SUPPLEMENTARY INFORMATION

Synthesis and Evaluation of Chalcone-Quinoline based Molecular Hybrids as potential Anti-Malarial Agents

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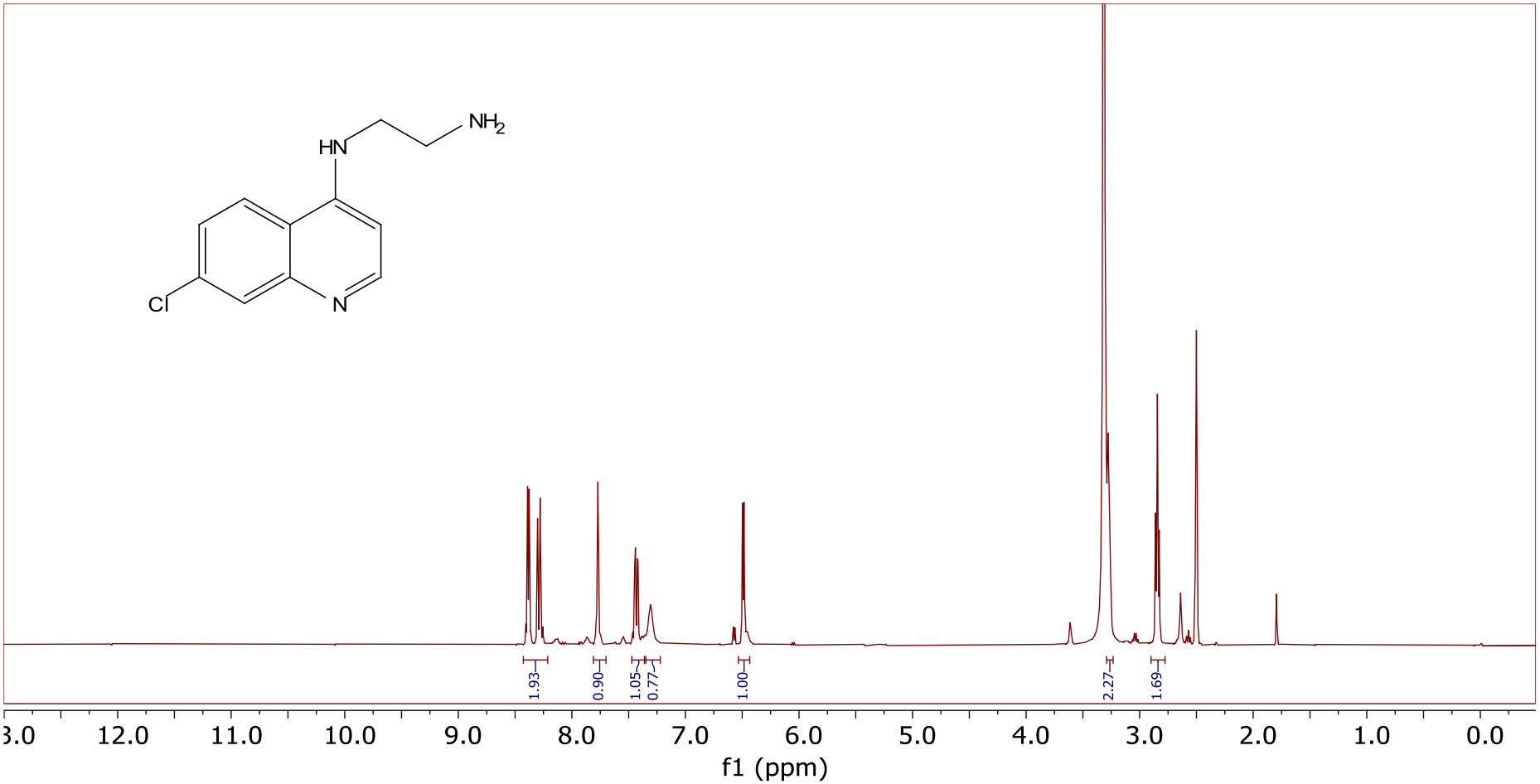
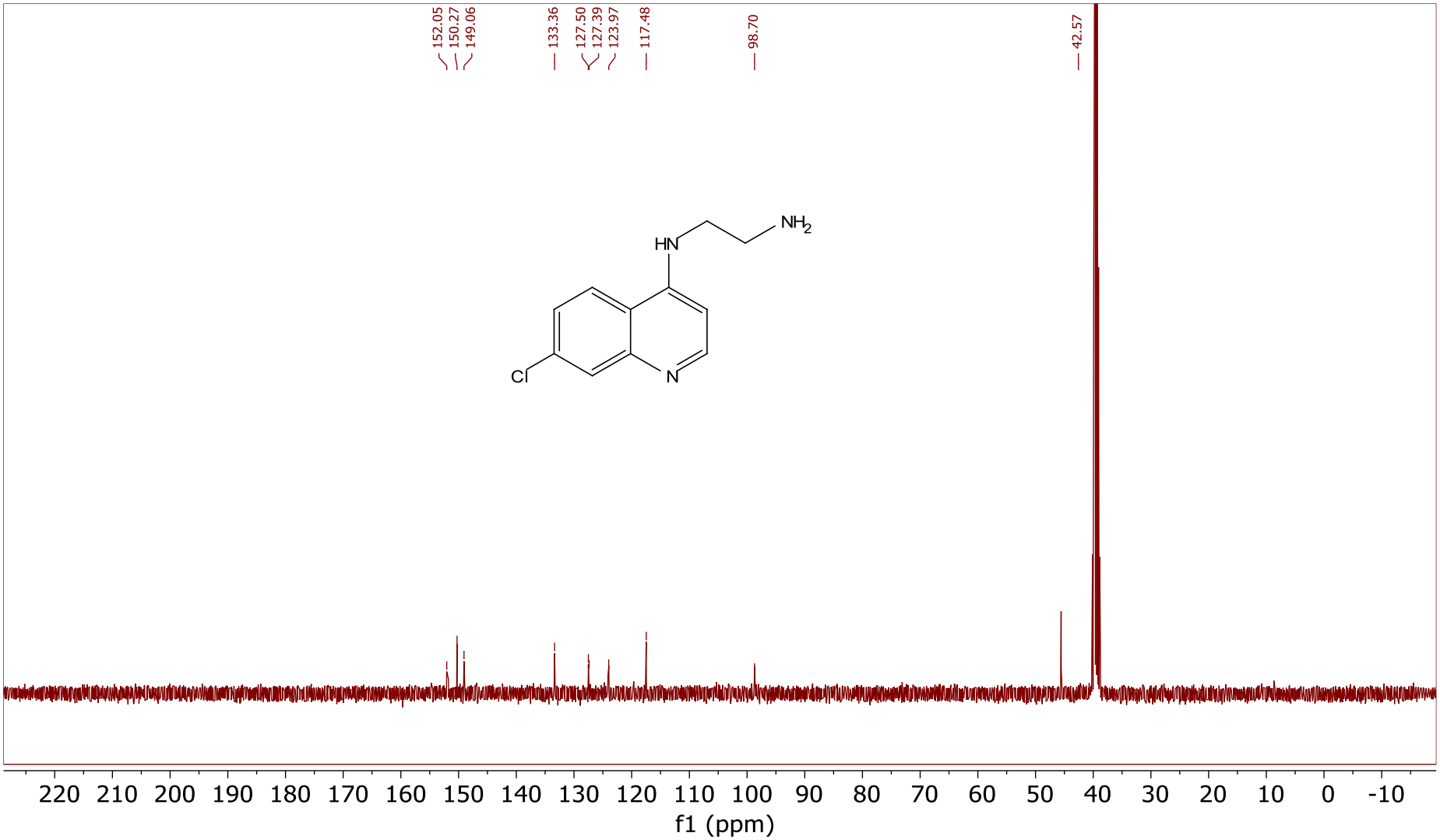
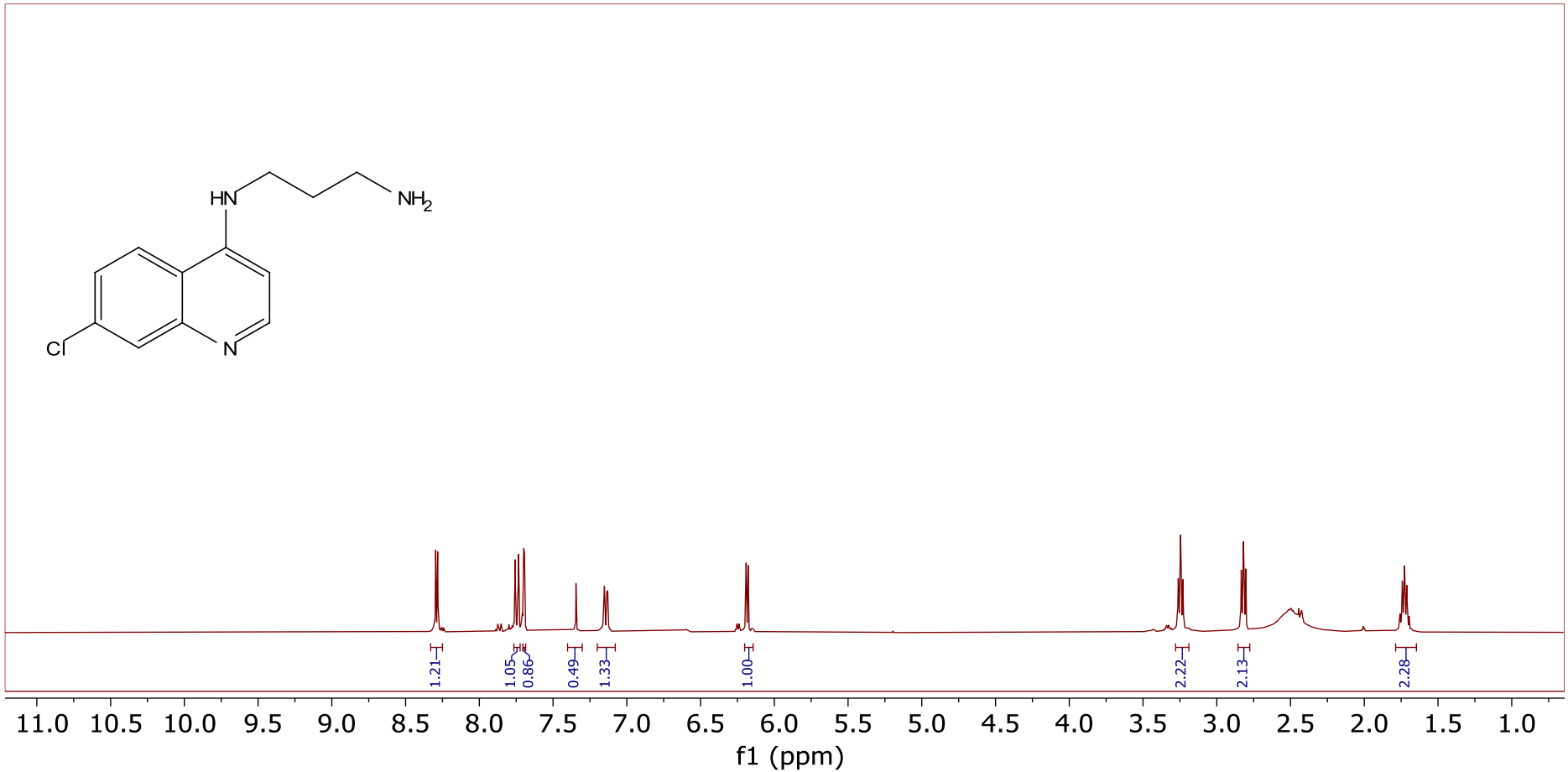


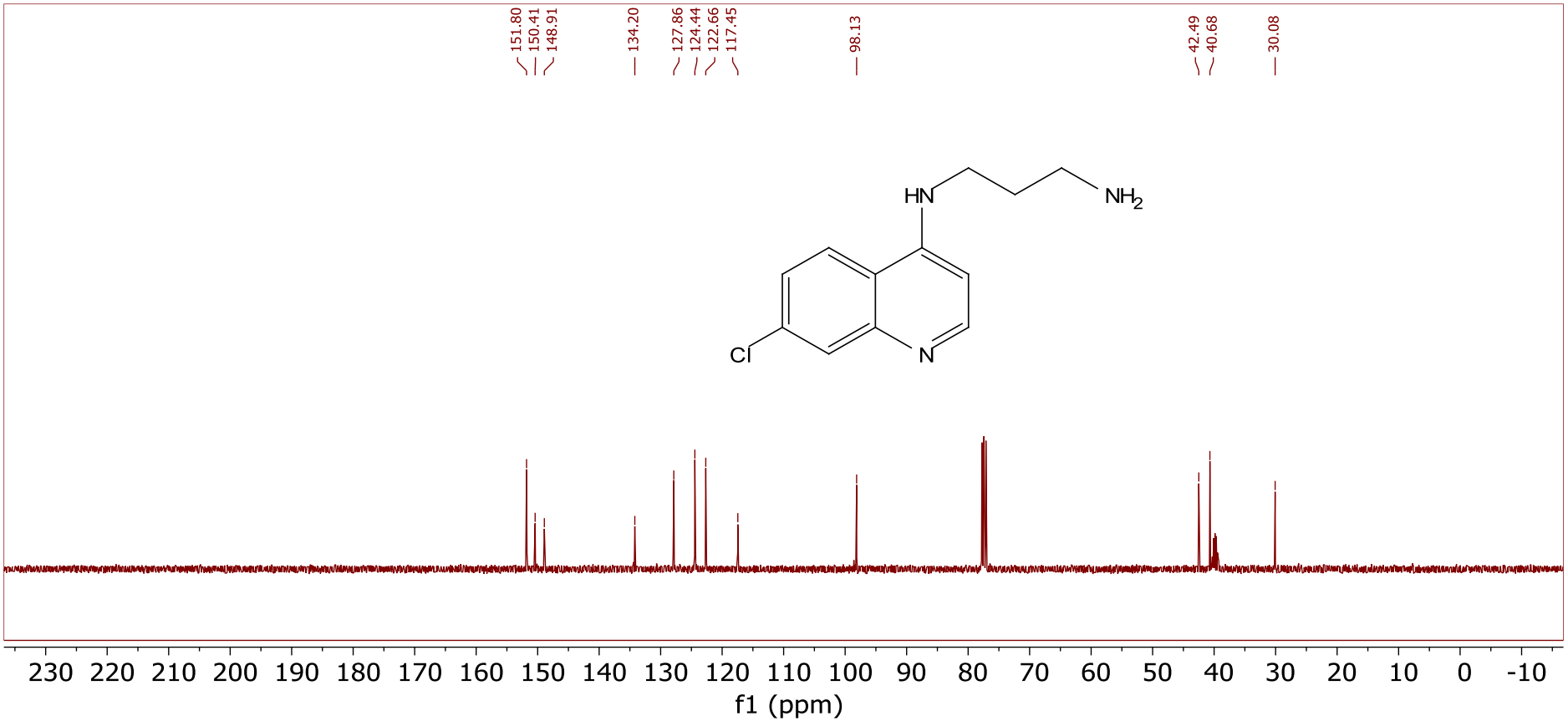
S1: ^{1}H NMR spectrum of *N*-(7-chloroquinolin-4-yl)ethane-1,2-diamine **2**



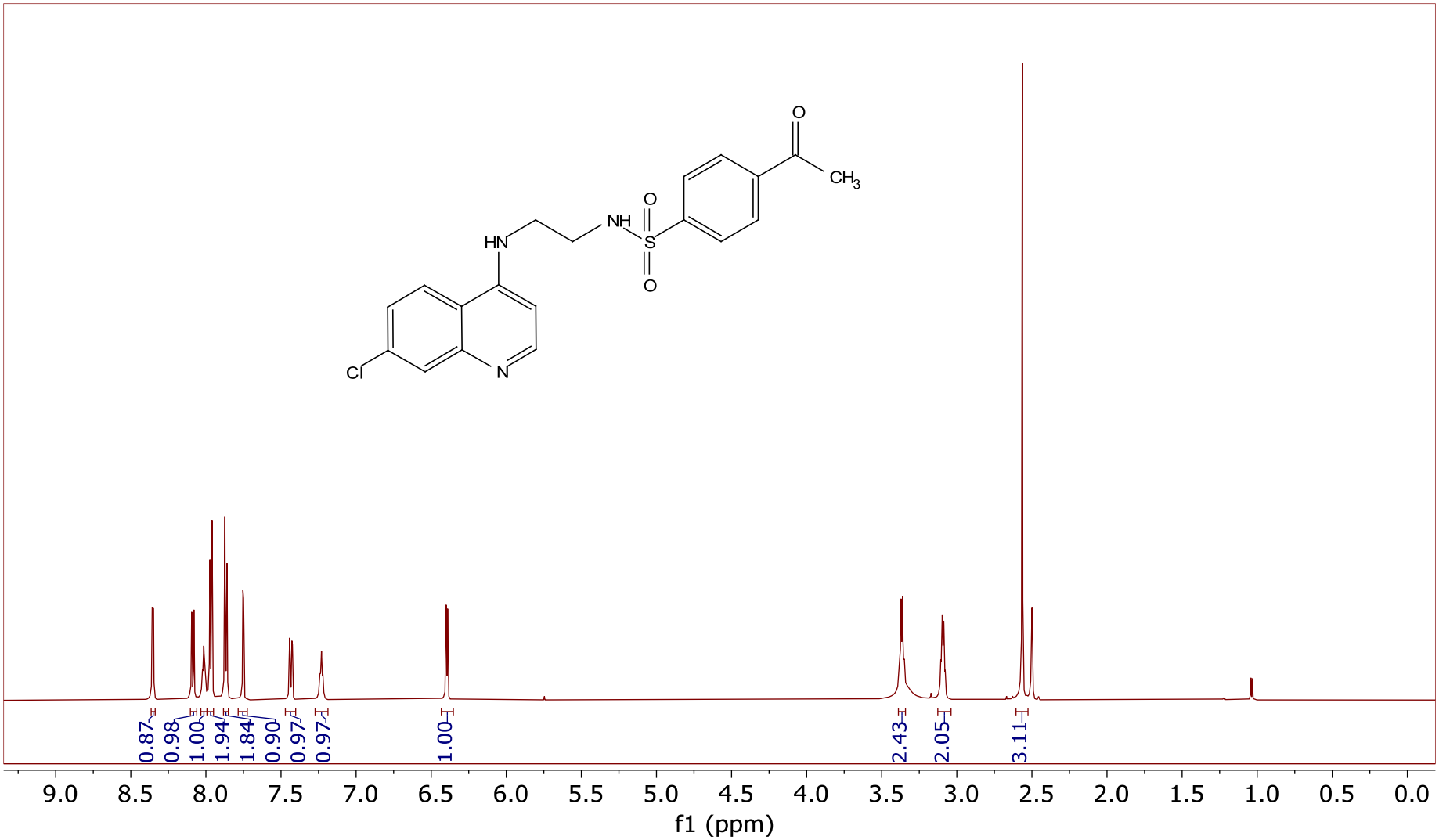
S2: ^{13}C NMR spectrum of N-(7-chloroquinolin-4-yl)ethane-1,2-diamine **2**



