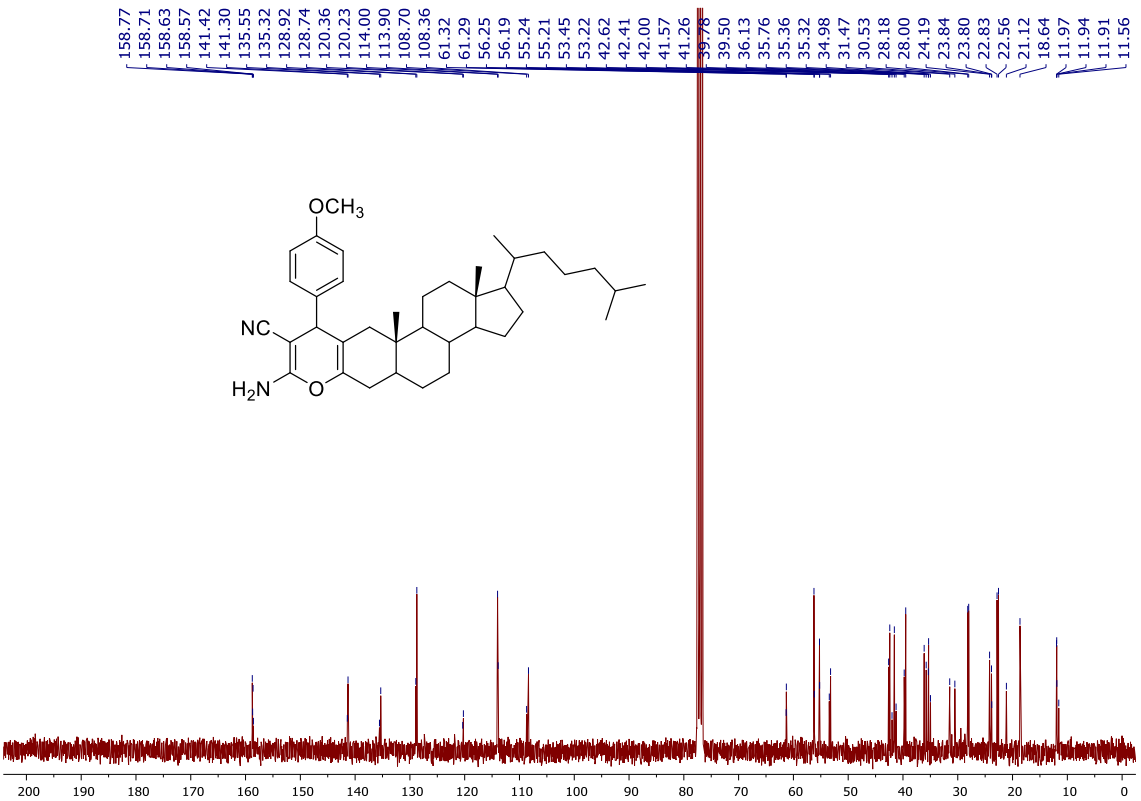

Figure S18: ^{13}C-NMR (75 MHz, $CDCl_3$) of compound **4c**.

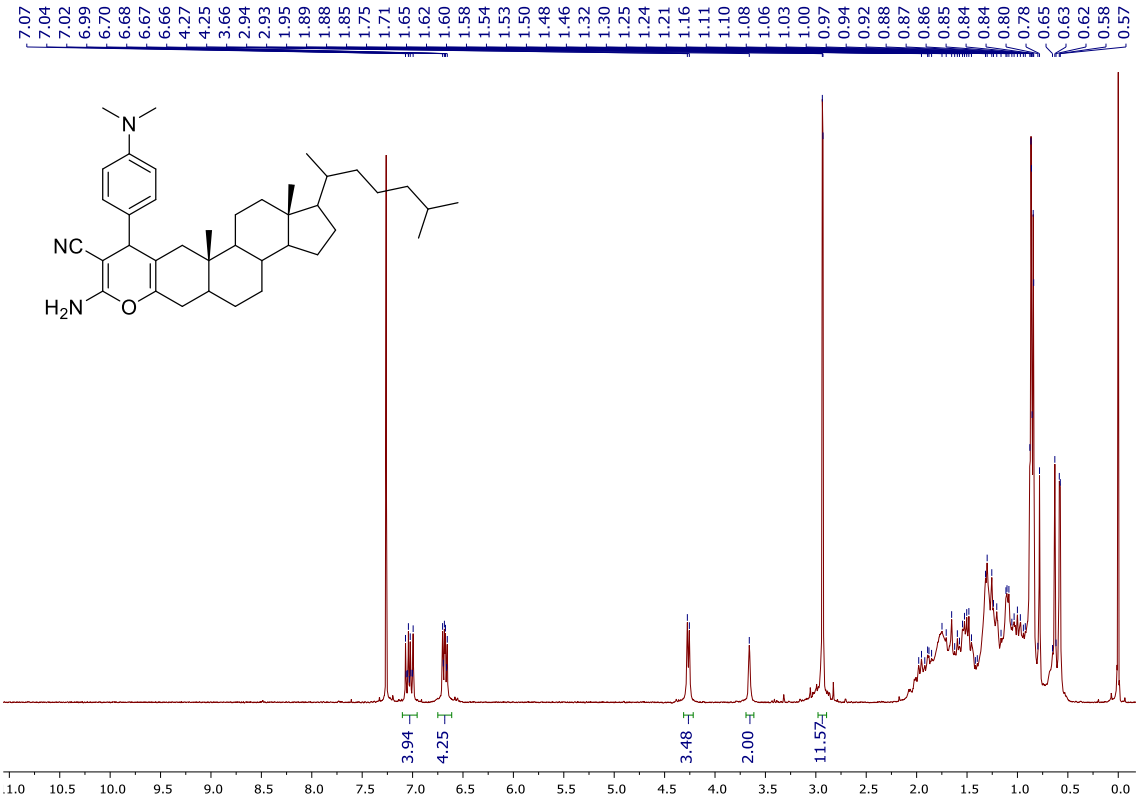

Figure S19: ^{1}H-NMR (300 MHz, $CDCl_3$) of compound **4d**.

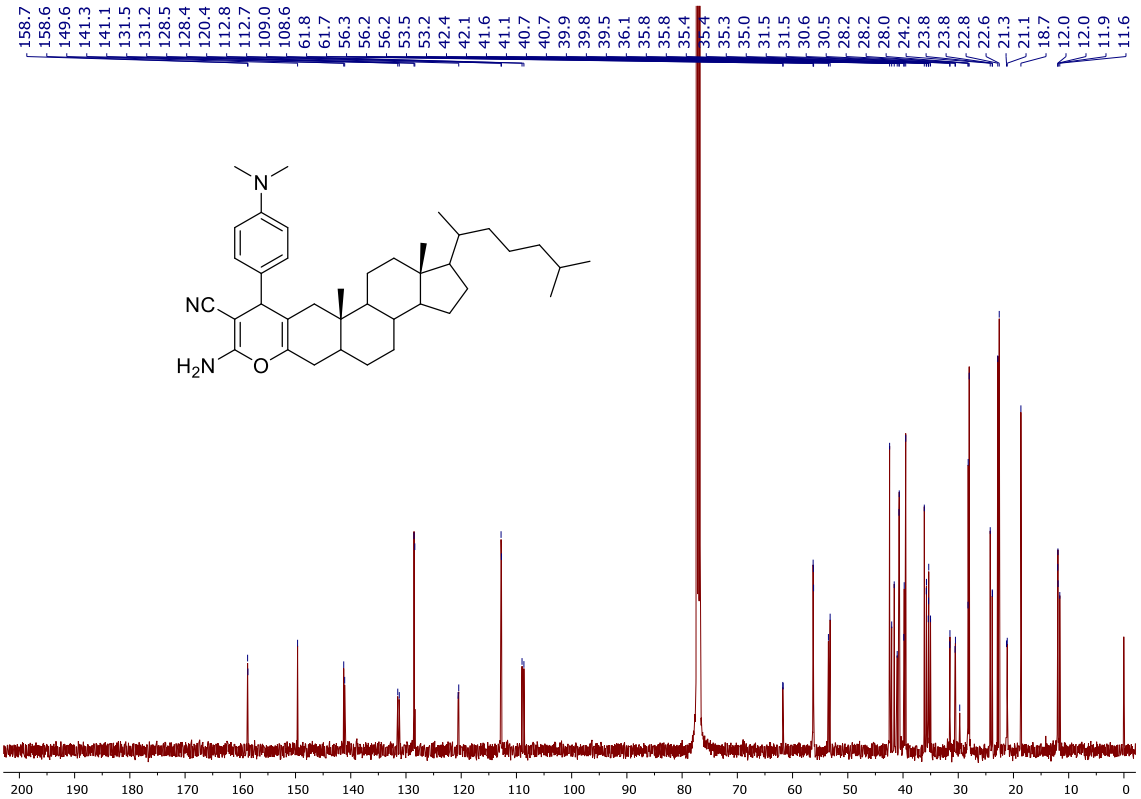

Figure S20: ^{13}C-NMR (125 MHz, $CDCl_3$) of compound **4d**.

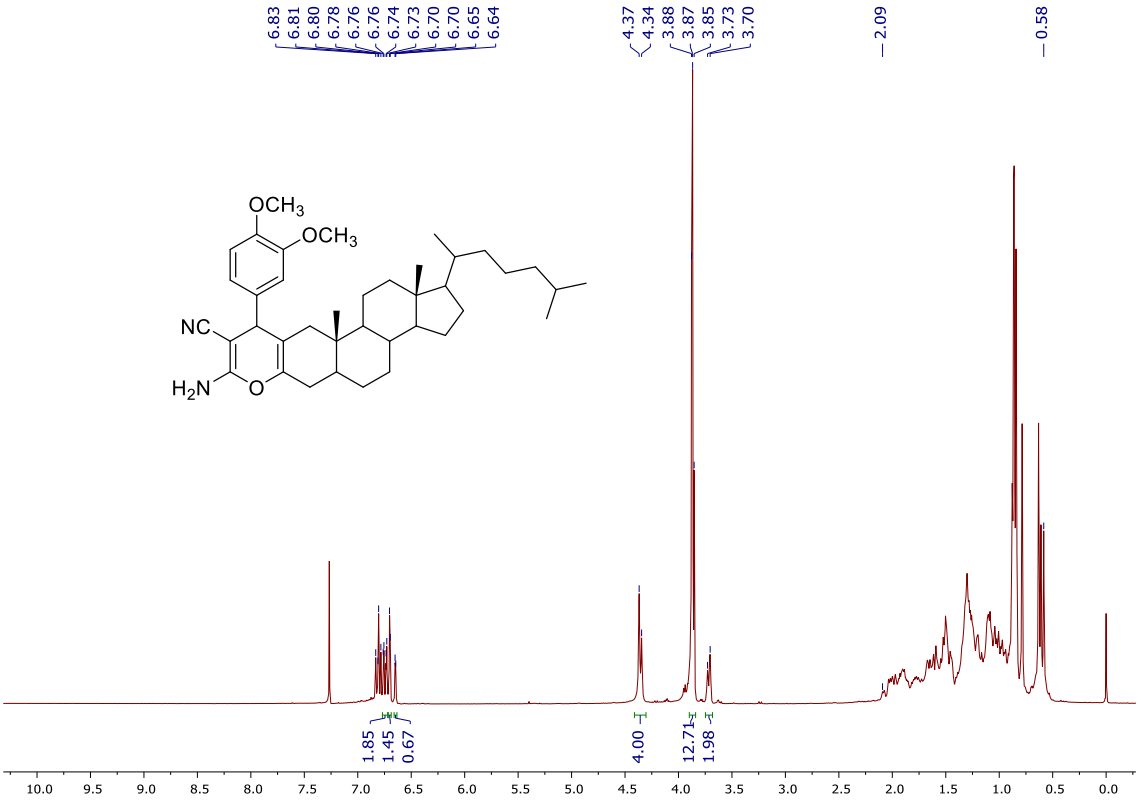

Figure S21: ^{1}H-NMR (300 MHz, $CDCl_3$) of compound **4e**.