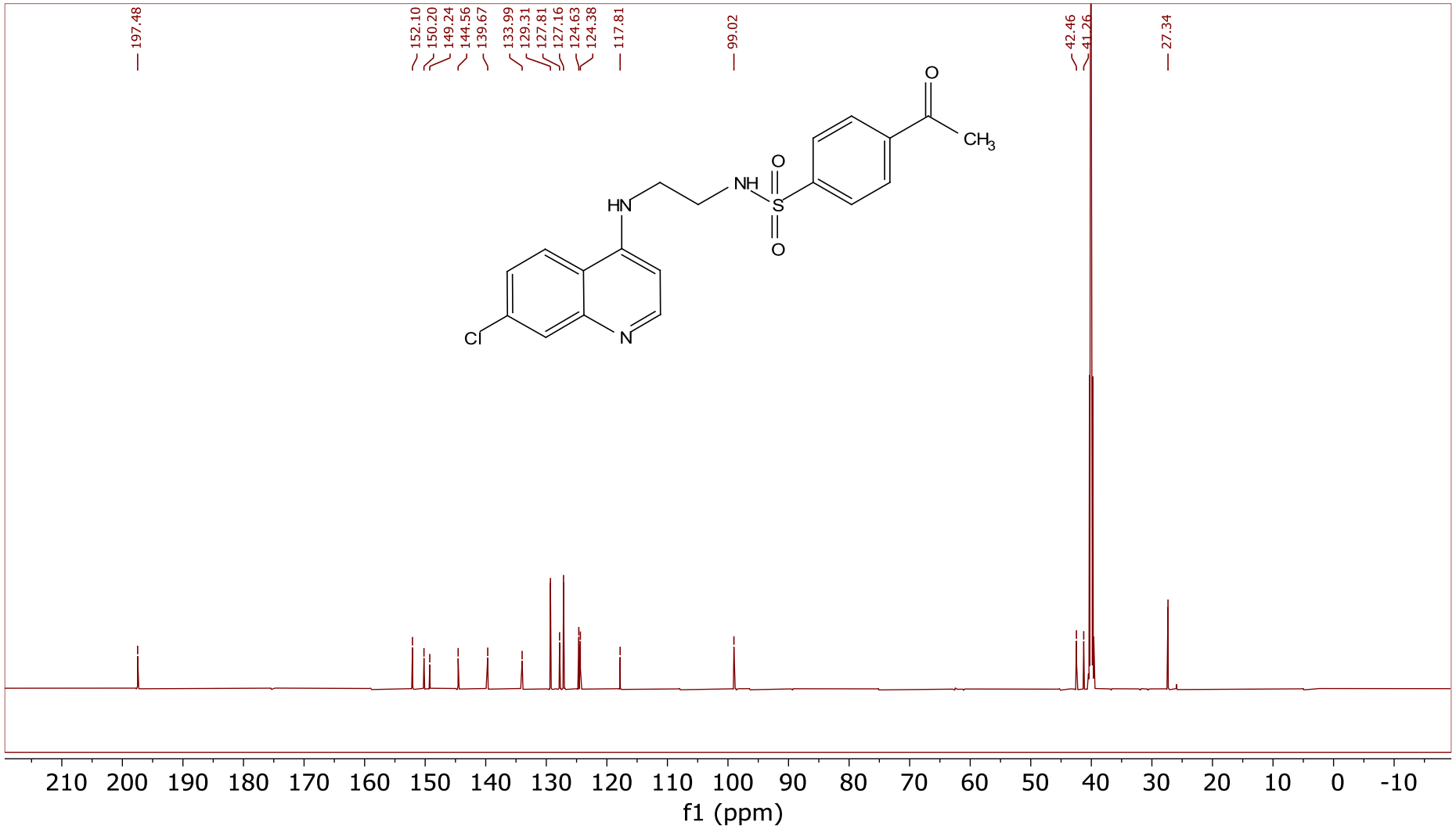
S3: ^{1}H NMR spectrum of N-(7-chloroquinolin-4-yl)propane-1,3-diamine **3**



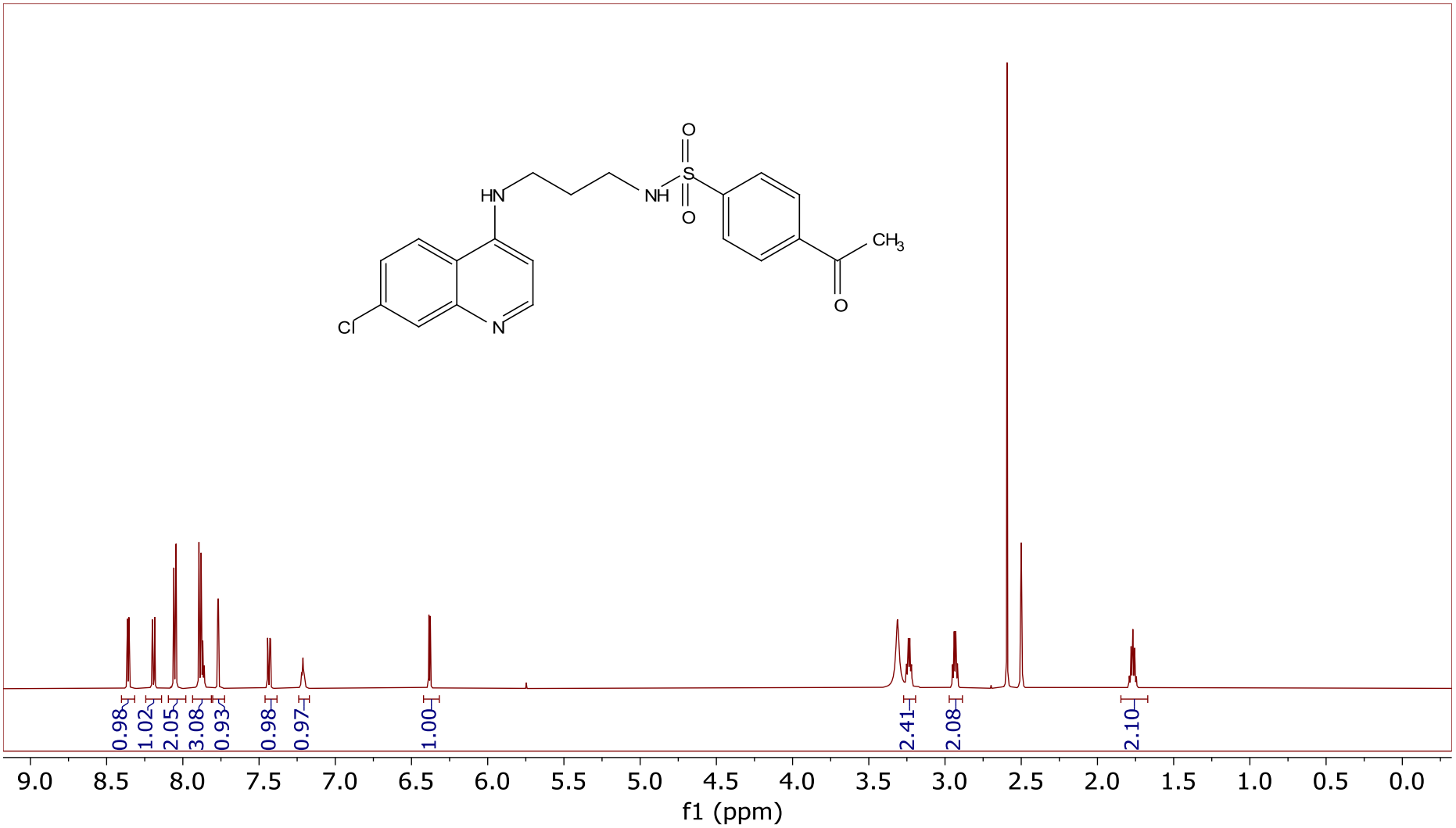
S4: ^{13}C NMR spectrum of N-(7-chloroquinolin-4-yl)propane-1,3-diamine **3**



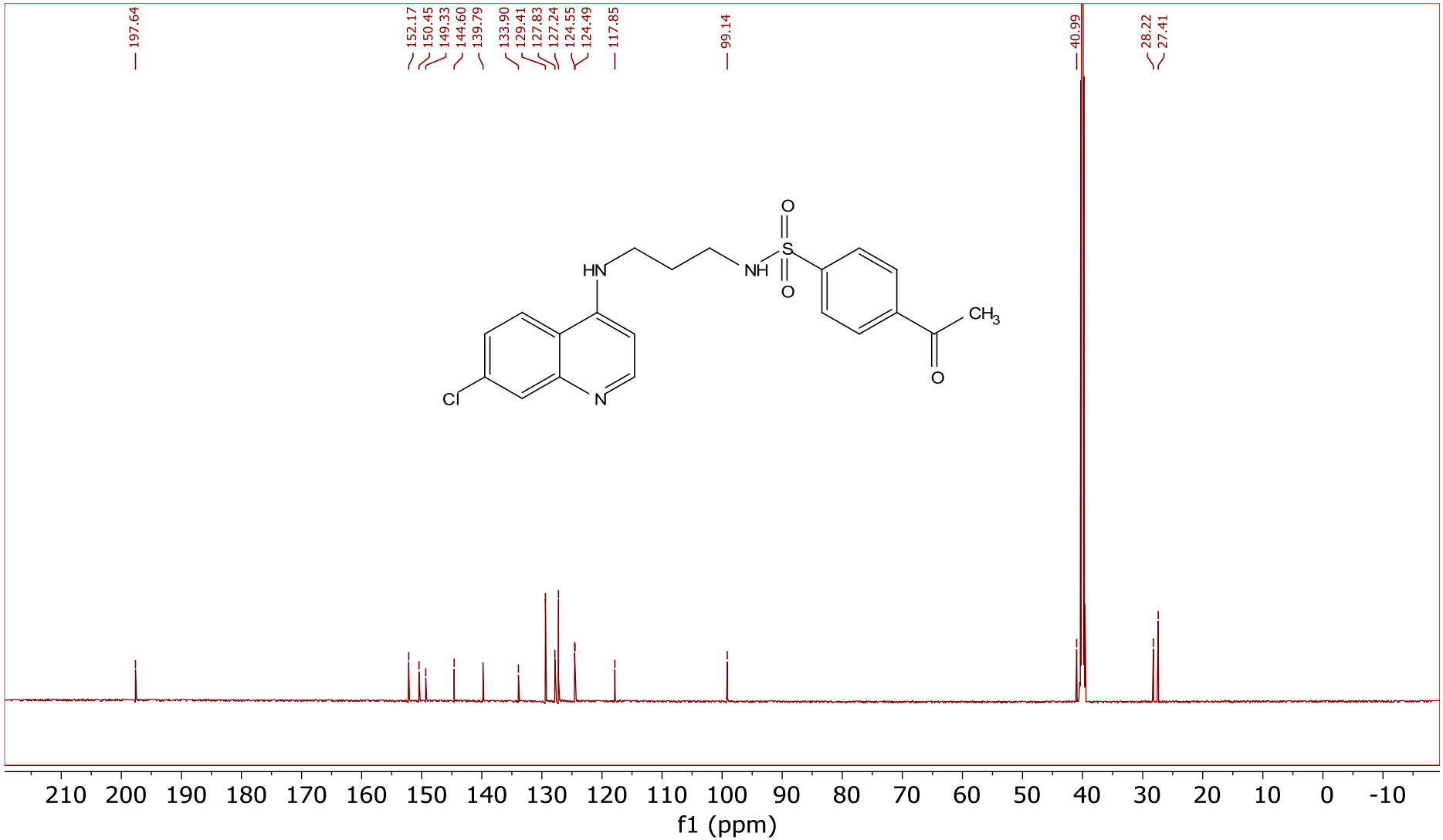
S5: ^{1}H NMR spectrum of 4-acetyl-*N*-{2-[(7-chloroquinolin-4-yl)amino]ethyl}benzenesulfonamide **4**



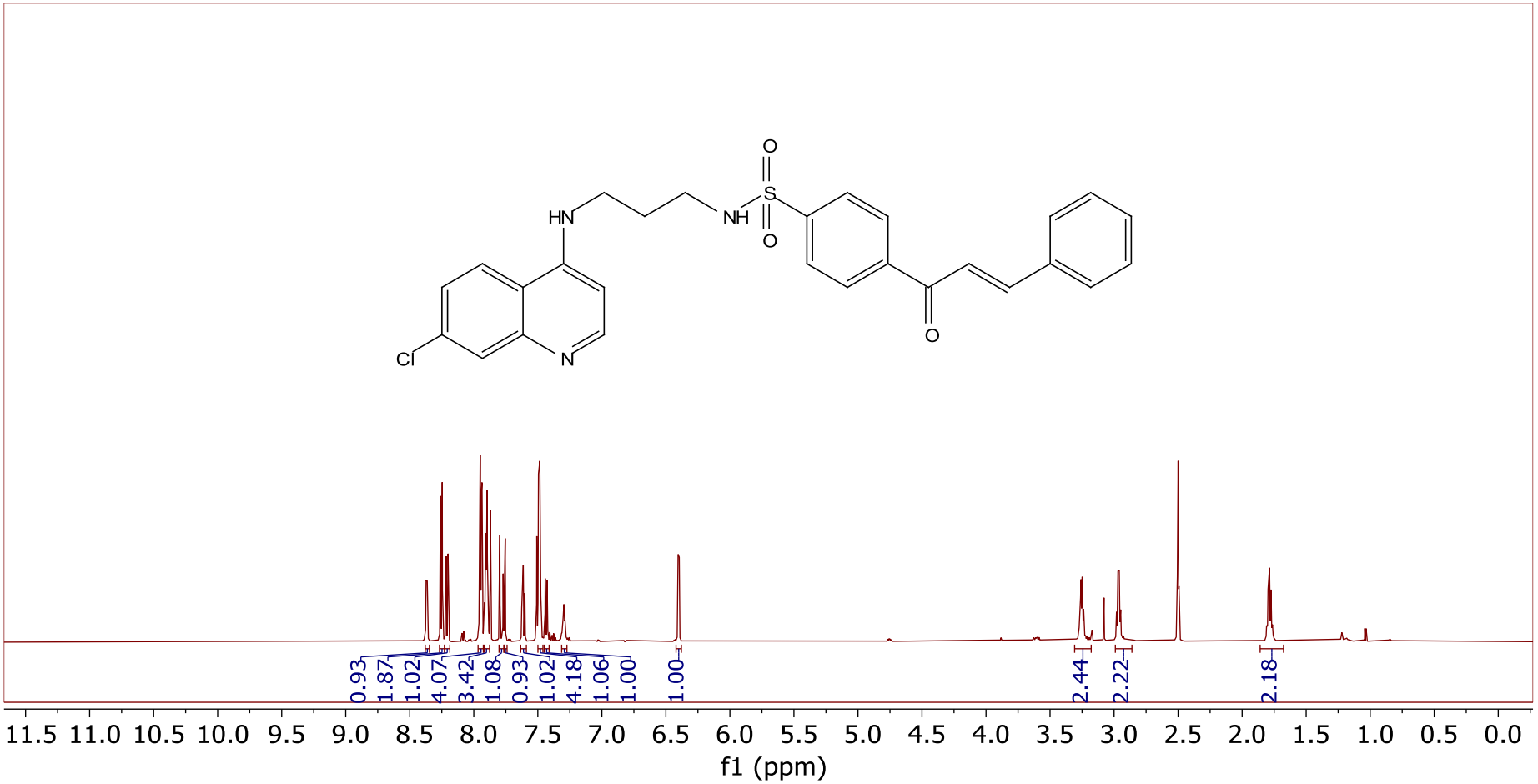
S6: ^{13}C NMR spectrum of 4-acetyl-*N*-{2-[(7-chloroquinolin-4-yl)amino]ethyl}benzenesulfonamide **4**



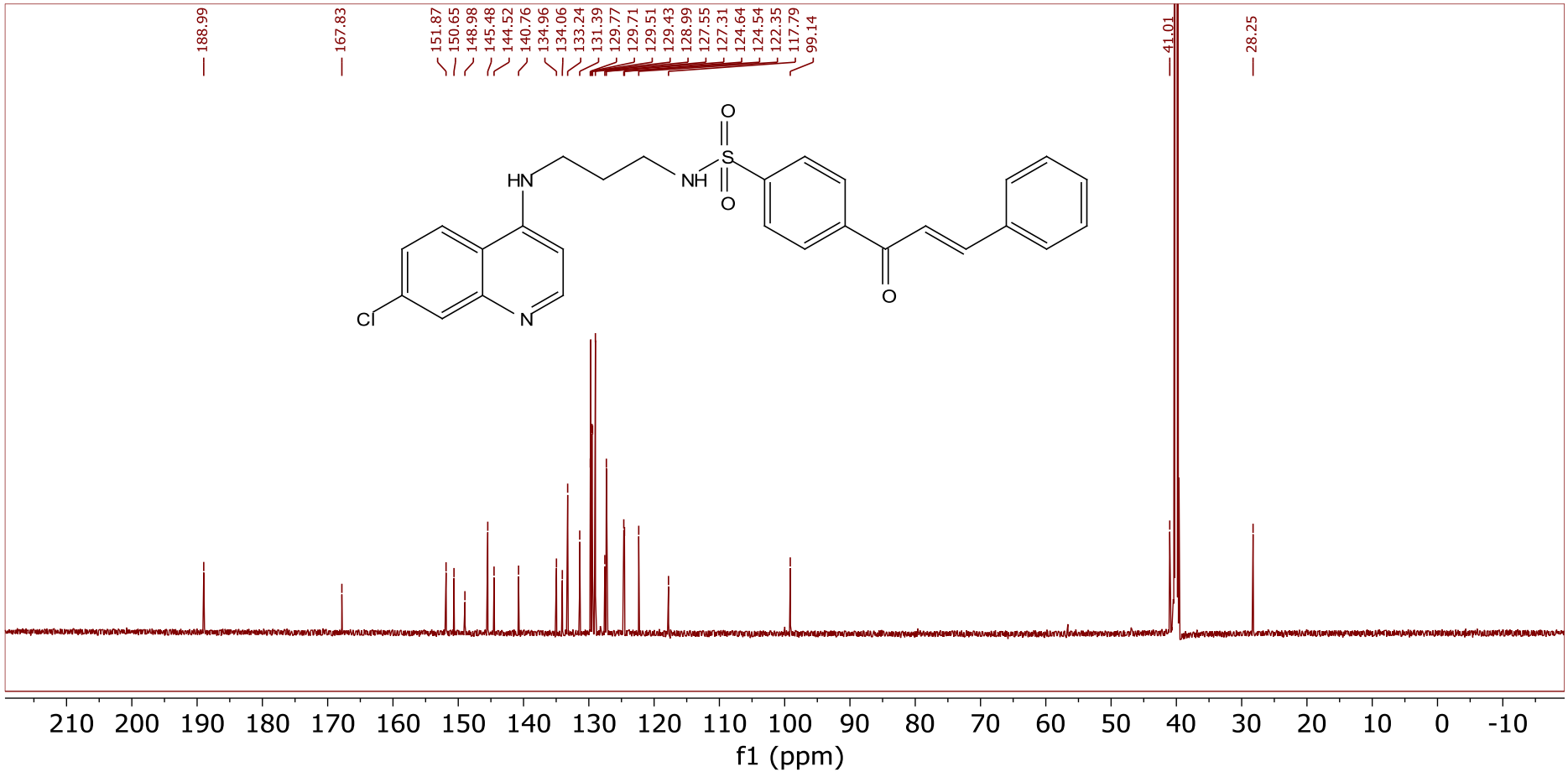
S7: ^{1}H NMR spectrum of 4-acetyl-*N*-{3-[(7-chloroquinolin-4-yl)amino]propyl}benzenesulfonamide **5**



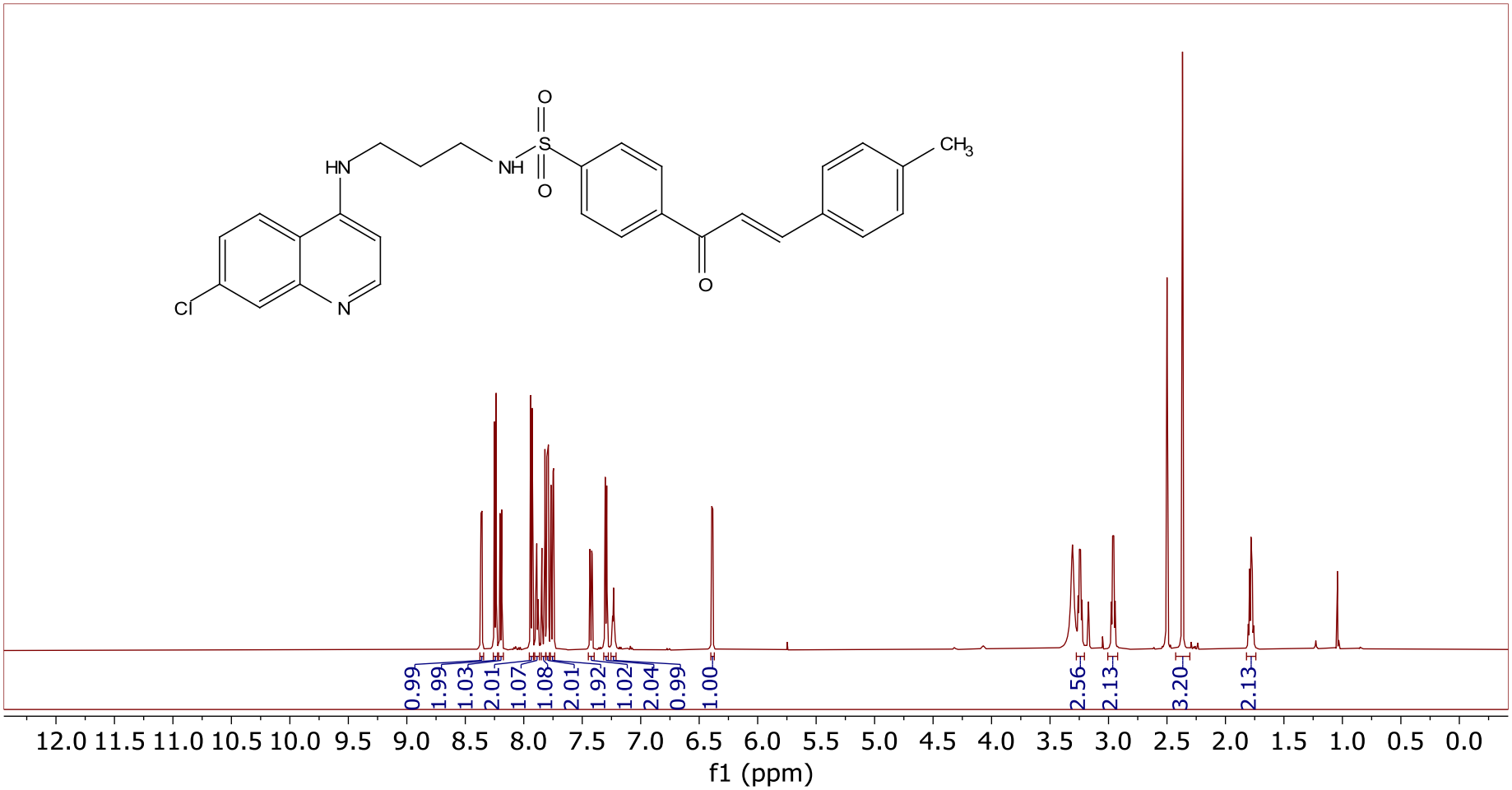
S8: ^{13}C NMR spectrum of 4-acetyl-N-{3-[(7-chloroquinolin-4-yl)amino]propyl}benzenesulfonamide **5**



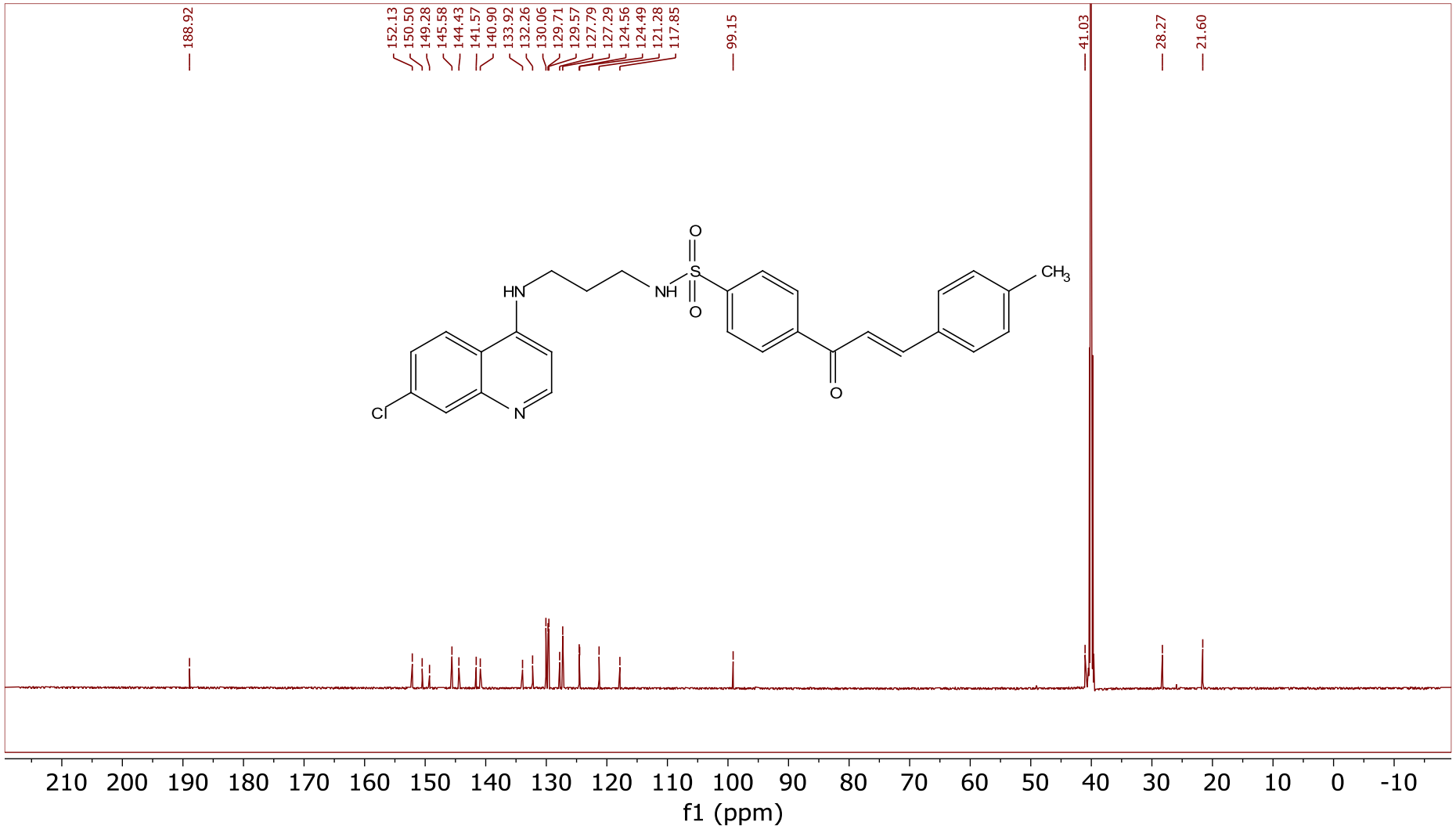
S9: ^{1}H NMR spectrum of *N*-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-cinnamoylbenzenesulfonamide **6**



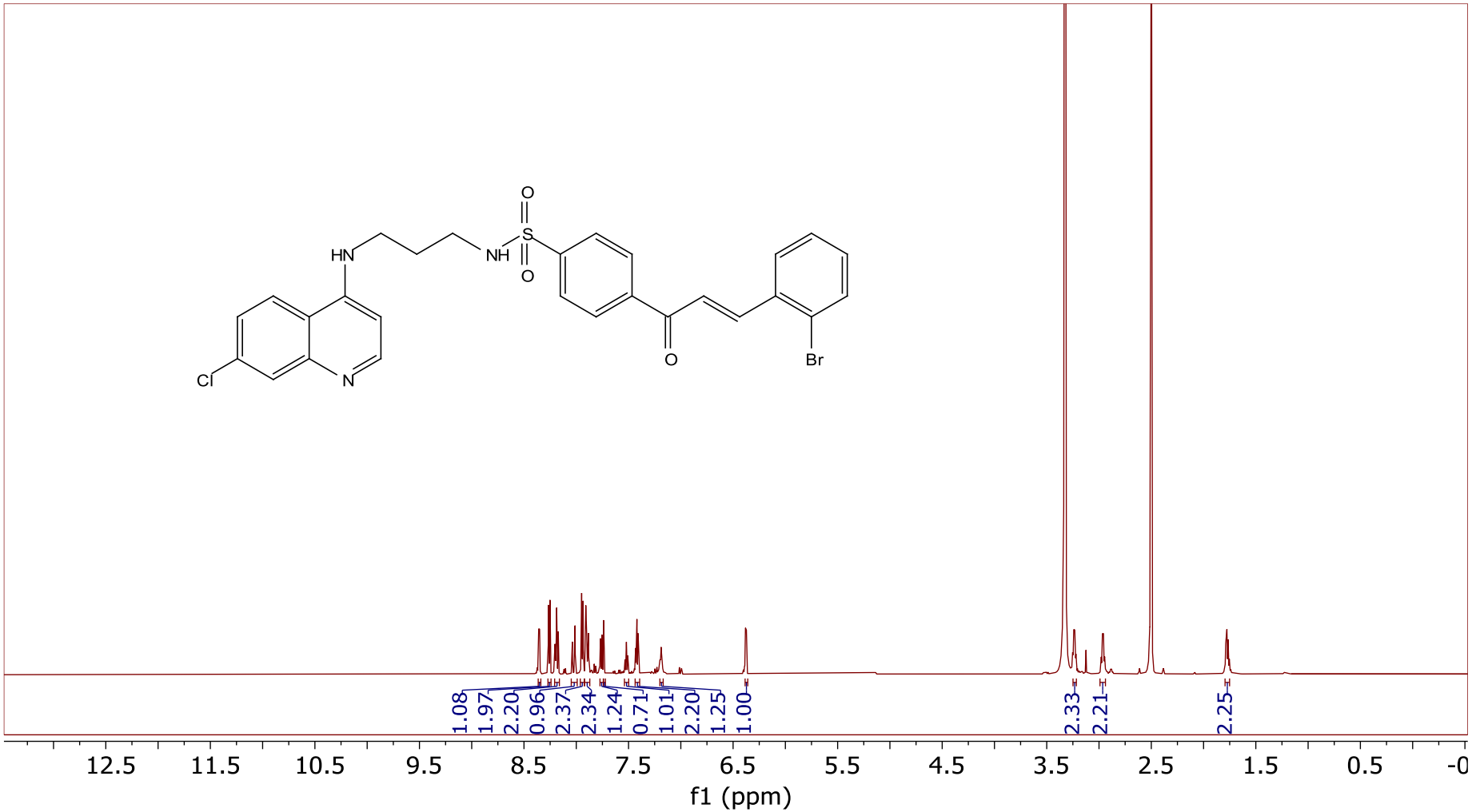
S10: ^{13}C NMR spectrum of N-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-cinnamoylbenzenesulfonamide **6**



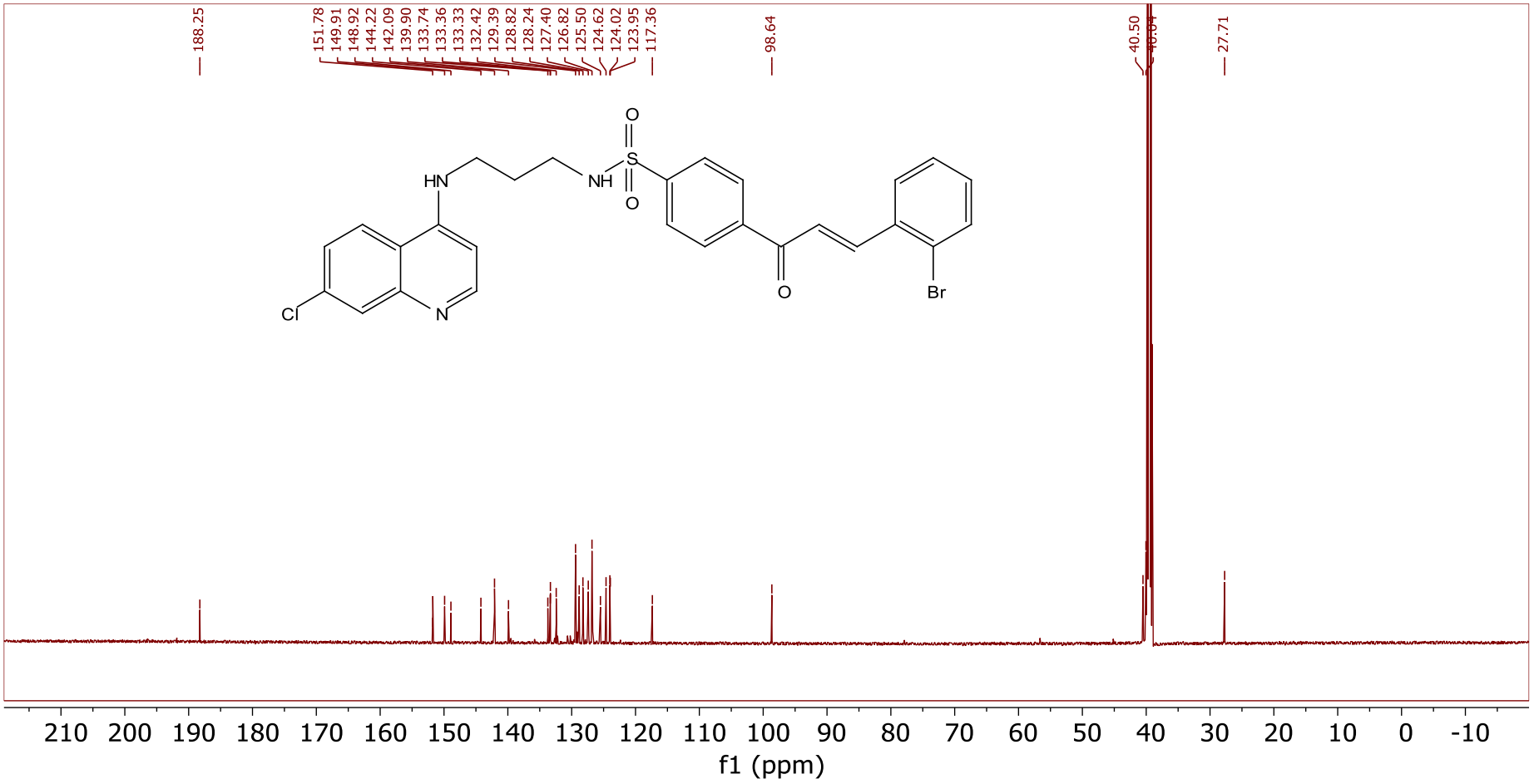
S11: ^{1}H NMR spectrum of (*E*)-*N*-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(p-tolyl)acryloyl)benzenesulfonamide **7**