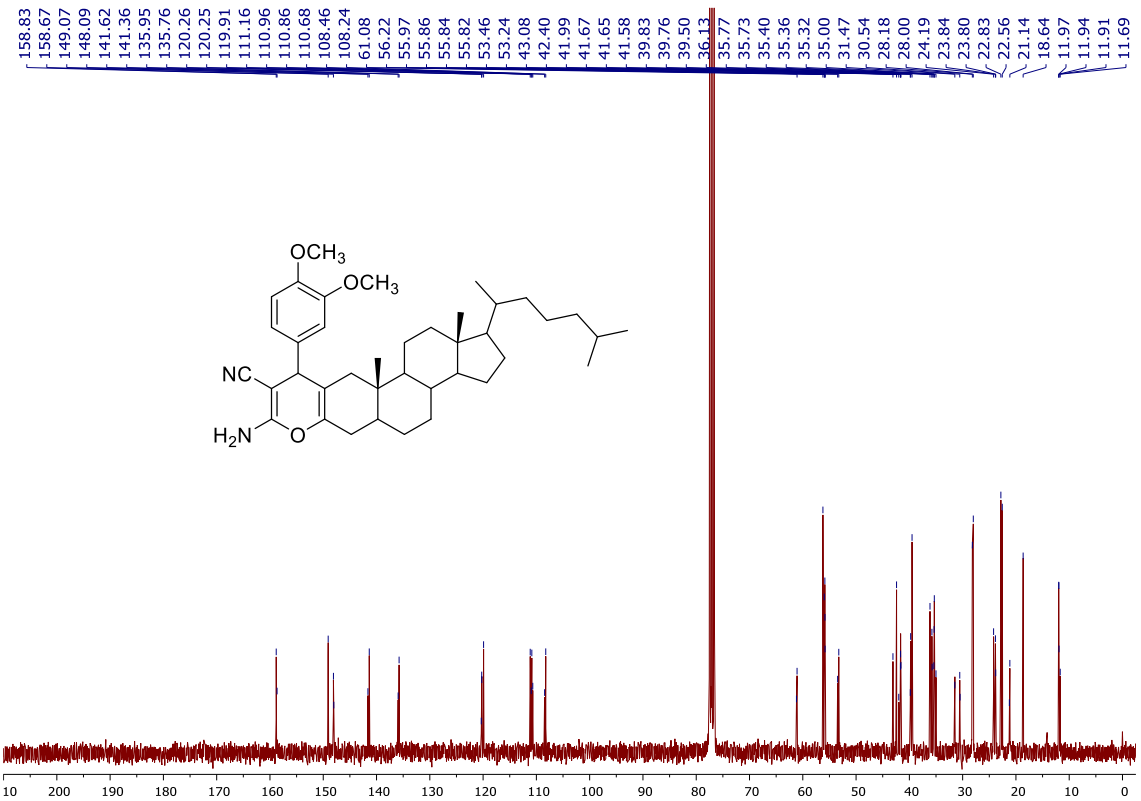

Figure S22: ^{13}C-NMR (75 MHz, $CDCl_3$) of compound **4e**.

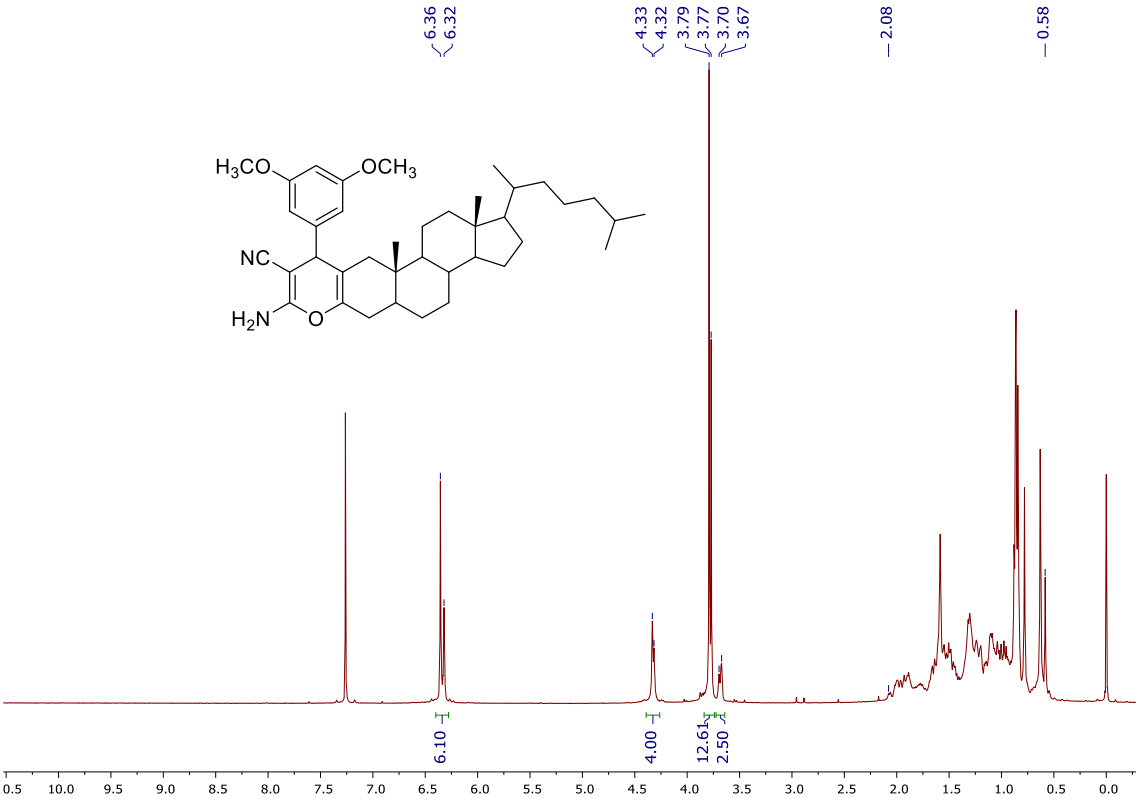

Figure S23: ^{1}H-NMR (300 MHz, $CDCl_3$) of compound **4f**.

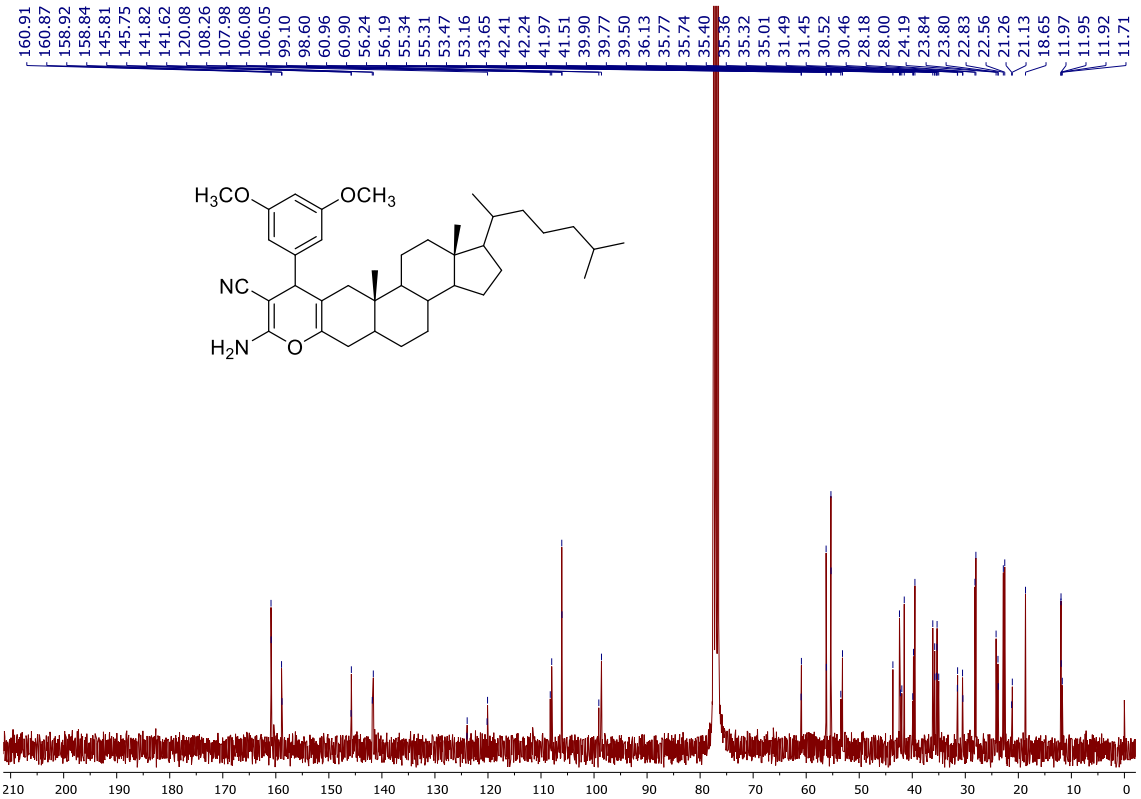

Figure S24: ^{13}C-NMR (75 MHz, $CDCl_3$) of compound **4f**.

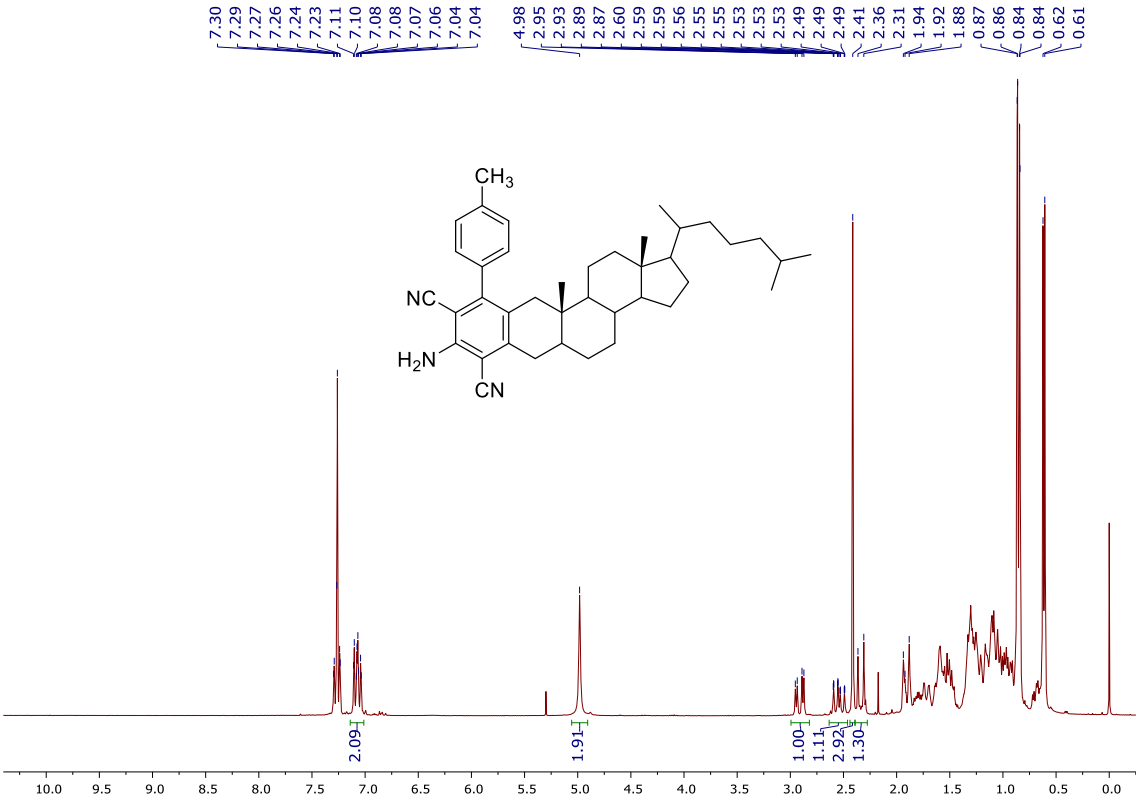

Figure S25: ^{1}H-NMR (300 MHz, $CDCl_3$) of compound **5b**.

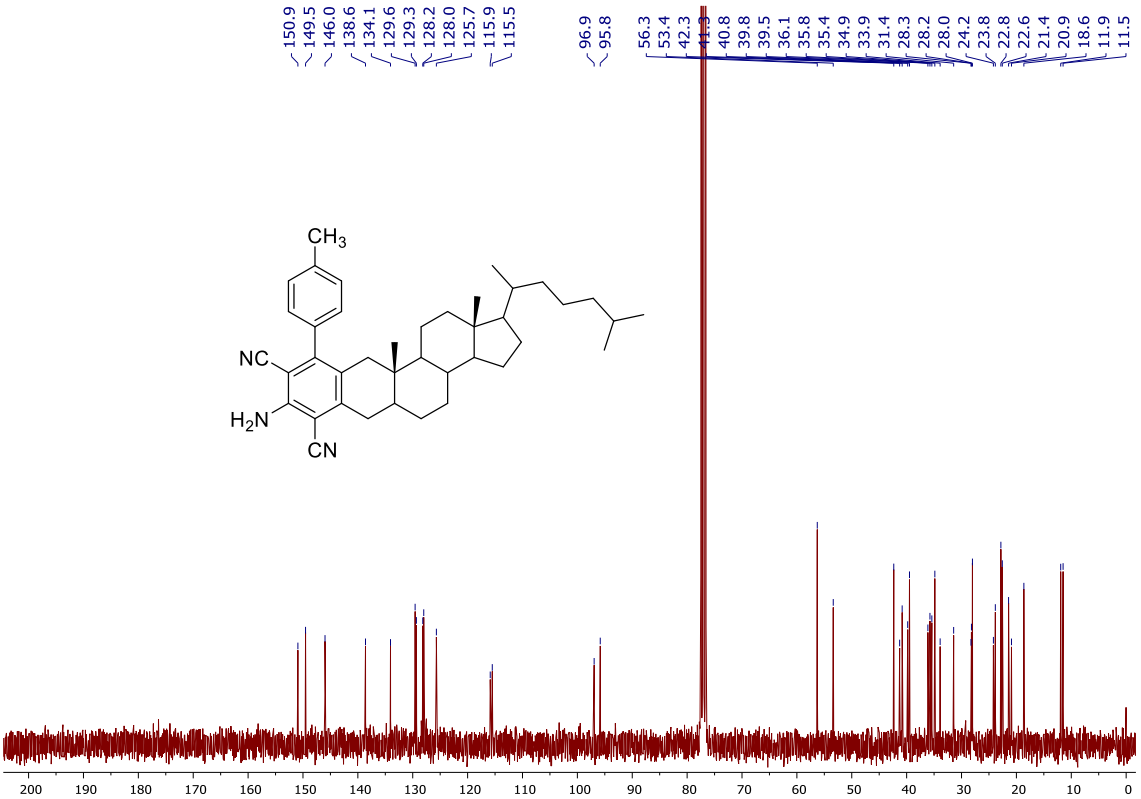

Figure S26: ^{13}C-NMR (75 MHz, $CDCl_3$) of compound **5b**.

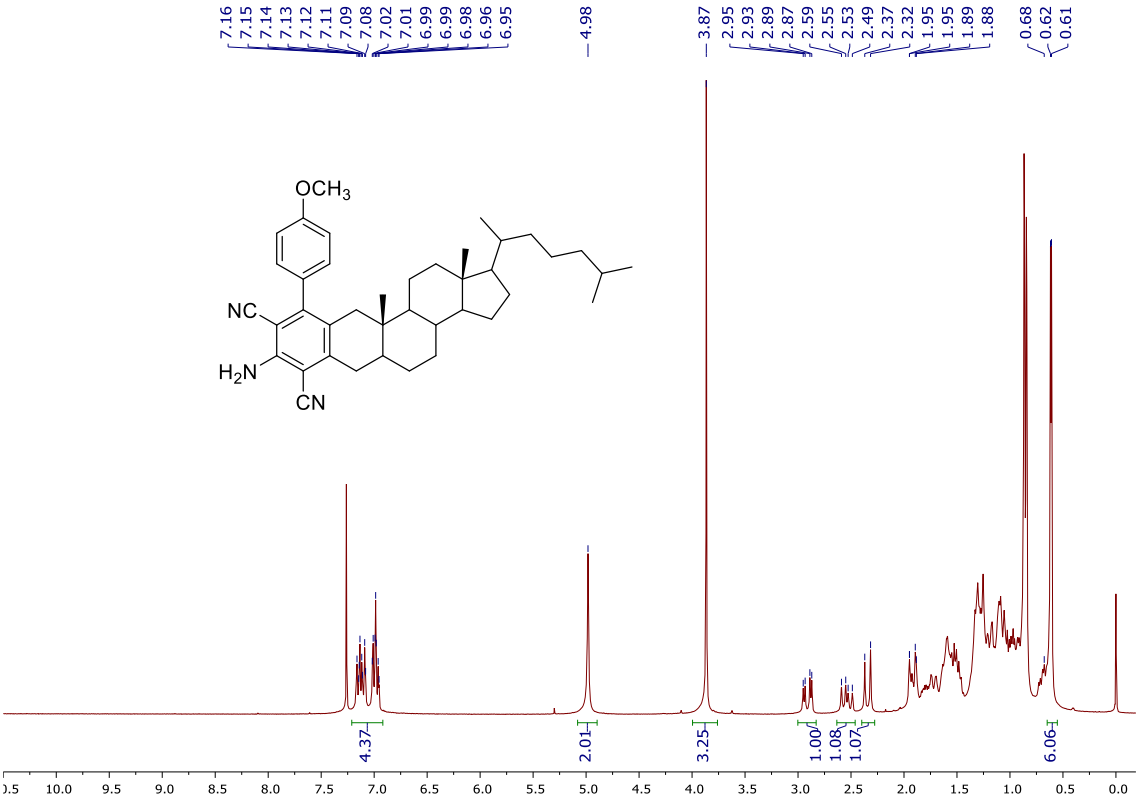

Figure S27: ^{1}H-NMR (300 MHz, $CDCl_3$) of compound **5c**.

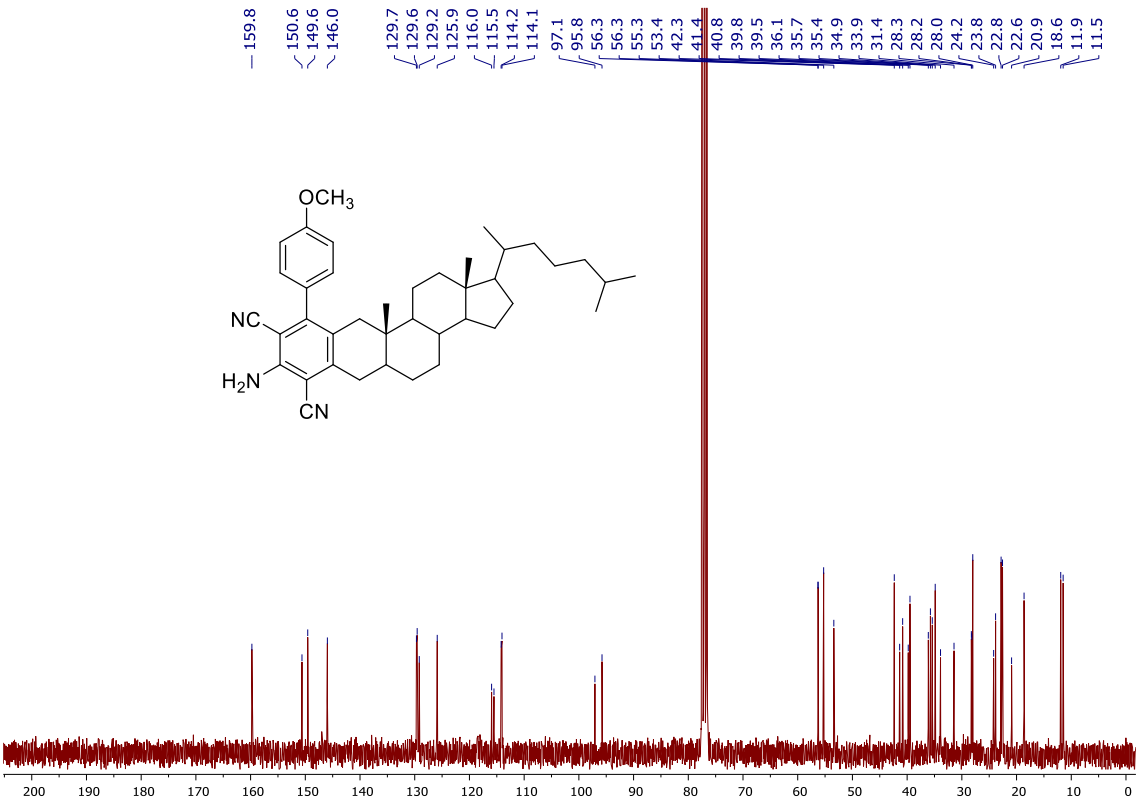

Figure S28: ^{13}C-NMR (75 MHz, $CDCl_3$) of compound **5c**.