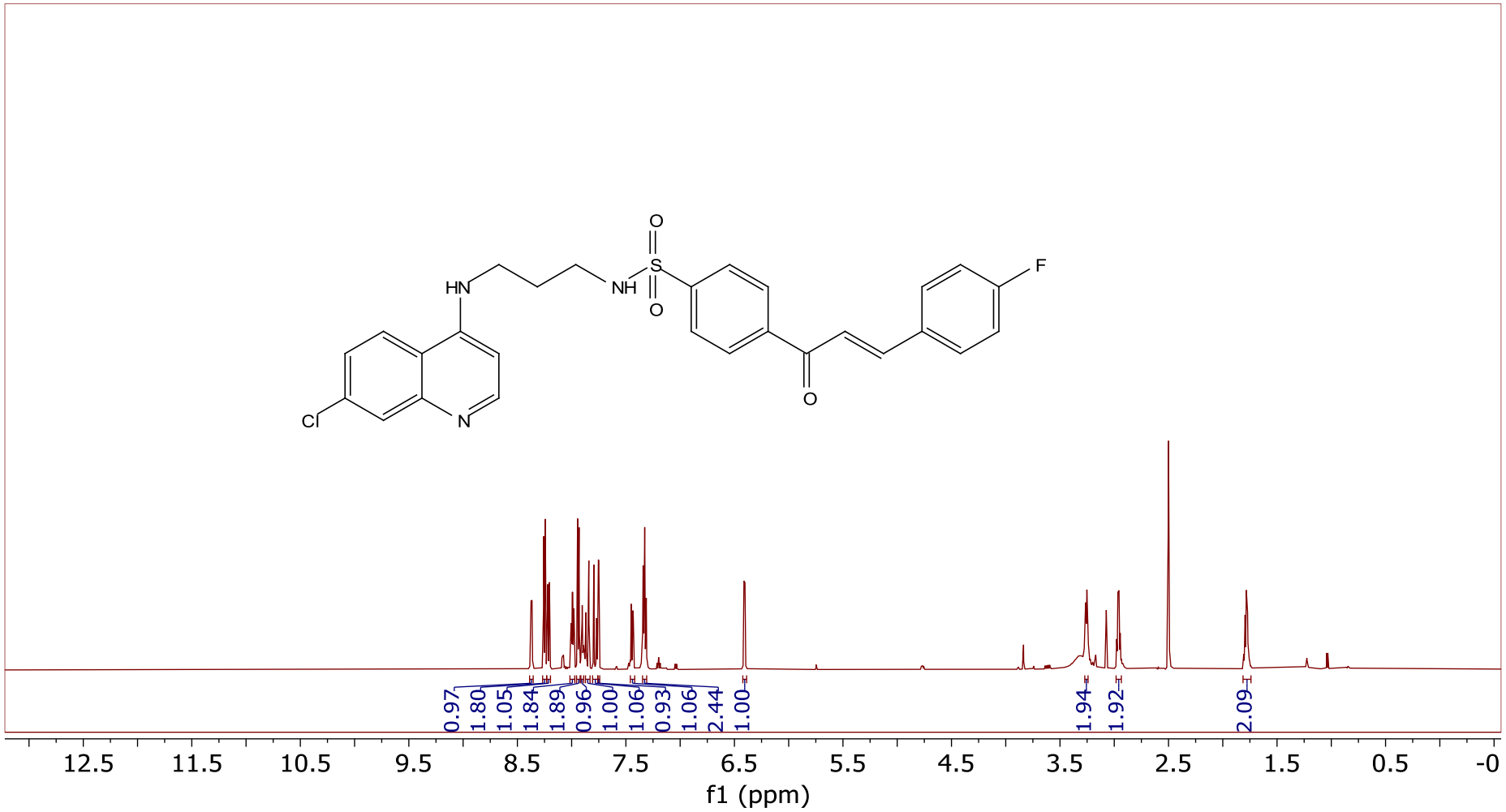
S12: ^{13}C NMR spectrum of (E)-N-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(p-tolyl)acryloyl)benzenesulfonamide **7**



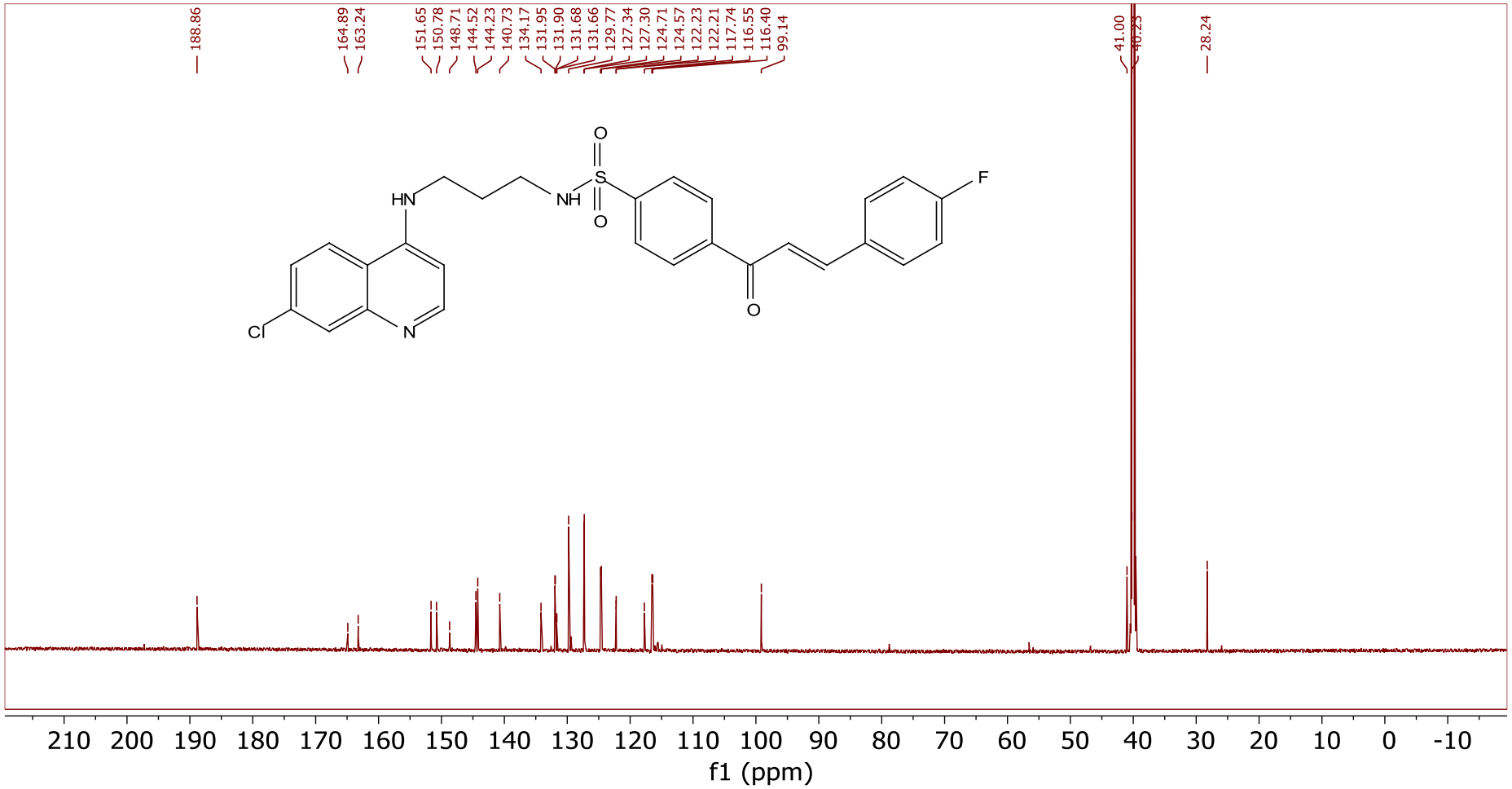
S13: ^{1}H NMR (*E*)-4-(3-(2-Bromophenyl)acryloyl)-*N*-(3-((7-chloroquinolin-4-yl)amino)propyl)benzenesulfonamide **8**



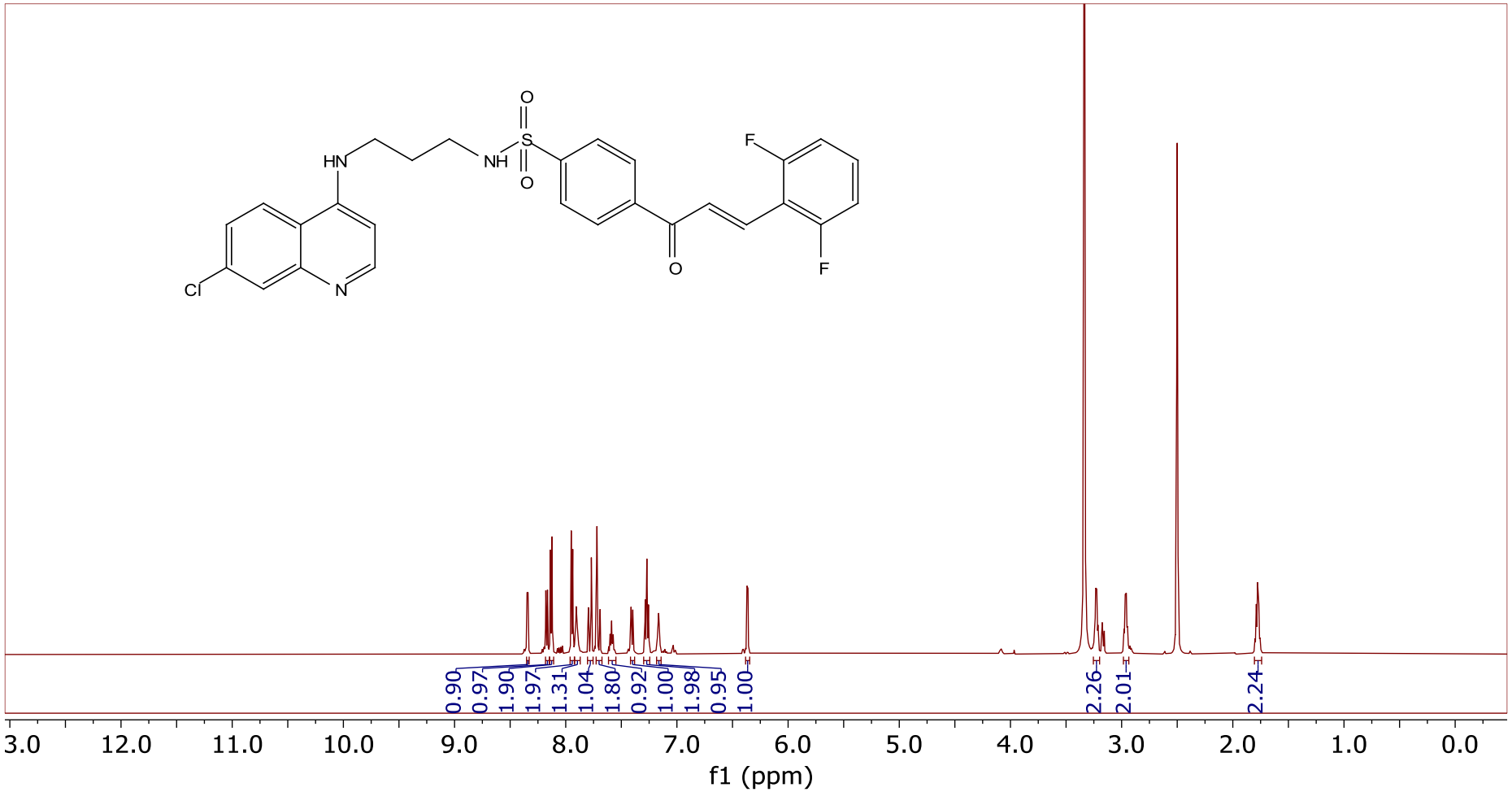
S14: ^{13}C NMR (*E*)-4-(3-(2-Bromophenyl)acryloyl)-*N*-(3-((7-chloroquinolin-4-yl)amino)propyl)benzenesulfonamide **8**



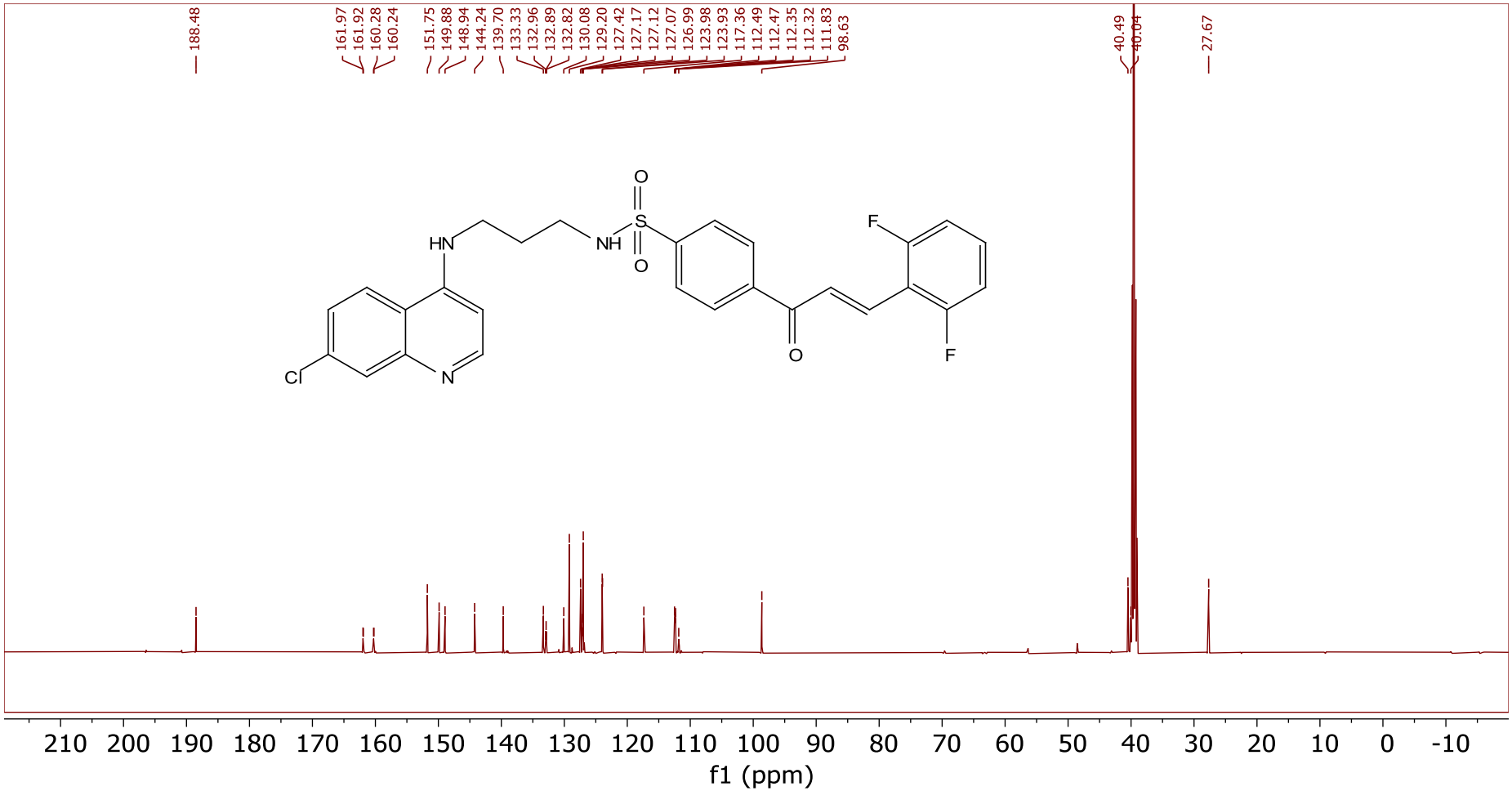
S15: ^{1}H NMR spectrum of (*E*)-*N*-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(4-fluorophenyl)acryloyl)benzenesulfonamide **9**



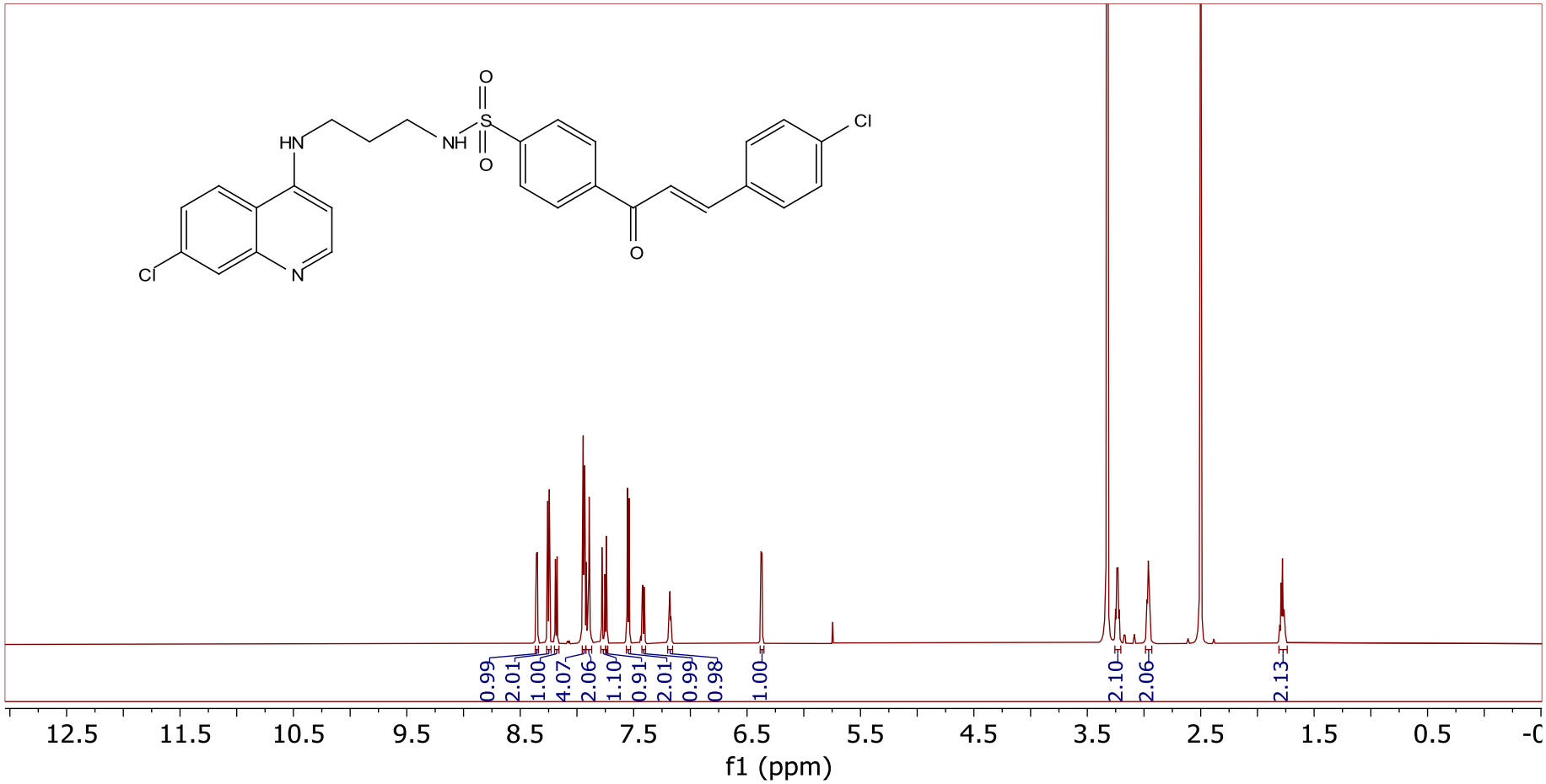
S16: ^{13}C NMR spectrum of (*E*)-*N*-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(4-fluorophenyl)acryloyl)benzenesulfonamide **9**