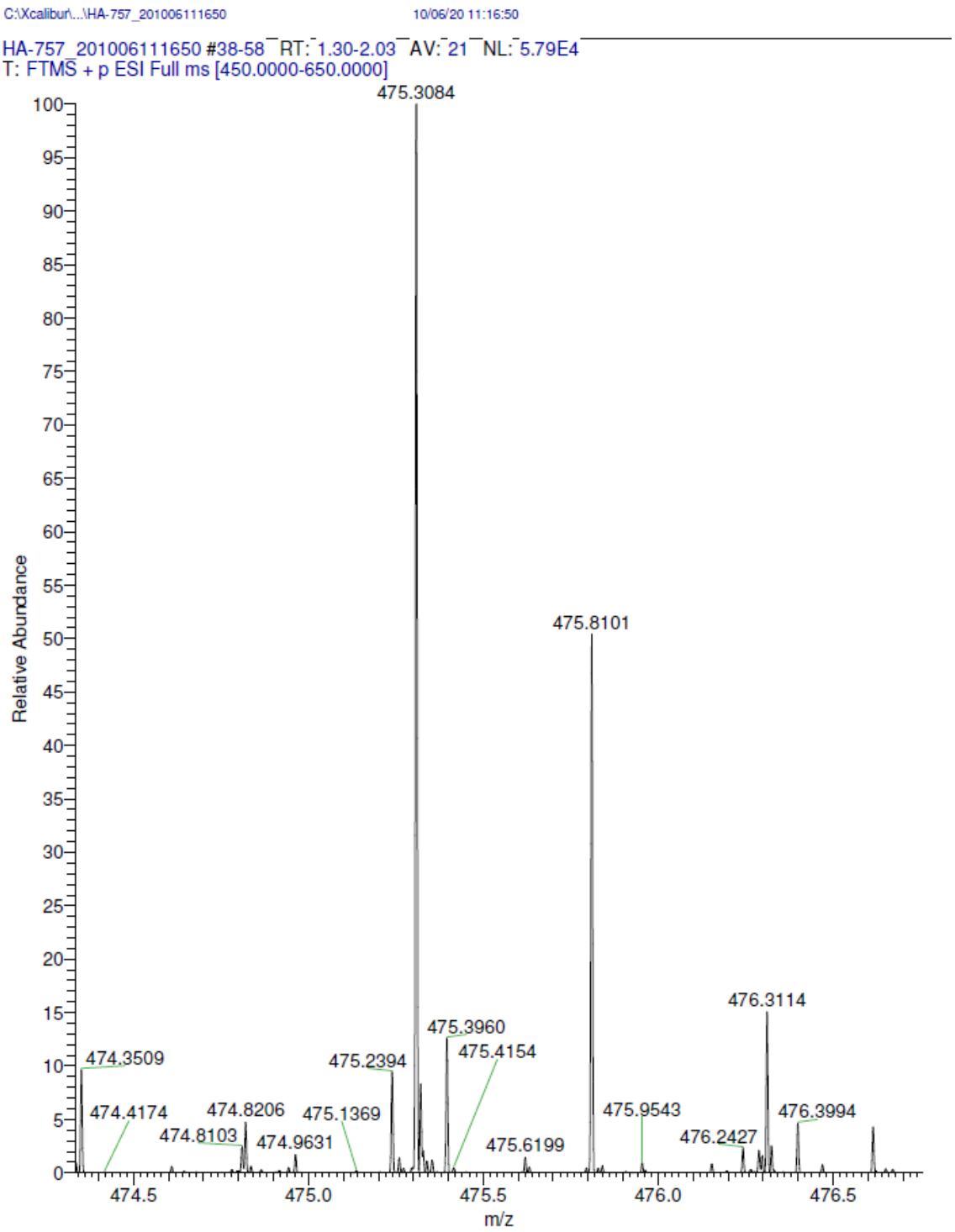

Figure S29: High-resolution mass spectrum of compound **3a**.

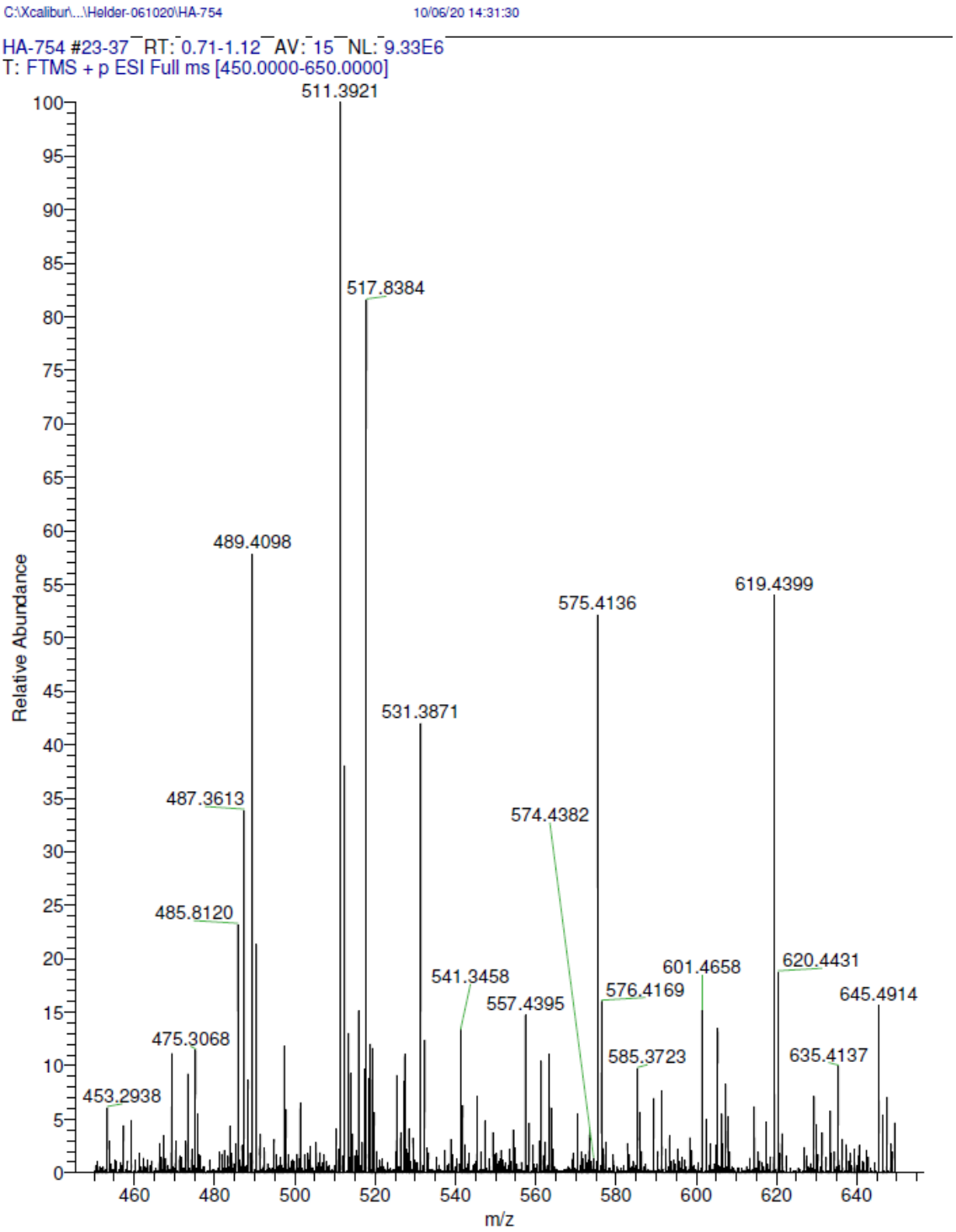

Figure S30: High-resolution mass spectrum of compound **3b**.

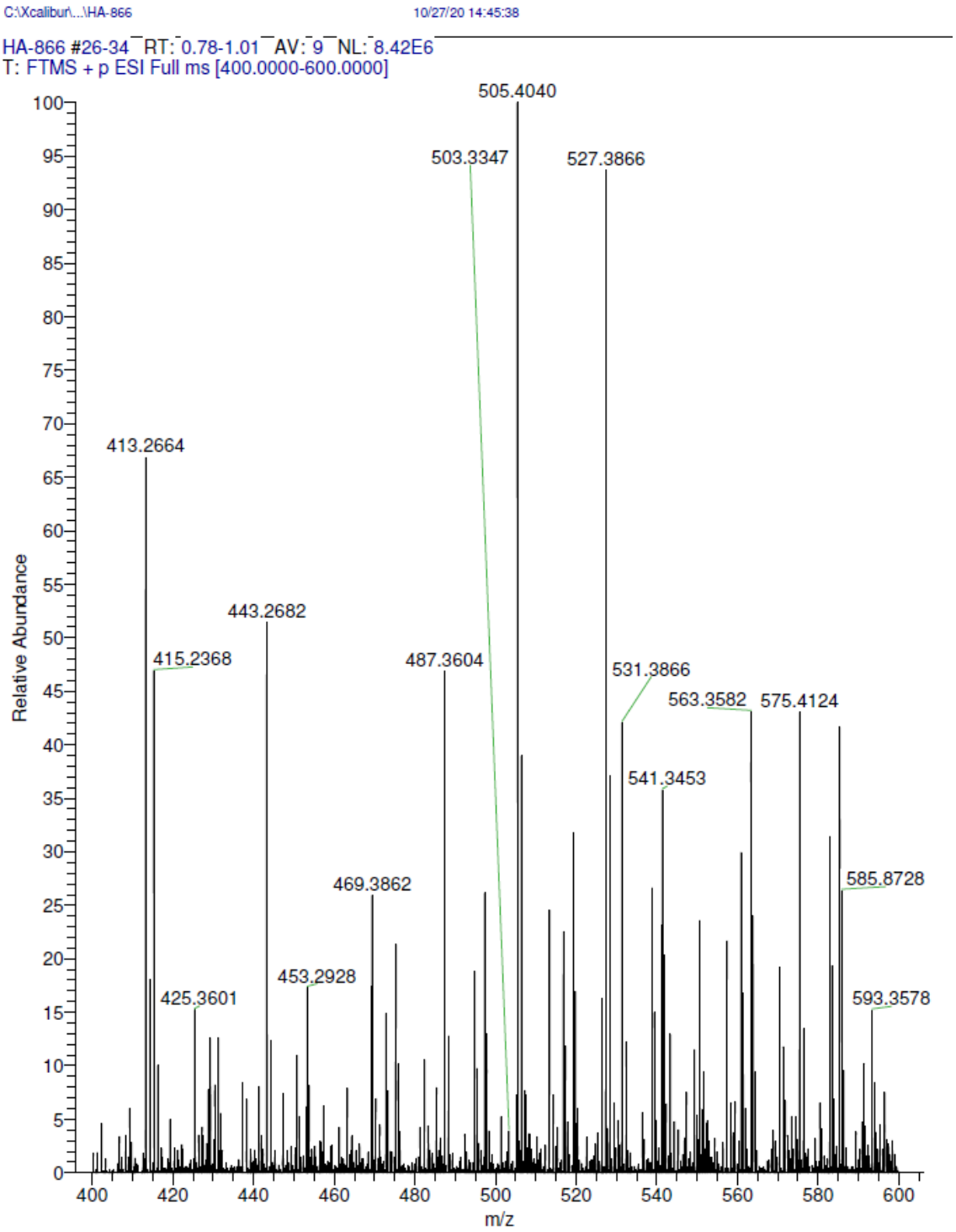

Figure S31: High-resolution mass spectrum of compound **3c**.

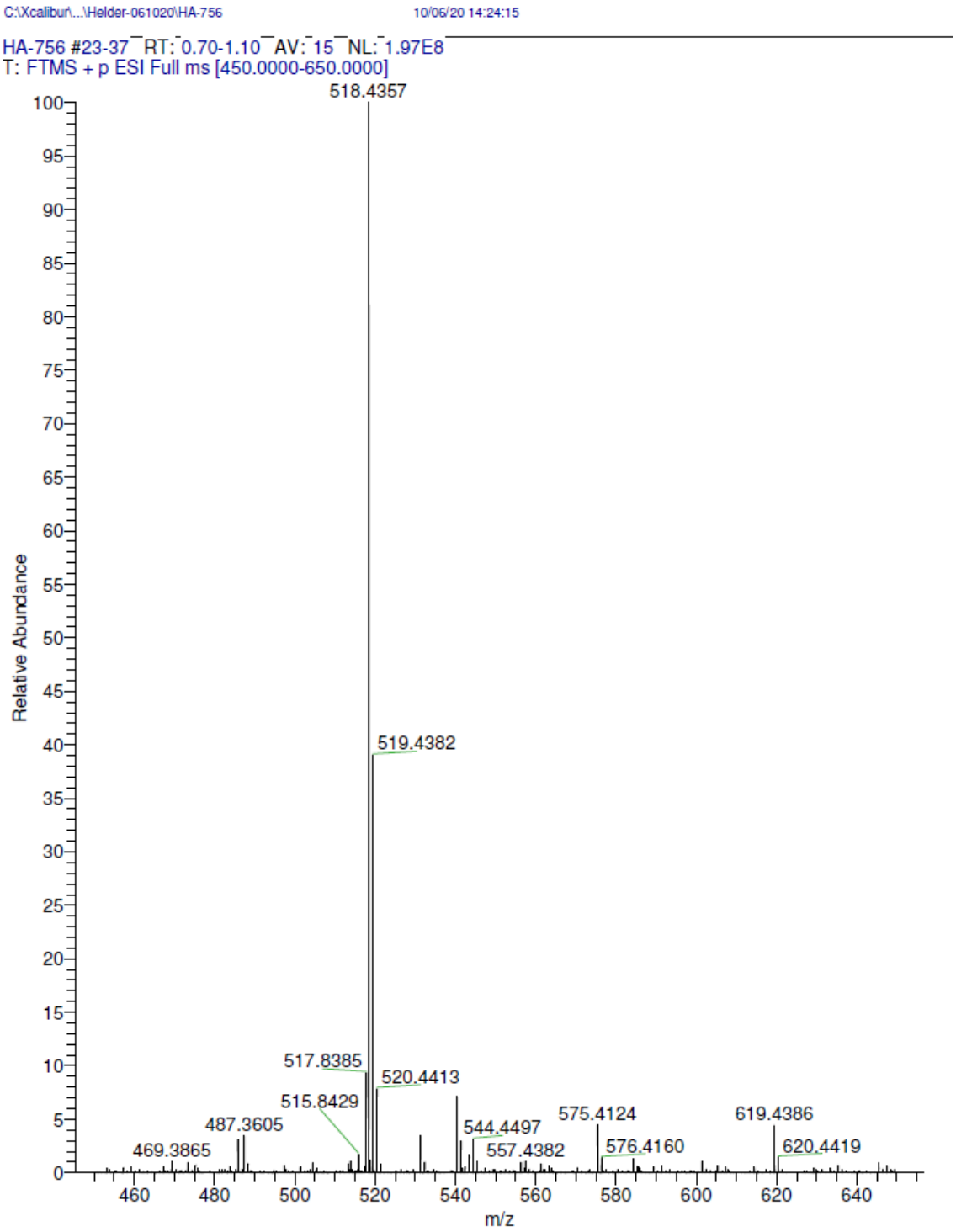

Figure S32: High-resolution mass spectrum of compound **3d**.

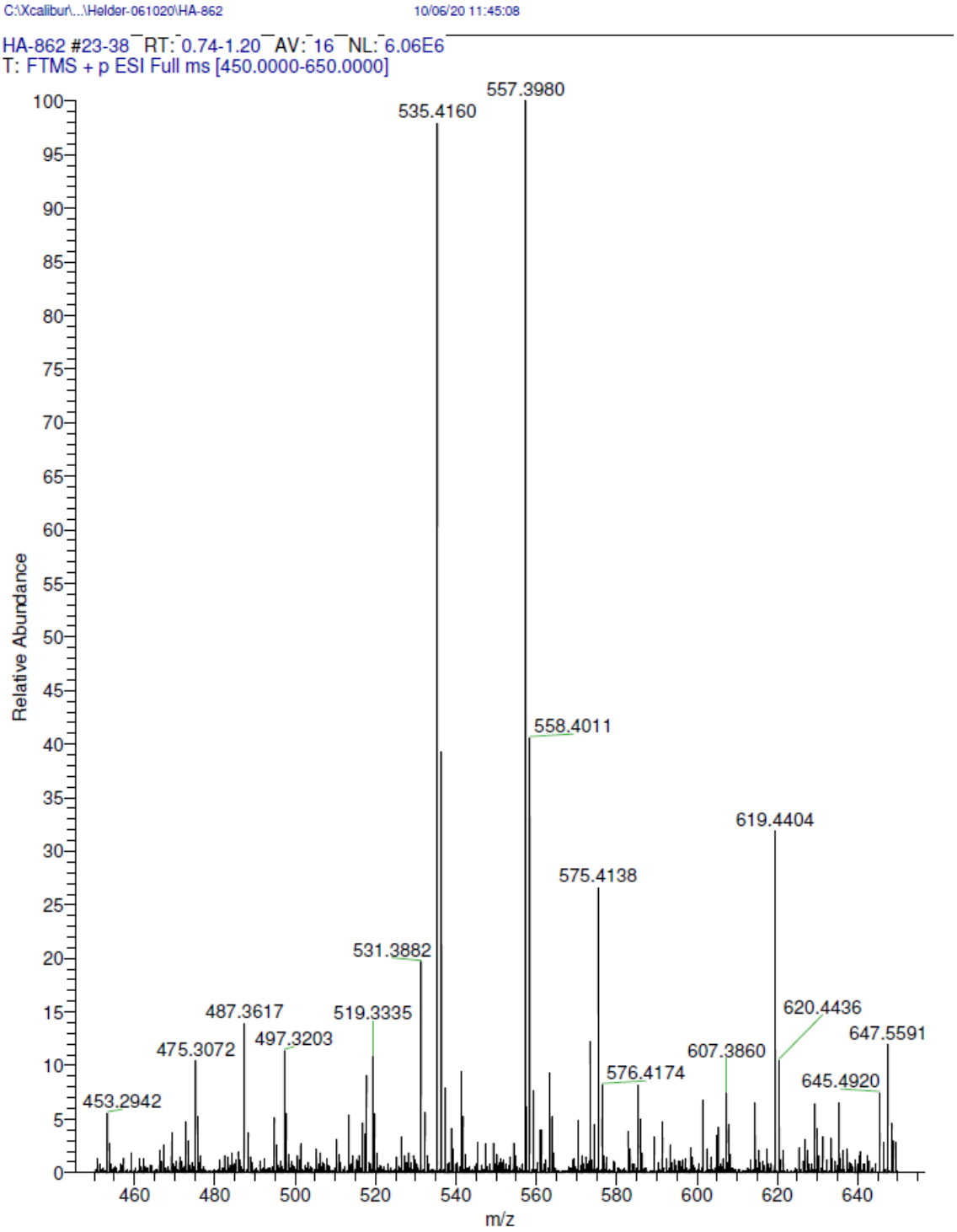

Figure S33: High-resolution mass spectrum of compound **3e**.