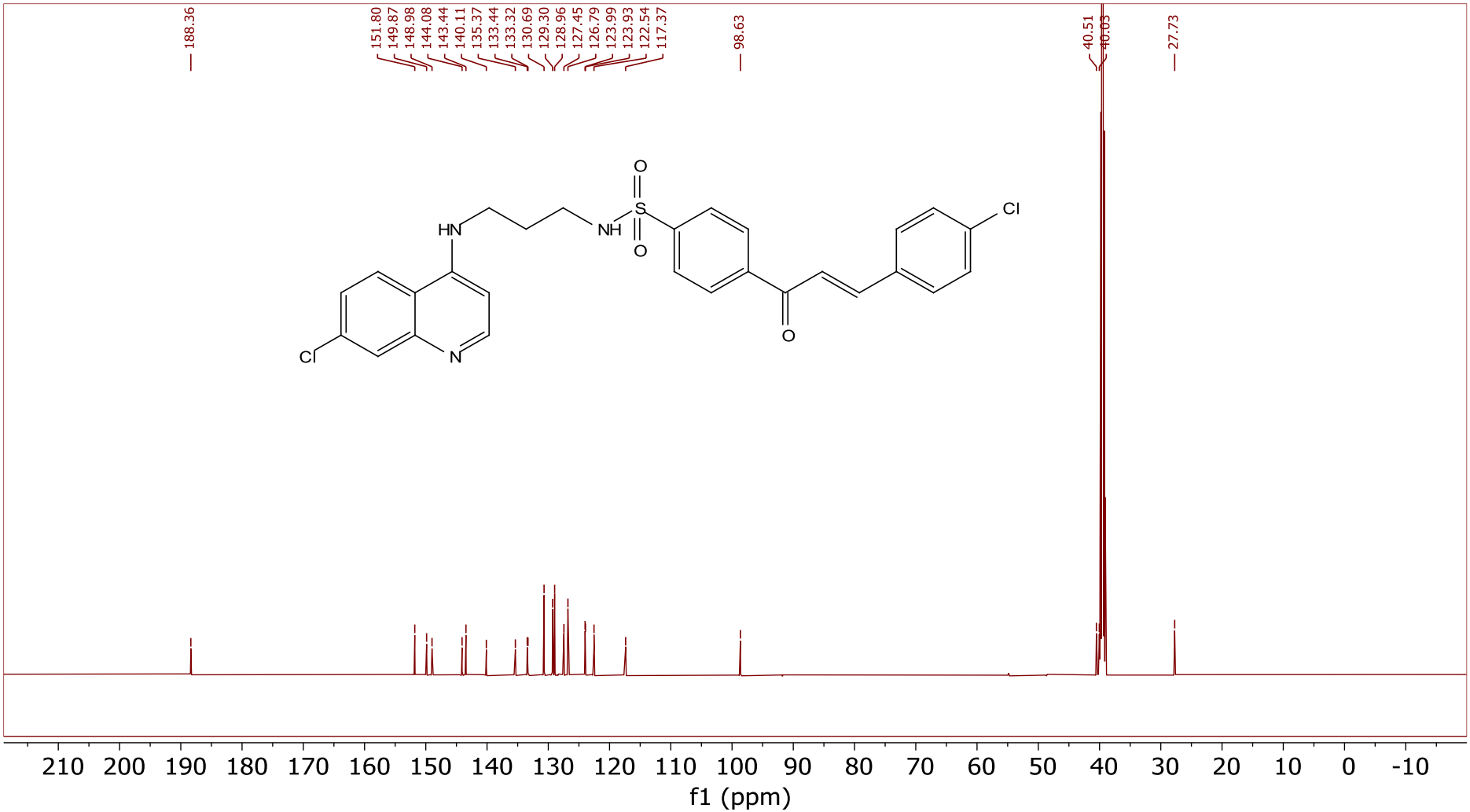
S17: ^{1}H NMR spectrum of (E)-N-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(2,6-difluorophenyl)acryloyl)benzenesulfonamide **10**



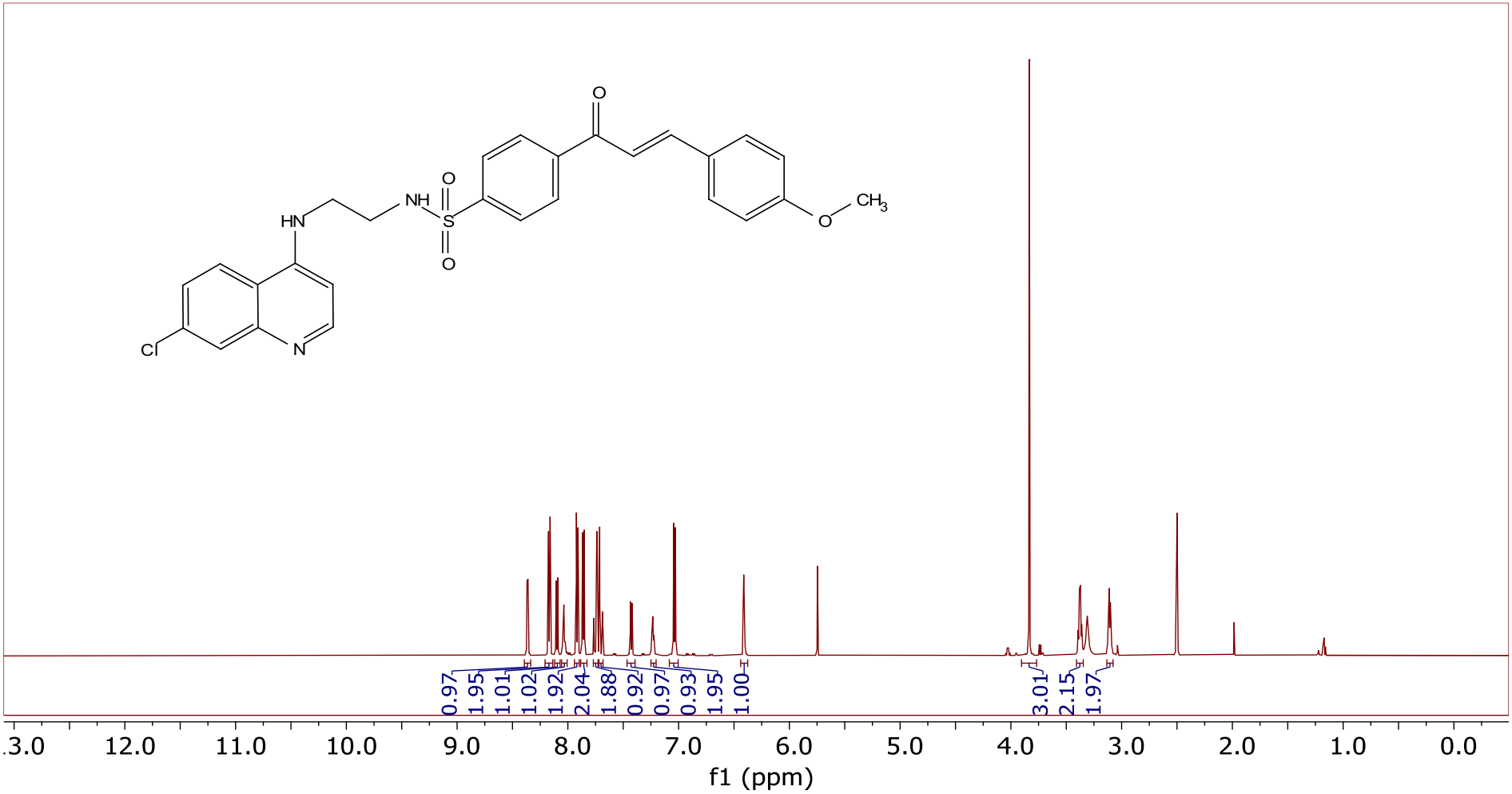
S18: ^{13}C NMR spectrum of (E)-N-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(2,6-difluorophenyl)acryloyl)benzenesulfonamide **10**



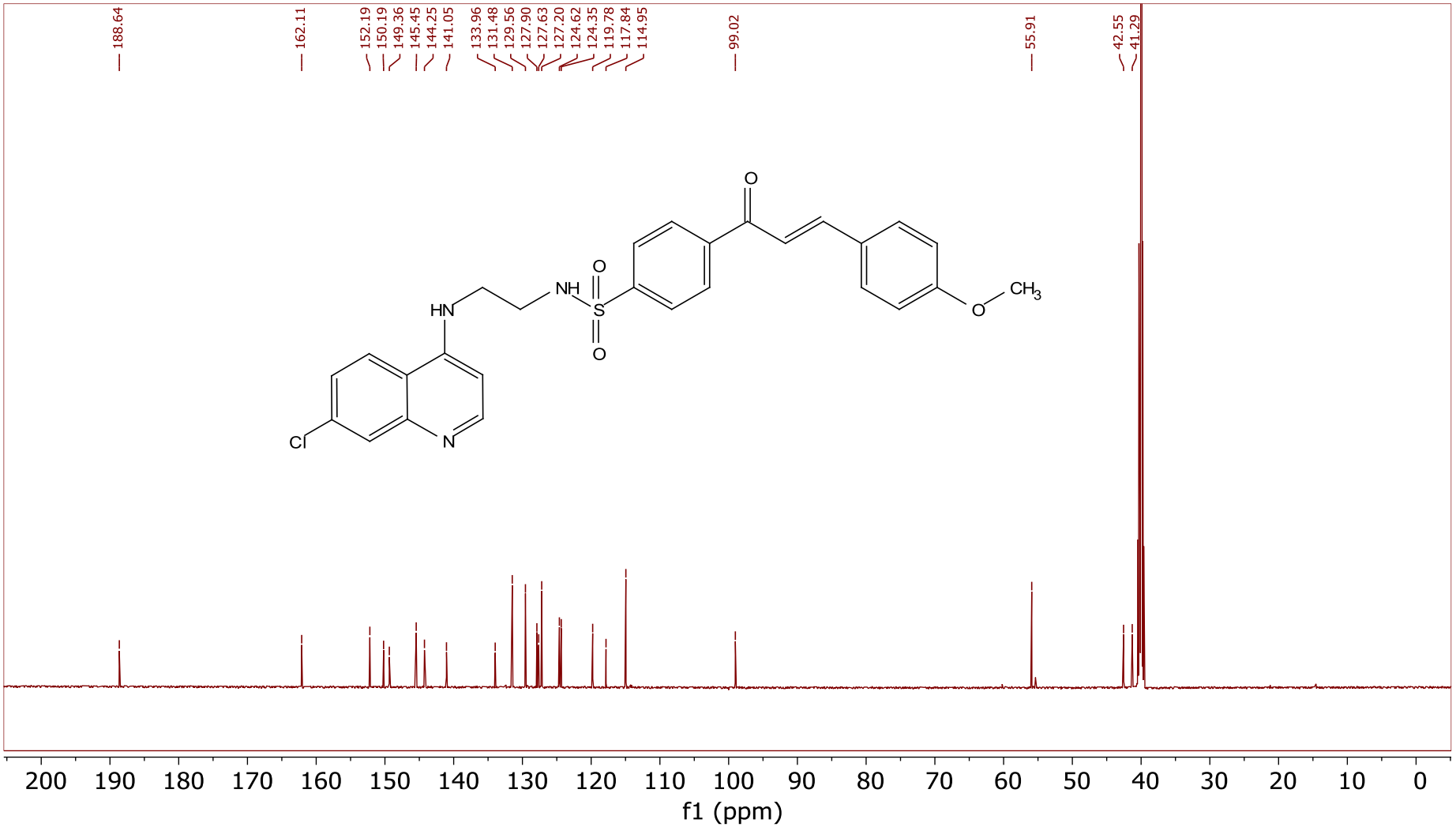
S19: ^{1}H NMR spectrum of (*E*)-4-(3-(4-Chlorophenyl)acryloyl)-*N*-(3-((7-chloroquinolin-4-yl)amino)propyl)benzenesulfonamide **11**



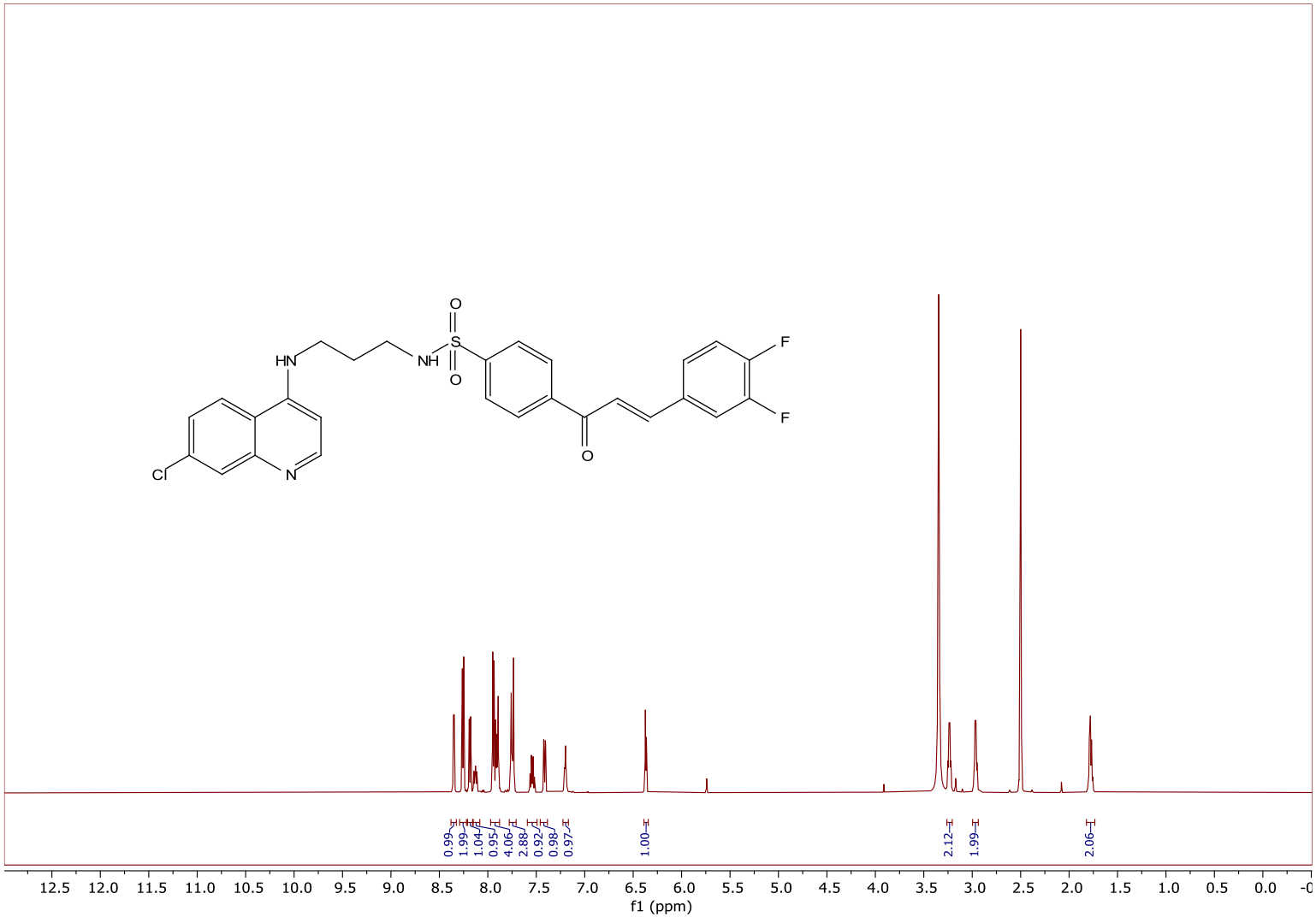
S20: ^{13}C NMR spectrum of (E)-4-(3-(4-Chlorophenyl)acryloyl)-N-(3-((7-chloroquinolin-4-yl)amino)propyl)benzenesulfonamide **11**