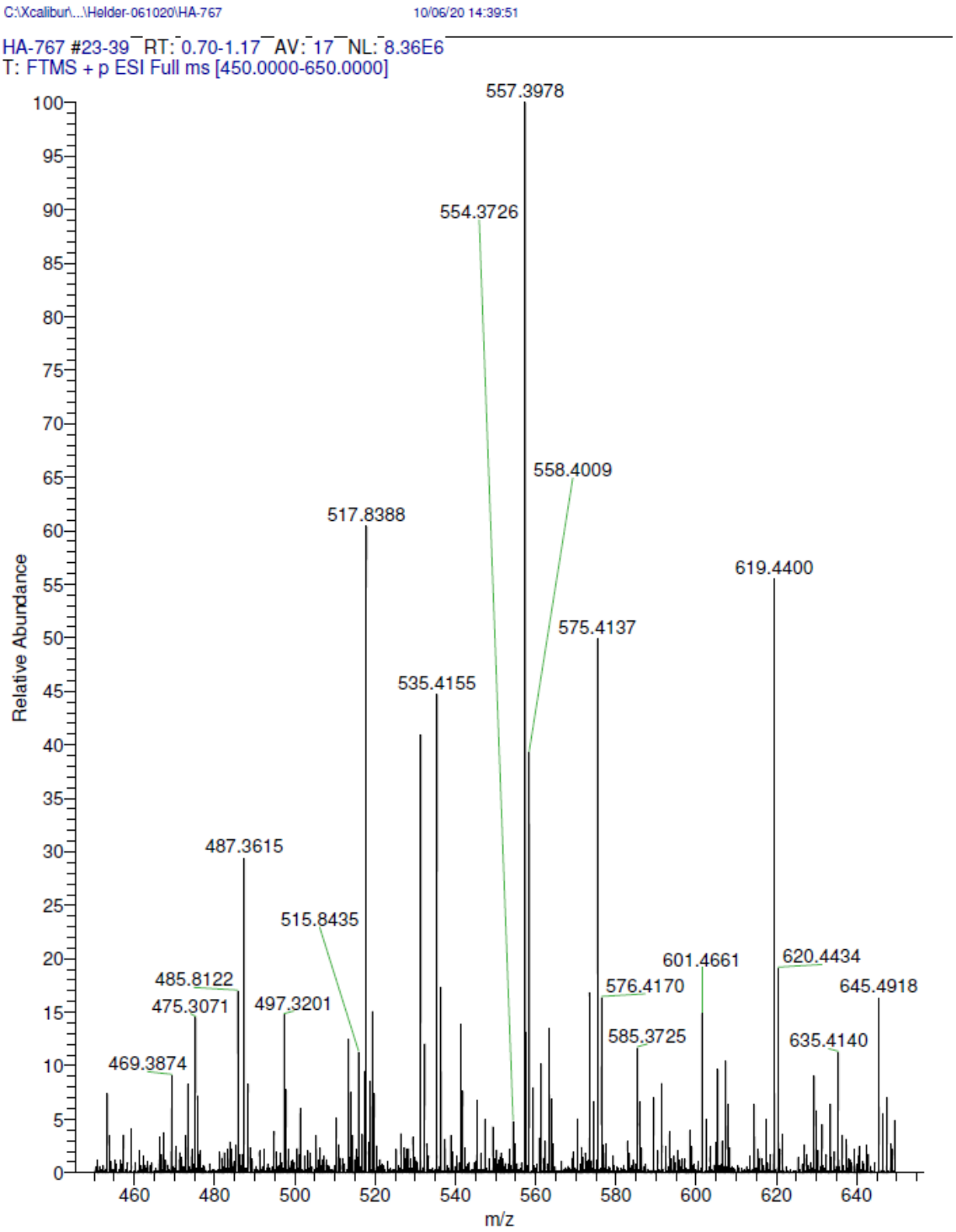

Figure S34: High-resolution mass spectrum of compound **3f**.

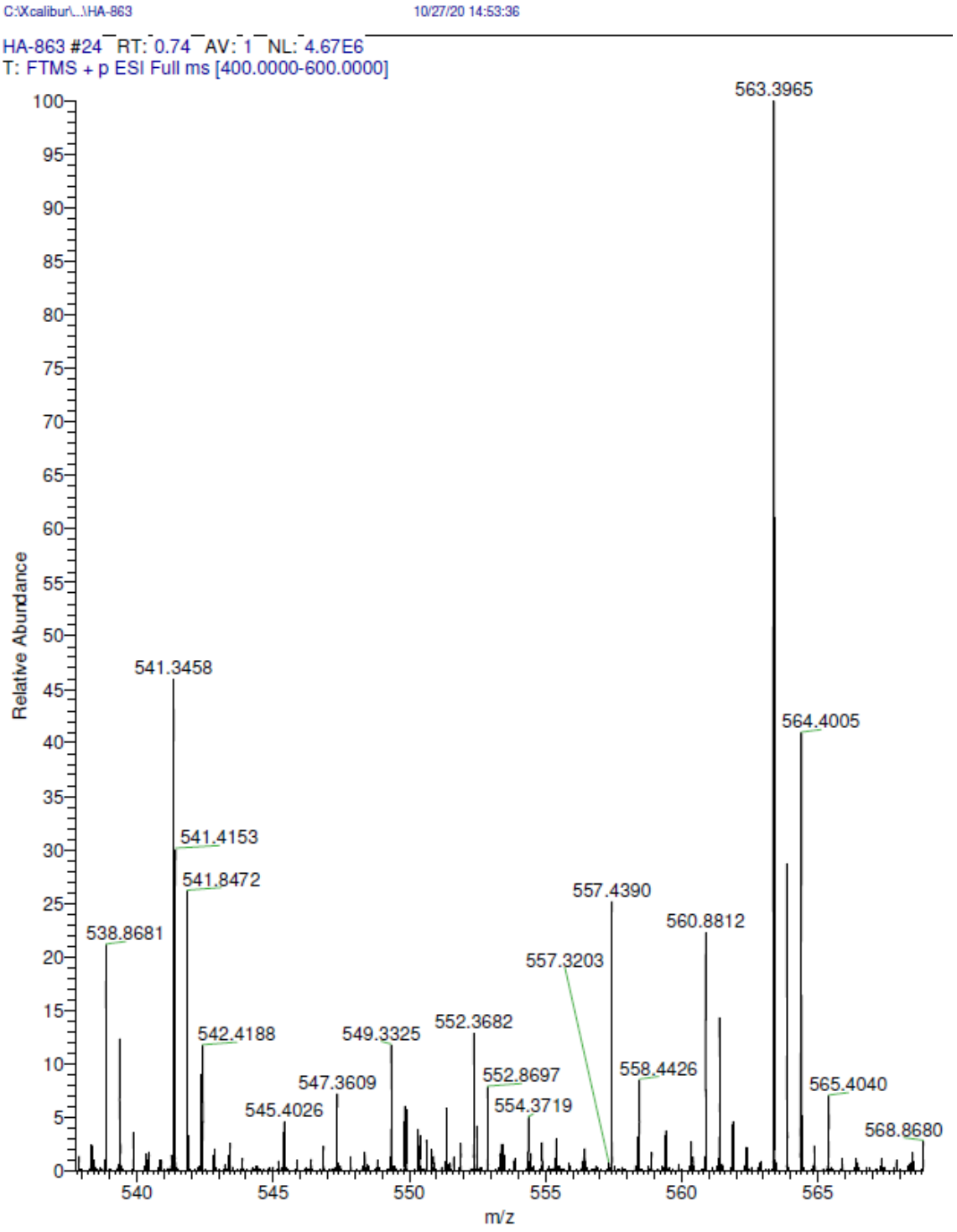

Figure S35: High-resolution mass spectrum of compound **4a**.

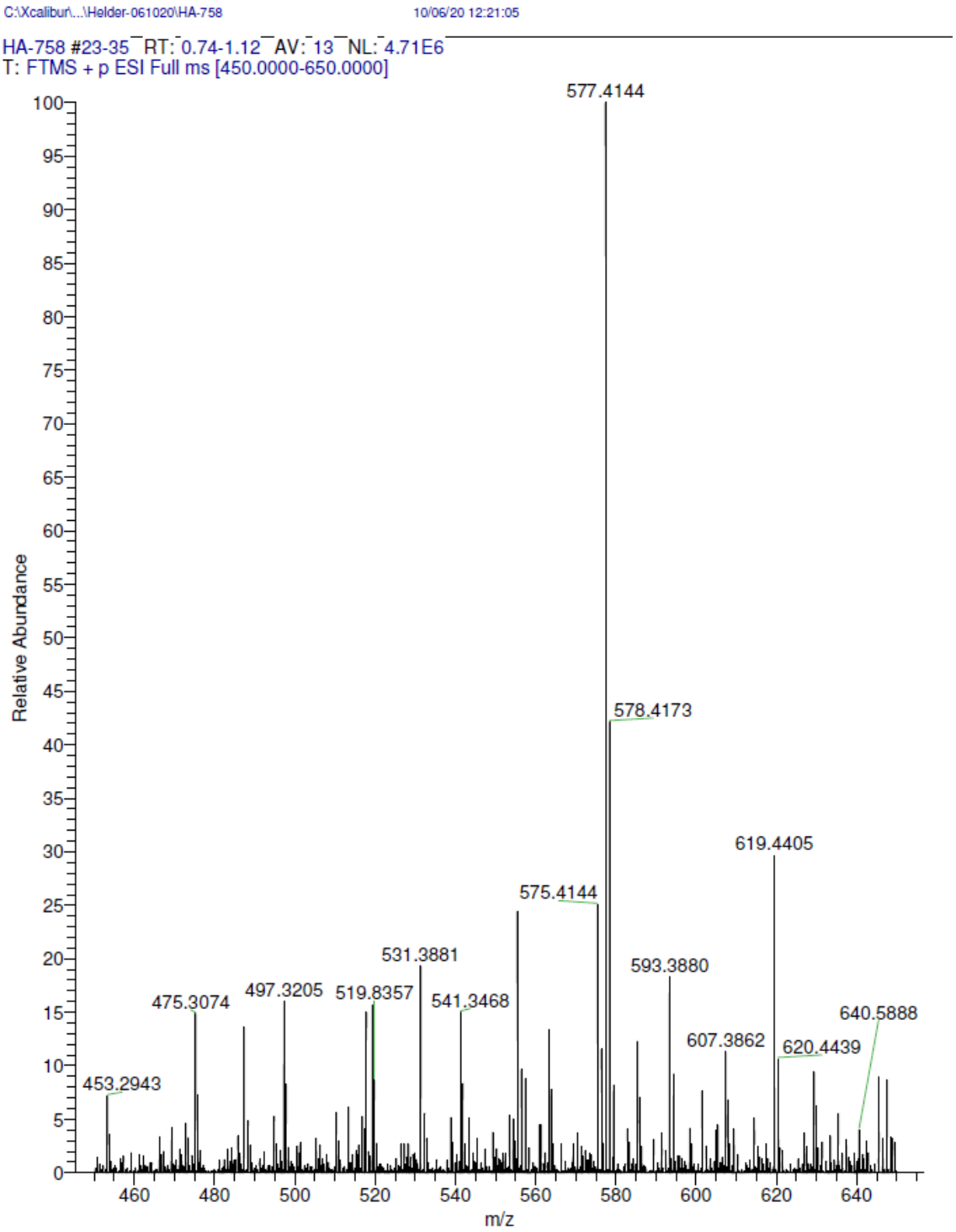

Figure S36: High-resolution mass spectrum of compound **4b**.