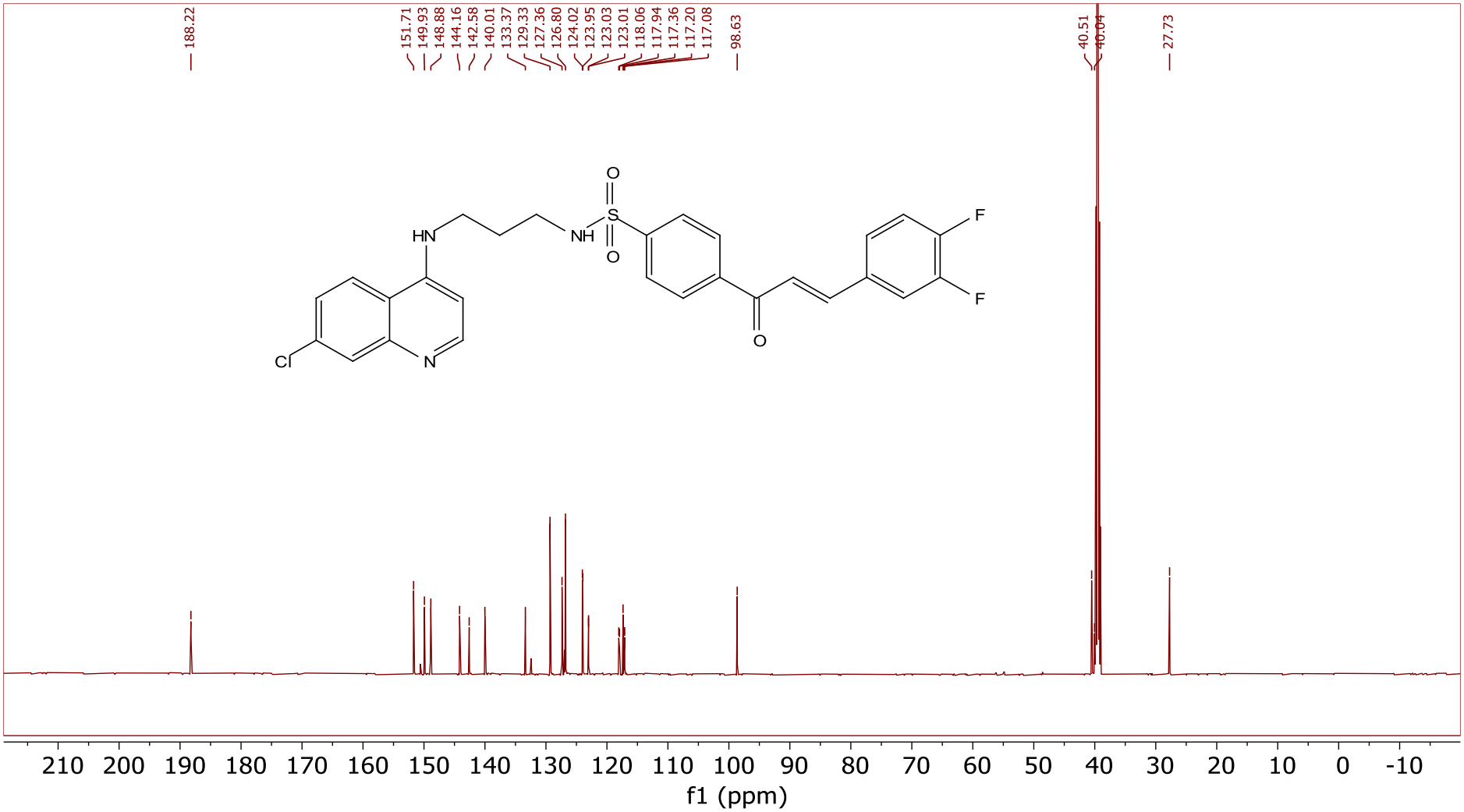
S21: ^{1}H NMR spectrum of (*E*)-*N*-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(4-methoxyphenyl)acryloyl)benzenesulfonamide **12**



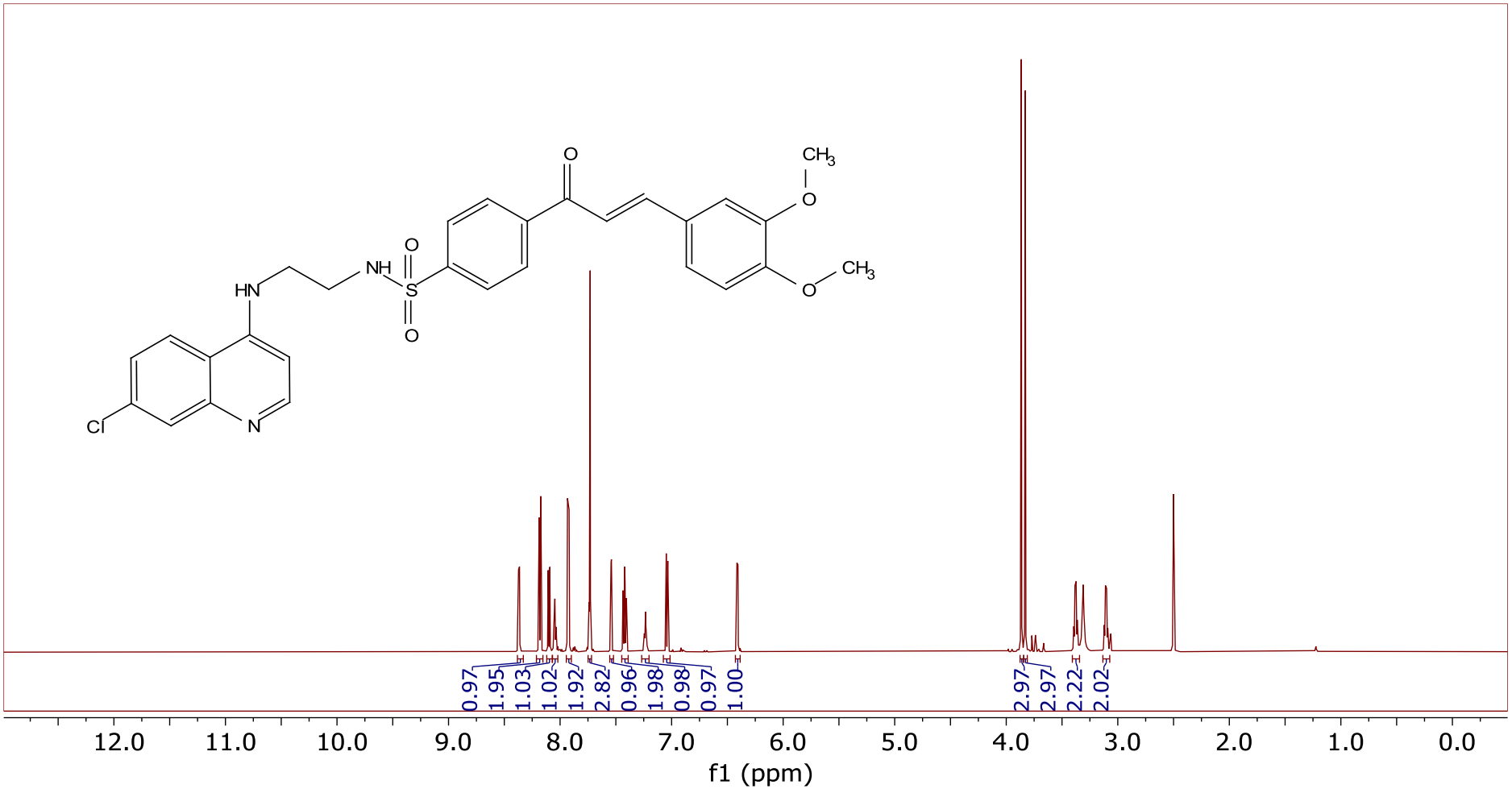
S22: ^{13}C NMR spectrum of (*E*)-*N*-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(4-methoxyphenyl)acryloyl)benzenesulfonamide **12**



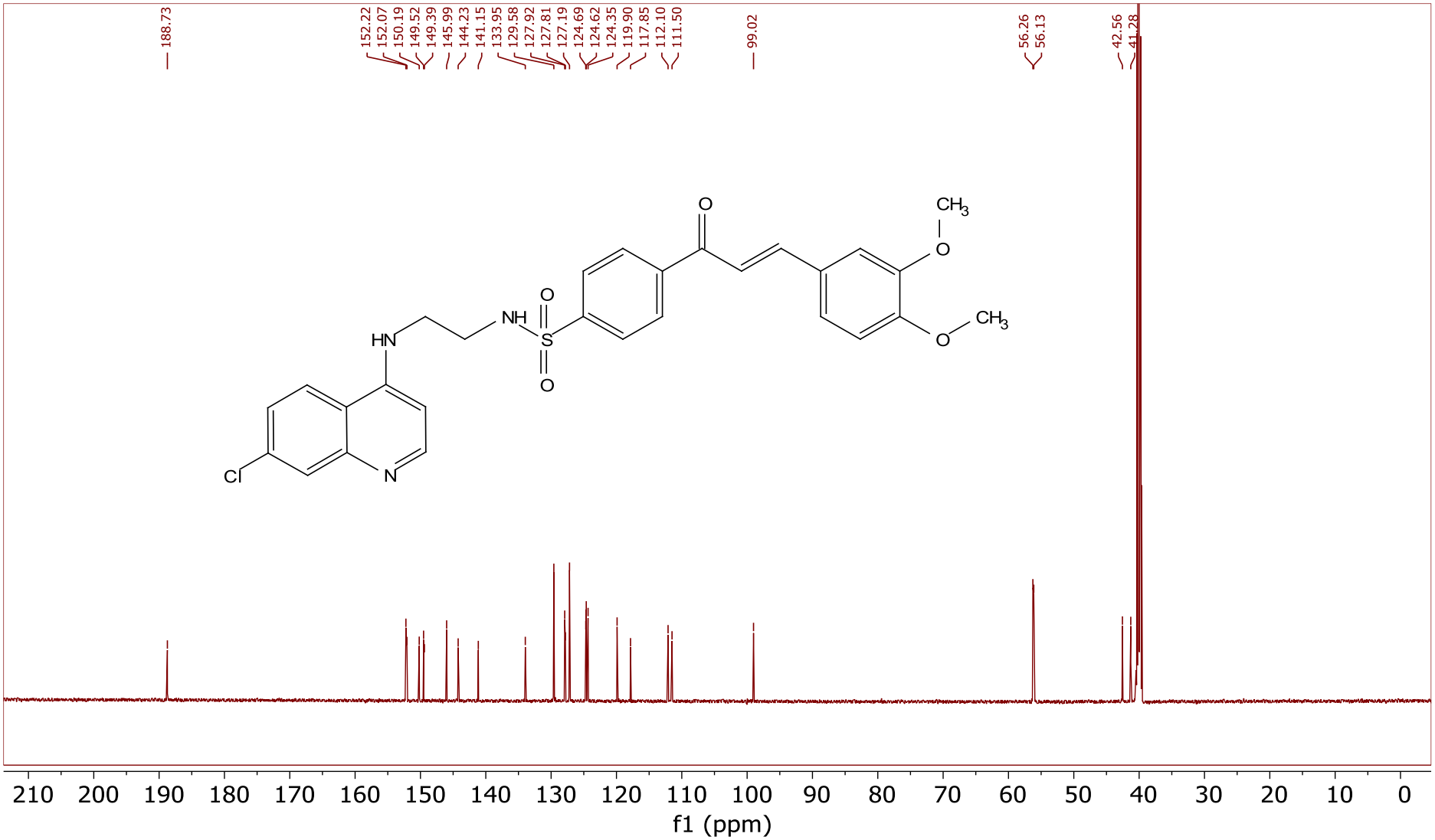
S23: ^{1}H NMR spectrum of (*E*)-*N*-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(3,4-difluorophenyl)acryloyl)benzenesulfonamide **13**



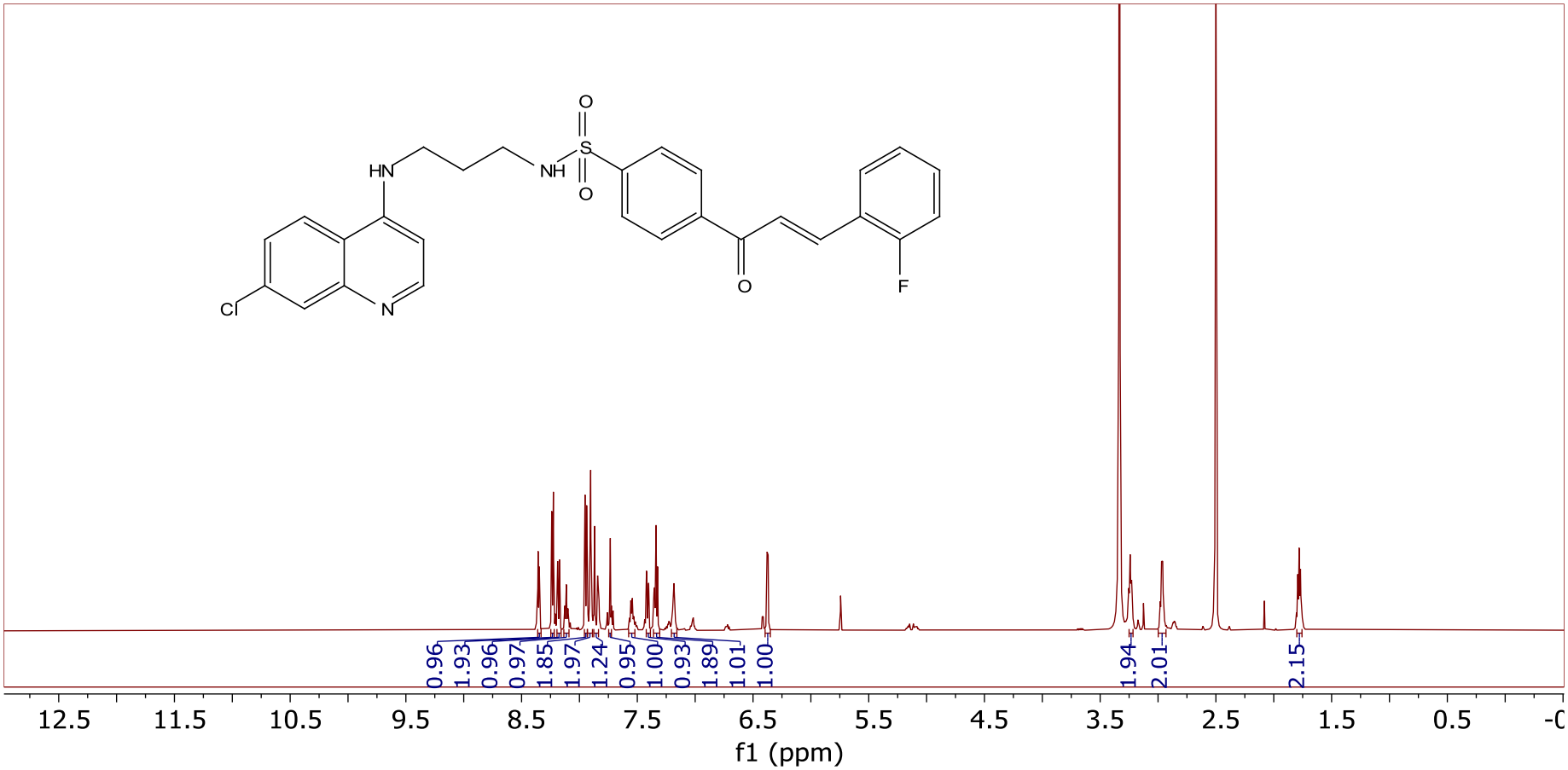
S24: ^{13}C NMR spectrum of (*E*)-*N*-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(3,4-difluorophenyl)acryloyl)benzenesulfonamide **13**



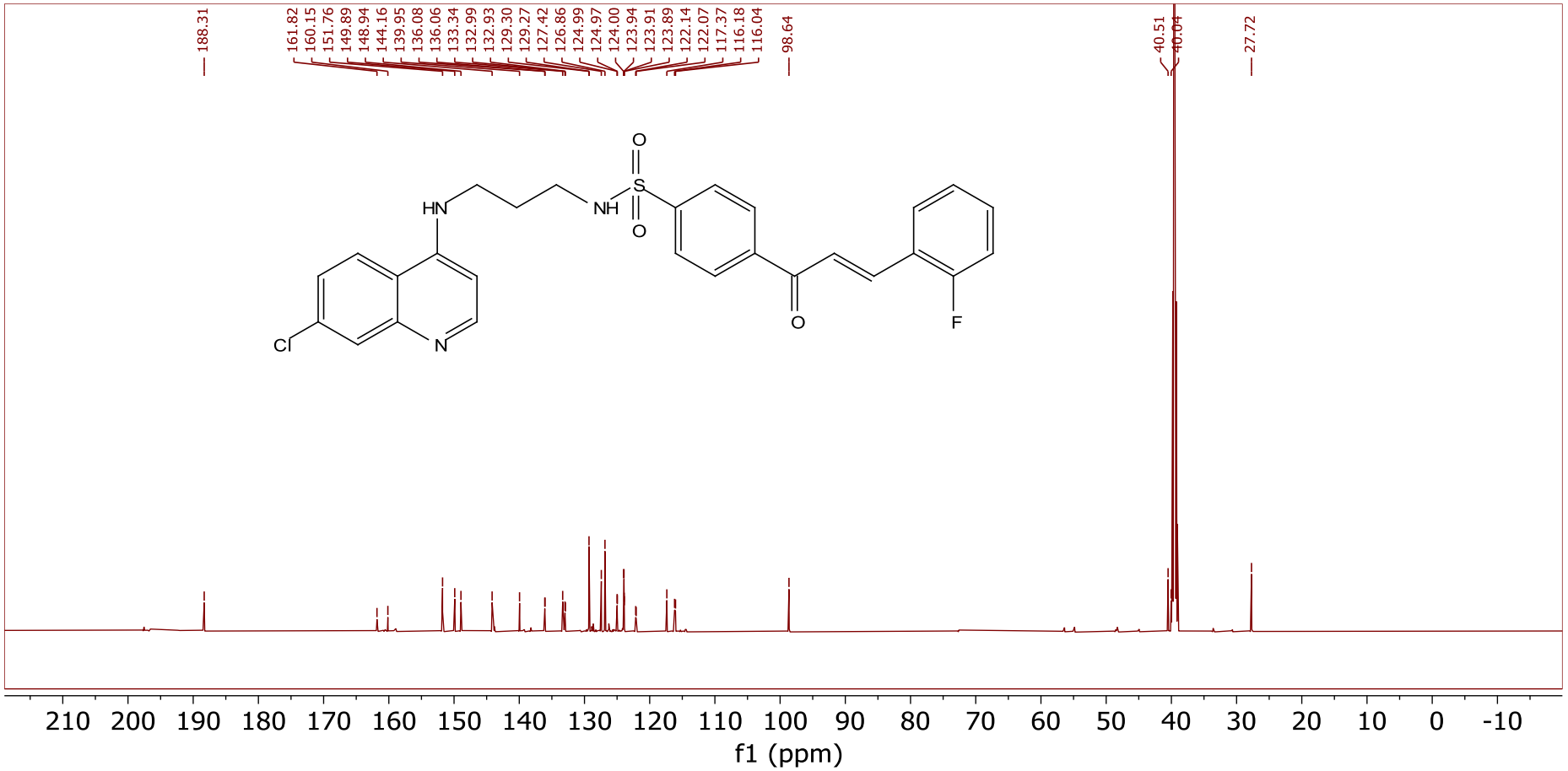
S25: ^{1}H NMR spectrum of (E)-N-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(3,4-dimethoxyphenyl)acryloyl)benzenesulfonamide **14**



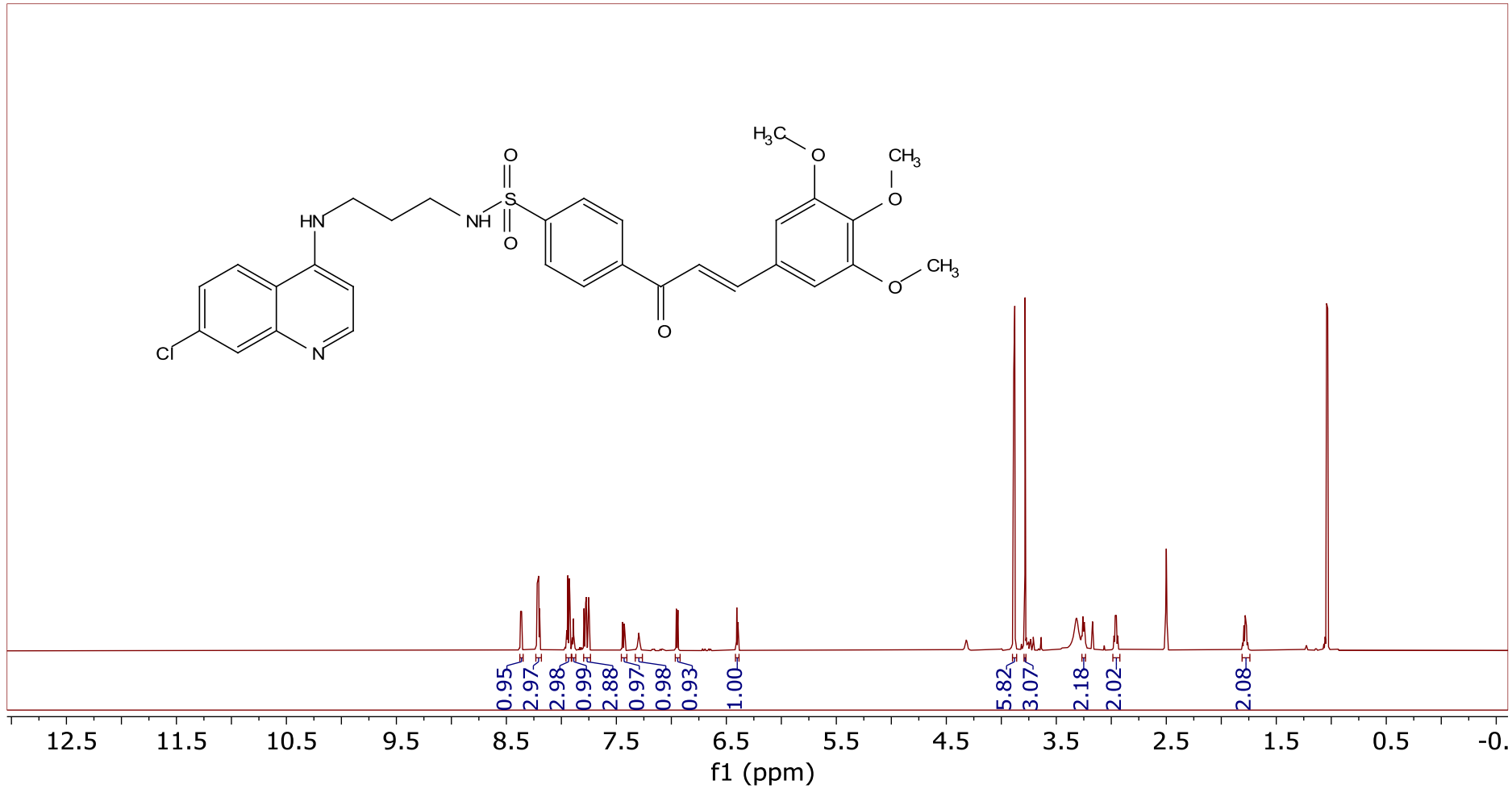
S26: ^{13}C NMR spectrum of (E)-N-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(3,4-dimethoxyphenyl)acryloyl)benzenesulfonamide **14**



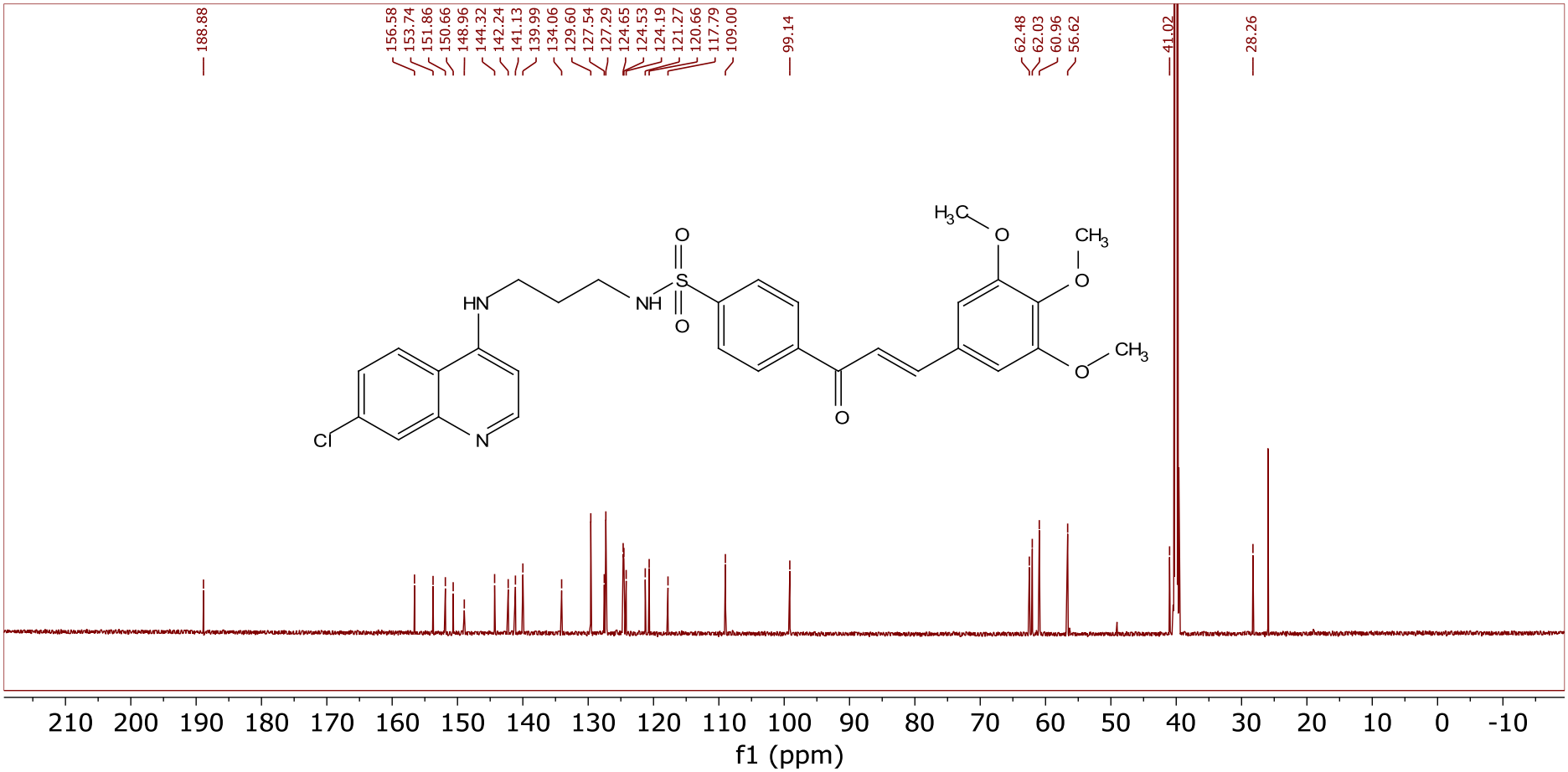
S27: ^{1}H NMR of (E)-N-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(2-fluorophenyl)acryloyl)benzenesulfonamide **15**



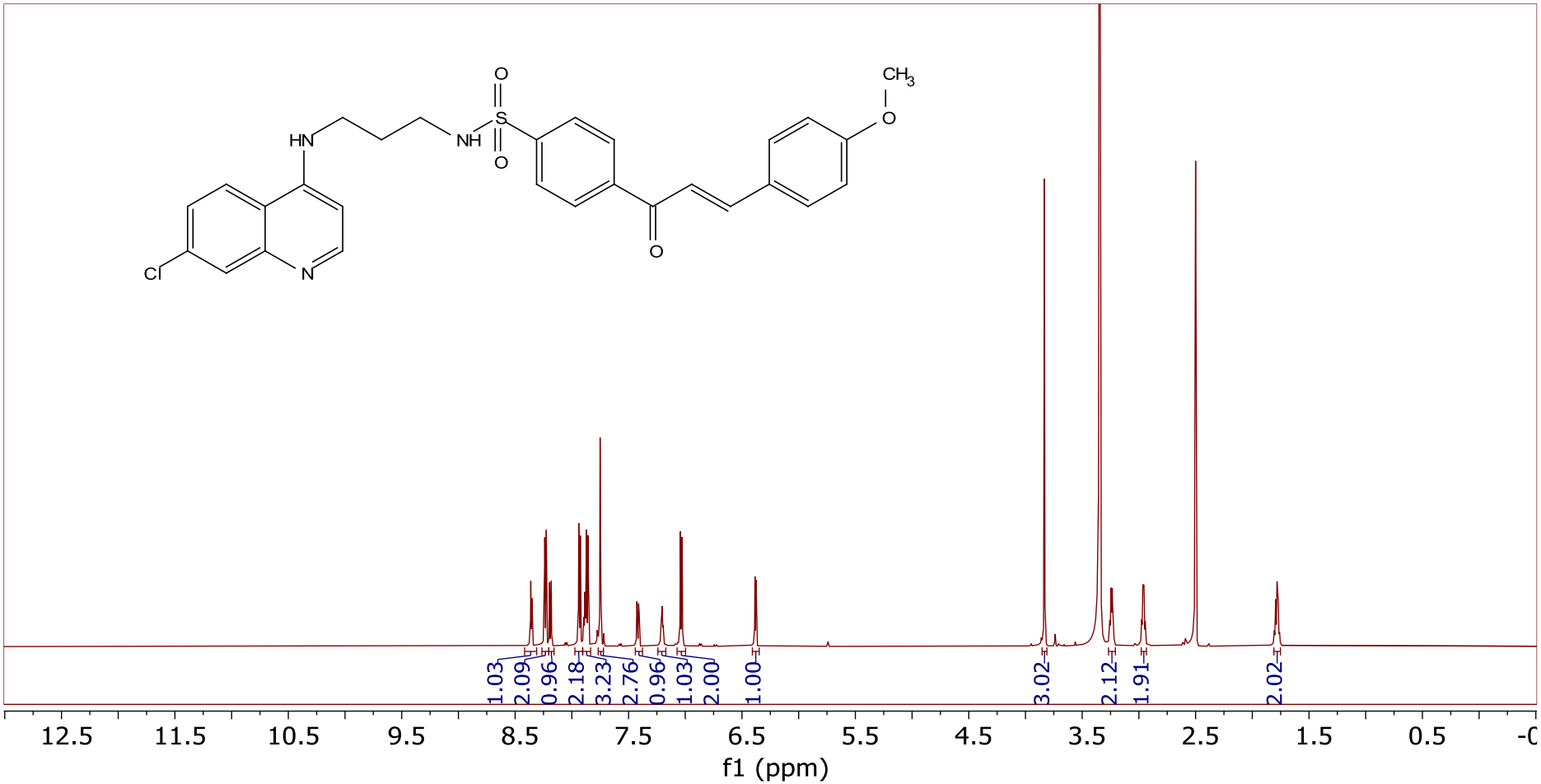
S28: ^{13}C NMR of (E)-N-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(2-fluorophenyl)acryloyl)benzenesulfonamide **15**



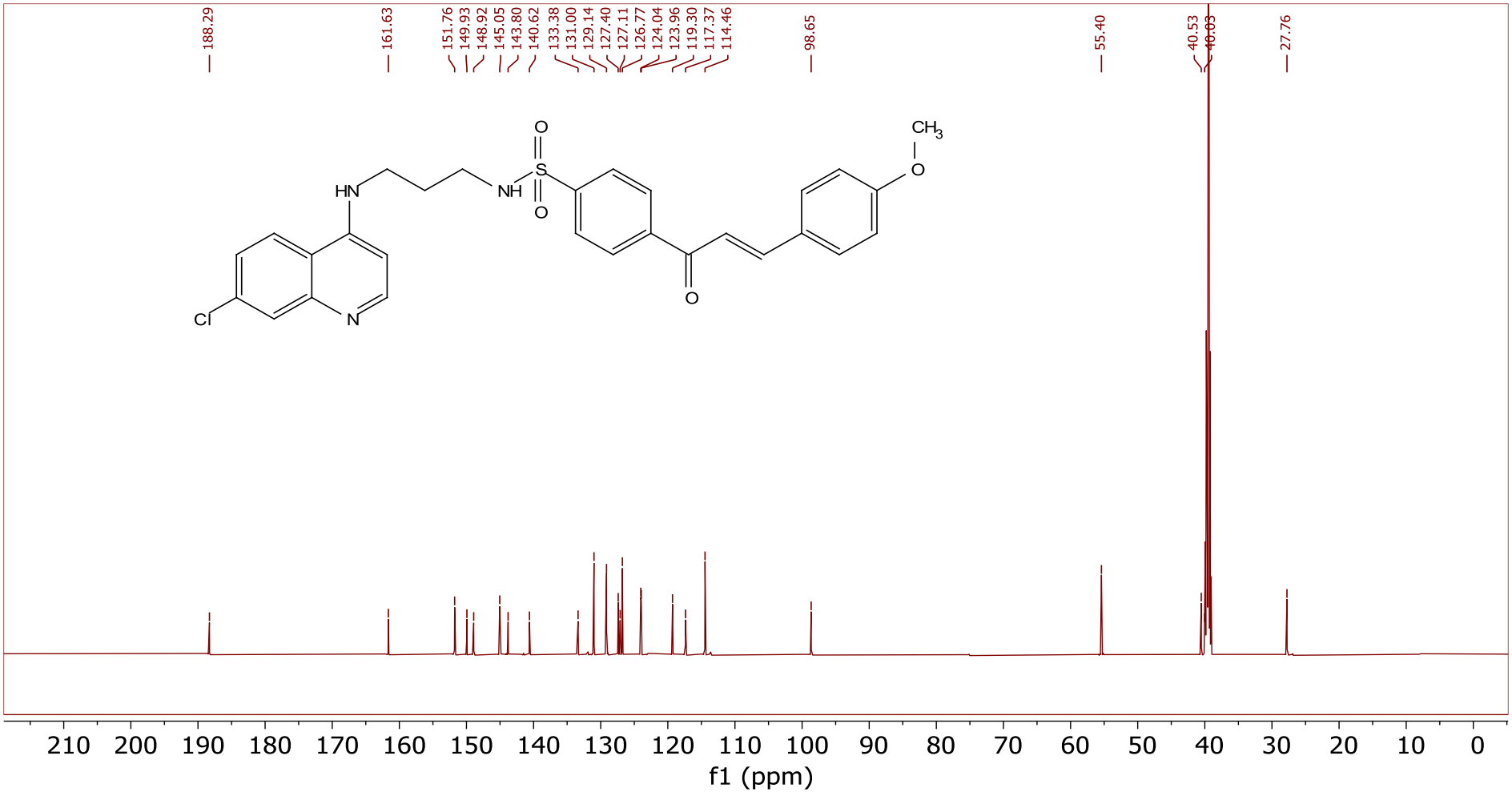
S29: ^{1}H NMR spectrum of (E)-N-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(3,4,5-trimethoxyphenyl)acryloyl)benzenesulfonamide **16**