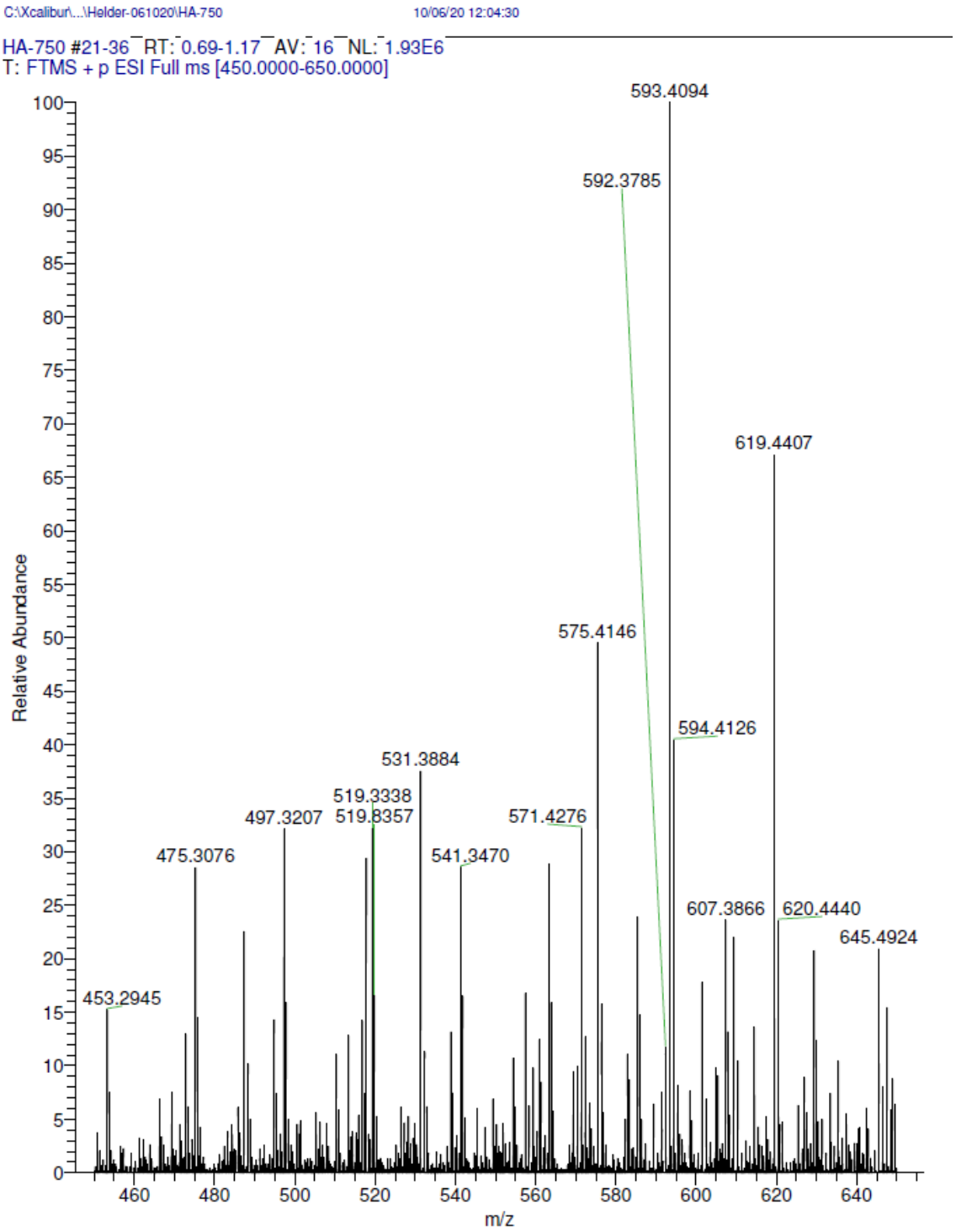

Figure S37: High-resolution mass spectrum of compound **4c**.

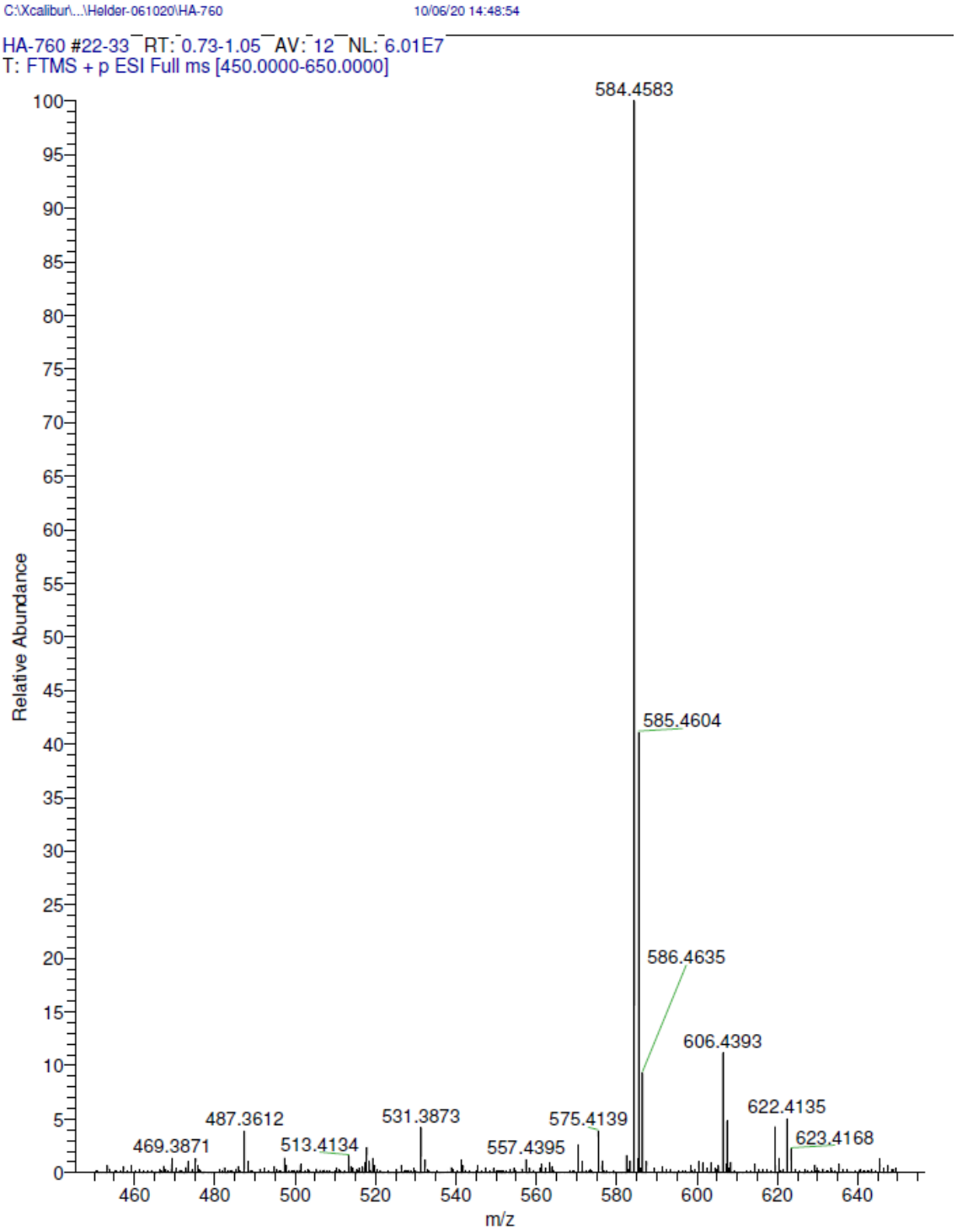

Figure S38: High-resolution mass spectrum of compound **4d**.

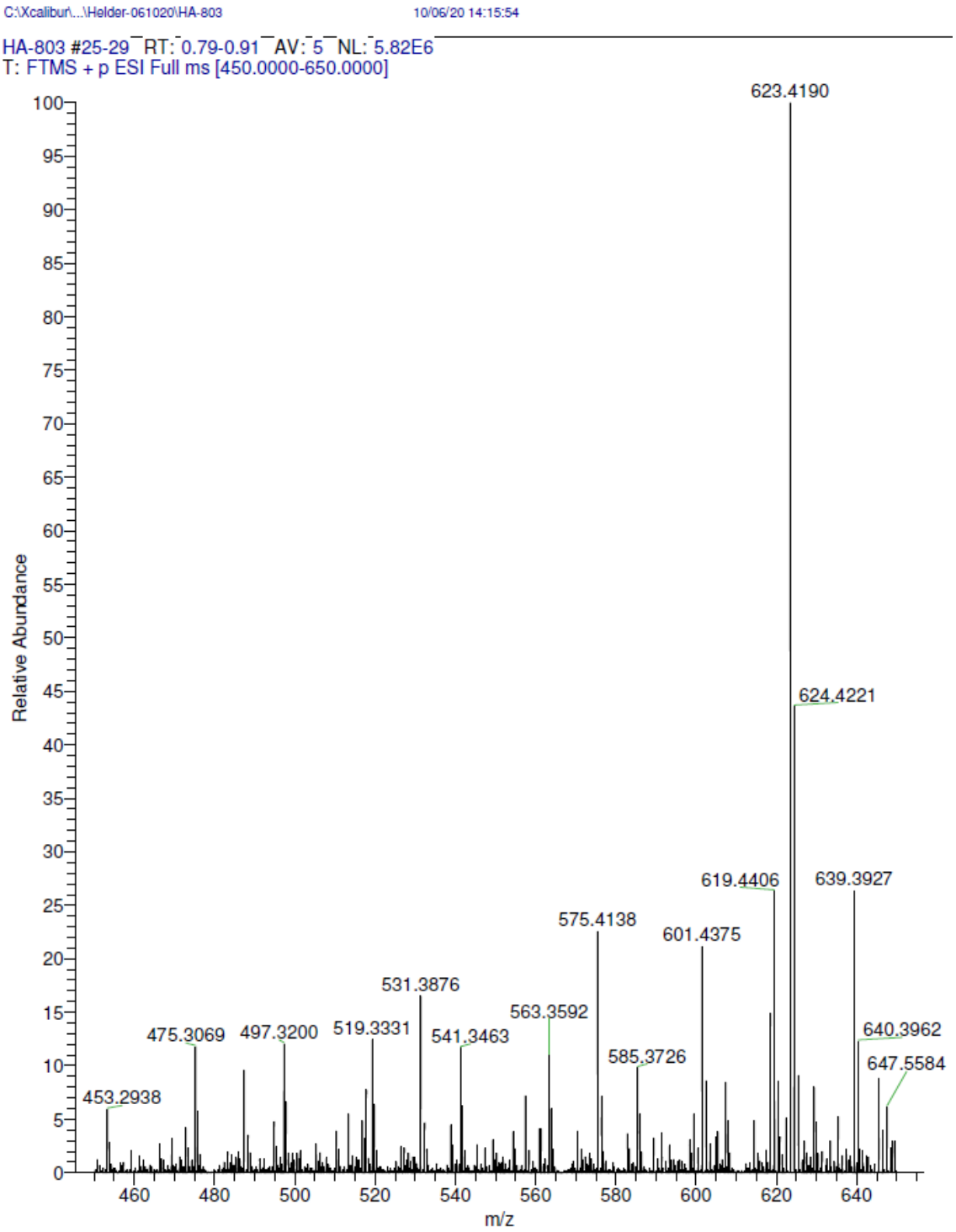

Figure S39: High-resolution mass spectrum of compound **4e**.

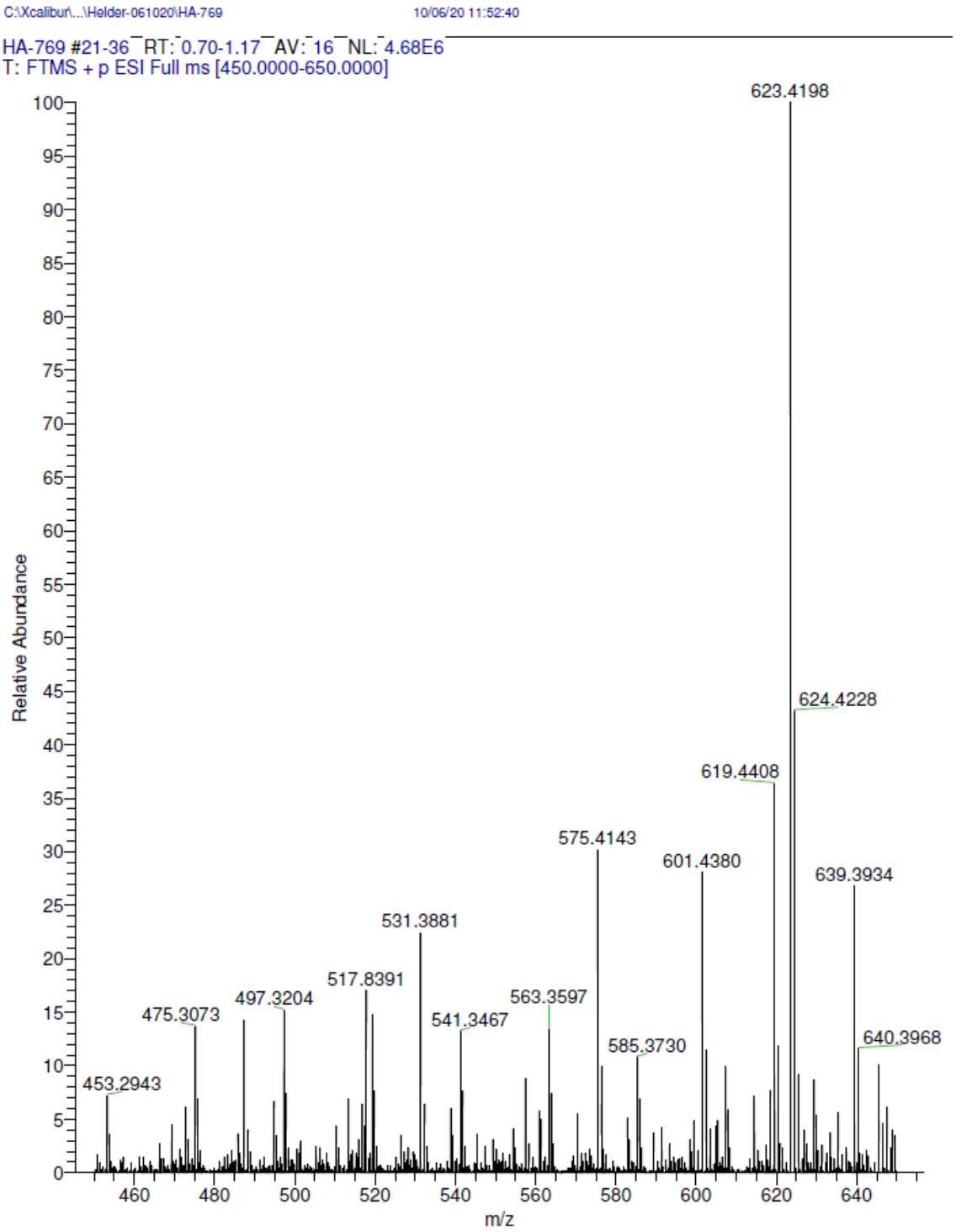

Figure S40: High-resolution mass spectrum of compound **4f**.

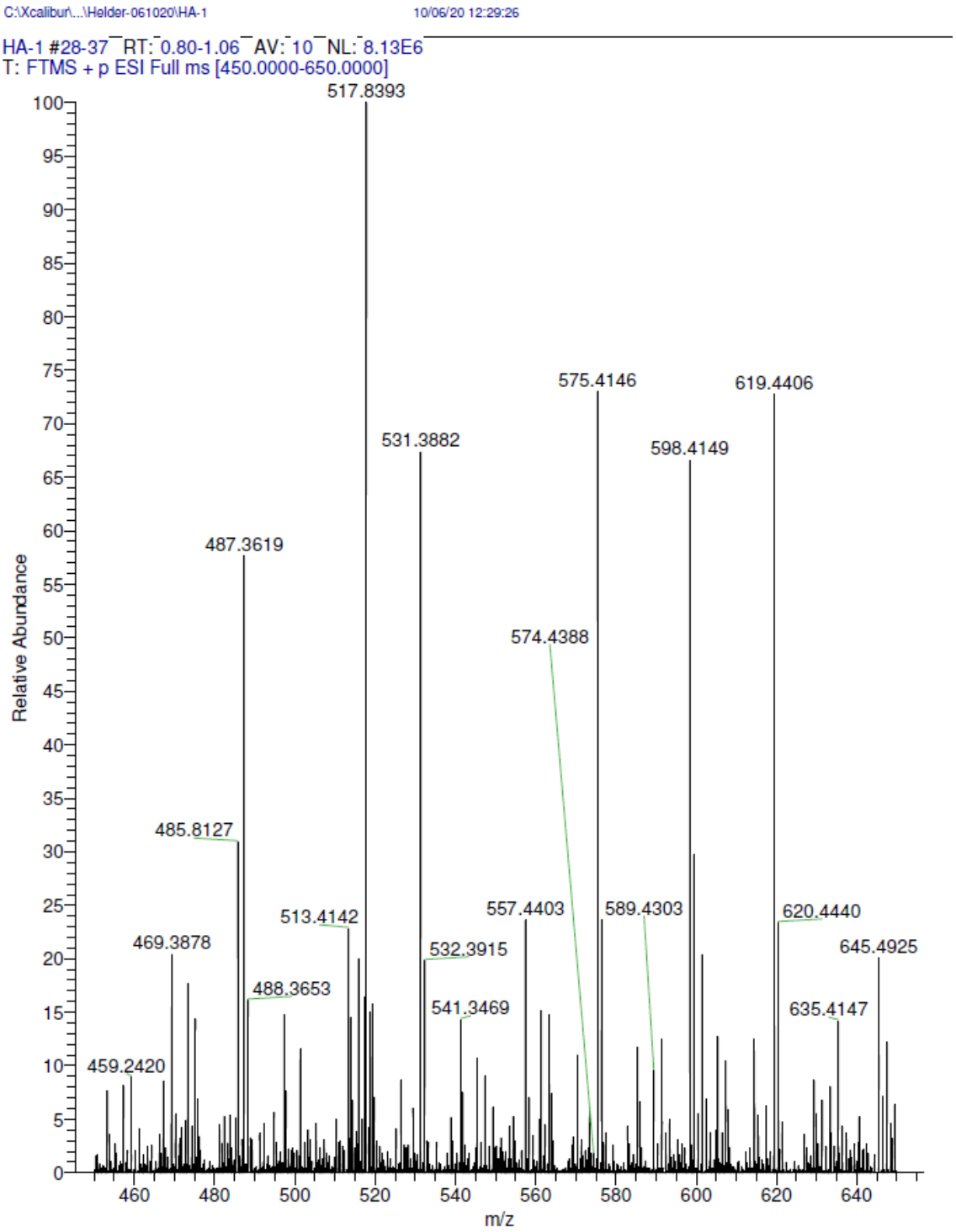

Figure S41: High-resolution mass spectrum of compound **5b**.

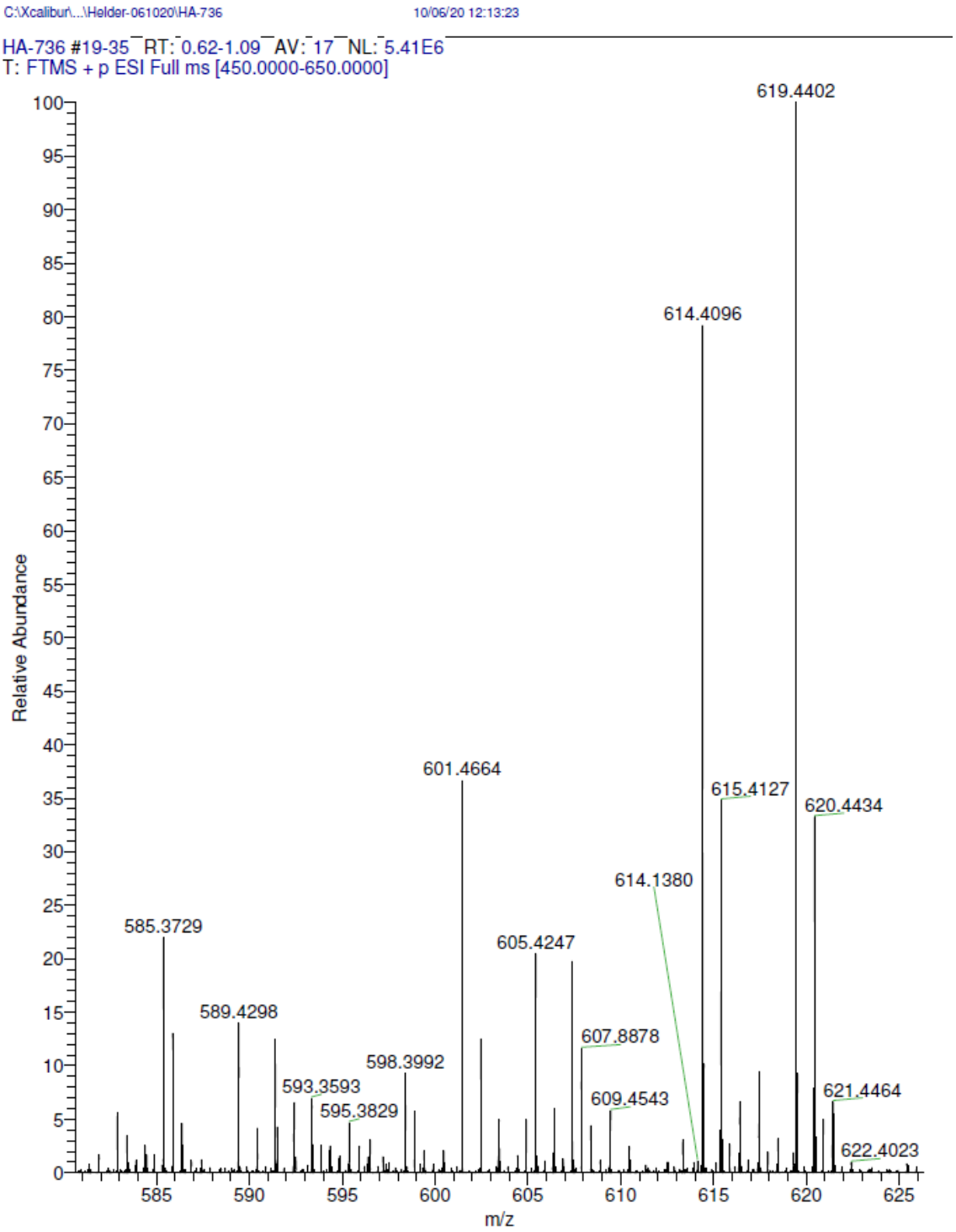

Figure S42: High-resolution mass spectrum of compound **5c**.