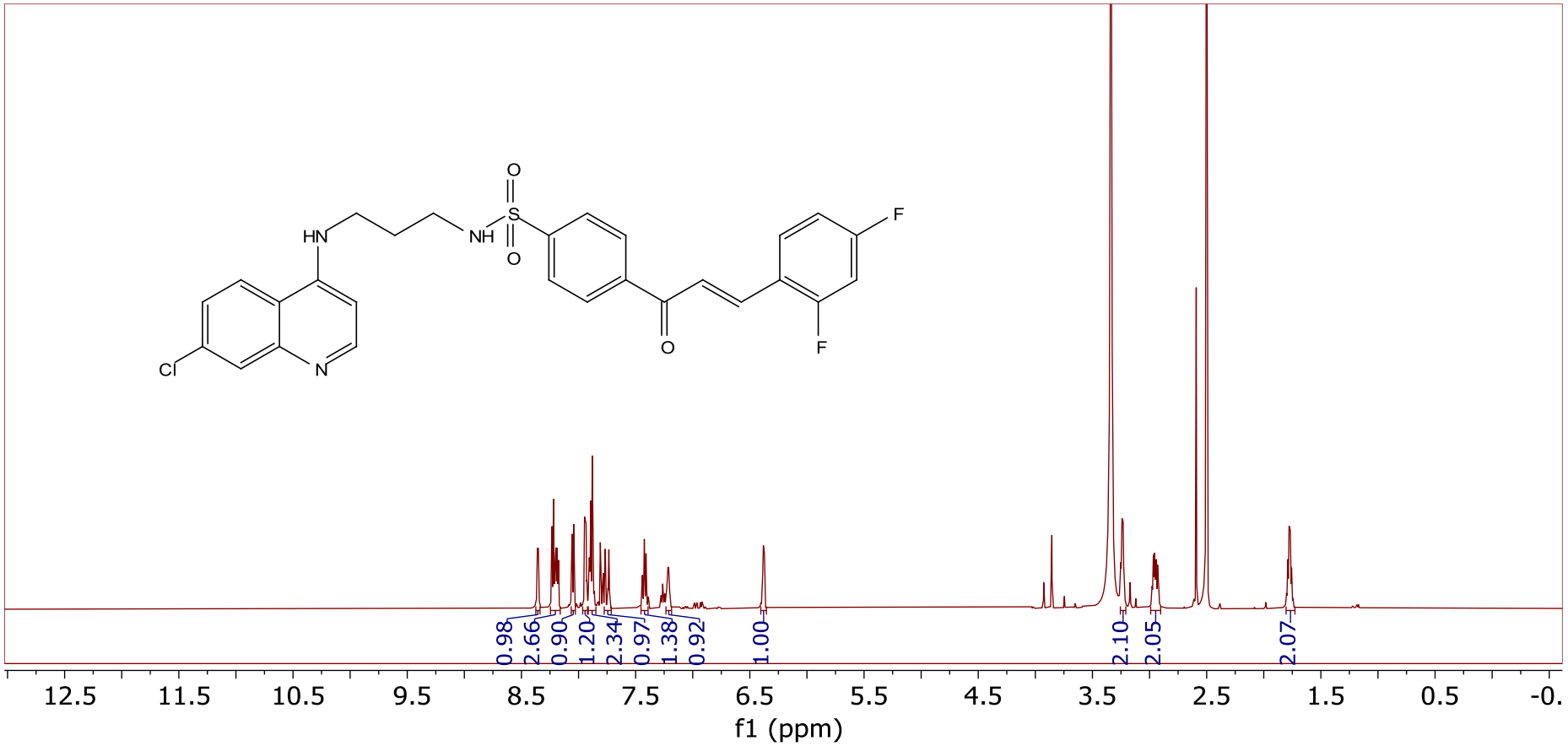
S30: ^{13}C NMR spectrum of (E)-N-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(3,4,5-trimethoxyphenyl)acryloyl)benzenesulfonamide **16**



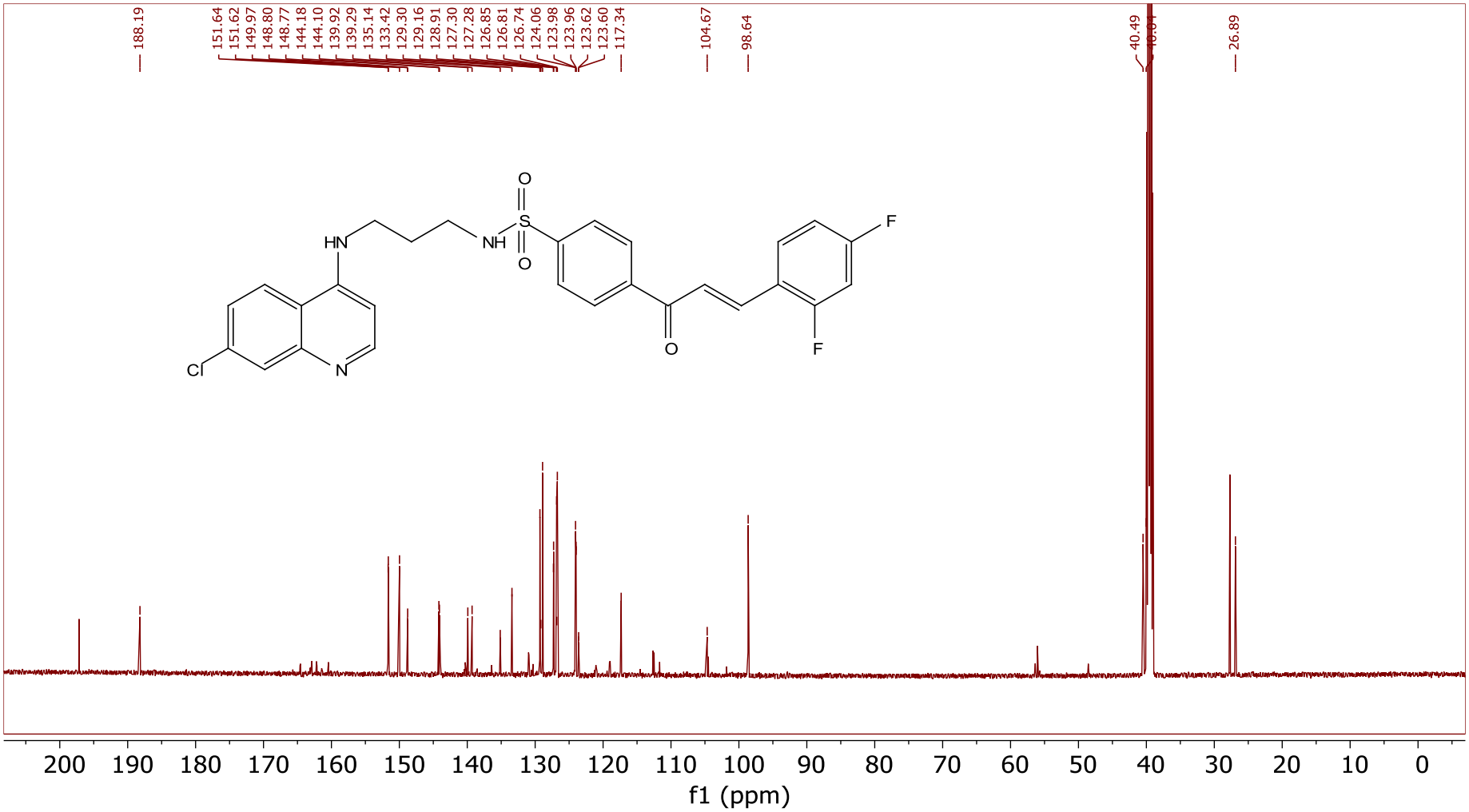
S31: ^{1}H NMR spectrum of (*E*)-*N*-(2-((7-Chloroquinolin-4-yl)amino)ethyl)-4-(3-(4-methoxyphenyl)acryloyl)benzenesulfonamide **17**



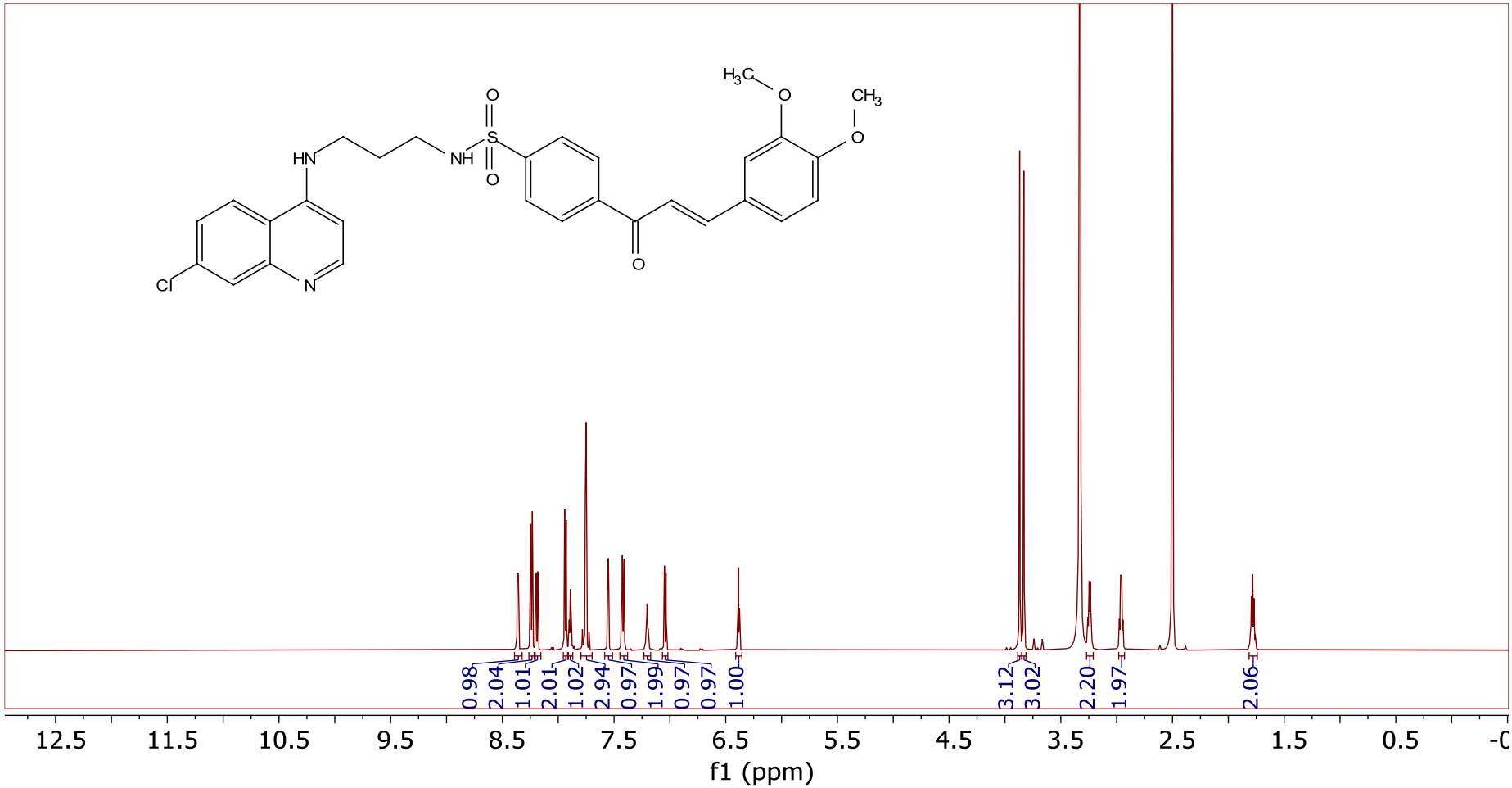
S32: ^{13}C NMR spectrum of (E)-N-(2-((7-Chloroquinolin-4-yl)amino)ethyl)-4-(3-(4-methoxyphenyl)acryloyl)benzenesulfonamide **17**



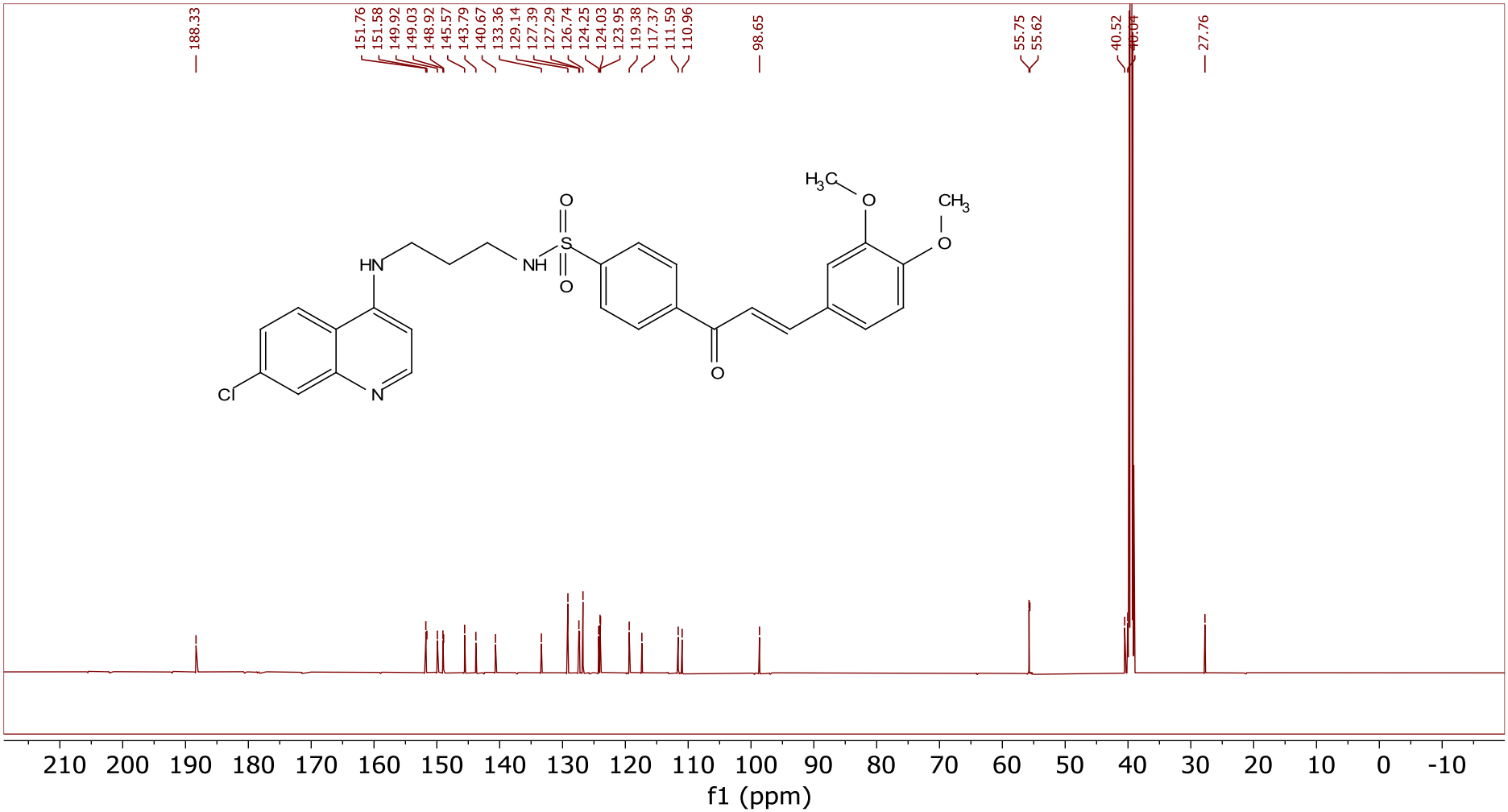
S33: ^{1}H NMR spectrum of (*E*)-*N*-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(2,4-difluorophenyl)acryloyl)benzenesulfonamide **18**



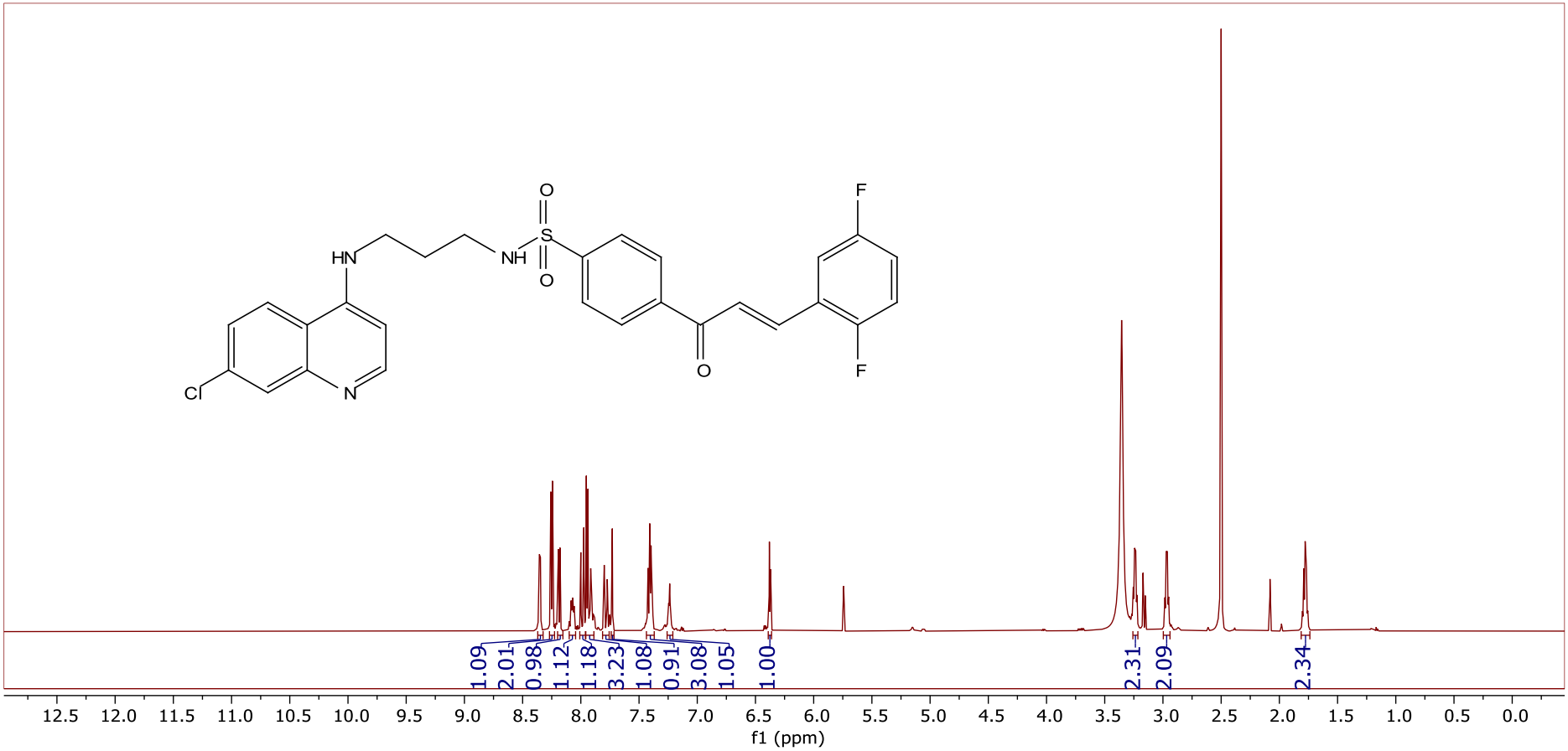
S34: ^{13}C NMR spectrum of (*E*)-*N*-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(2,4-difluorophenyl)acryloyl)benzenesulfonamide **18**



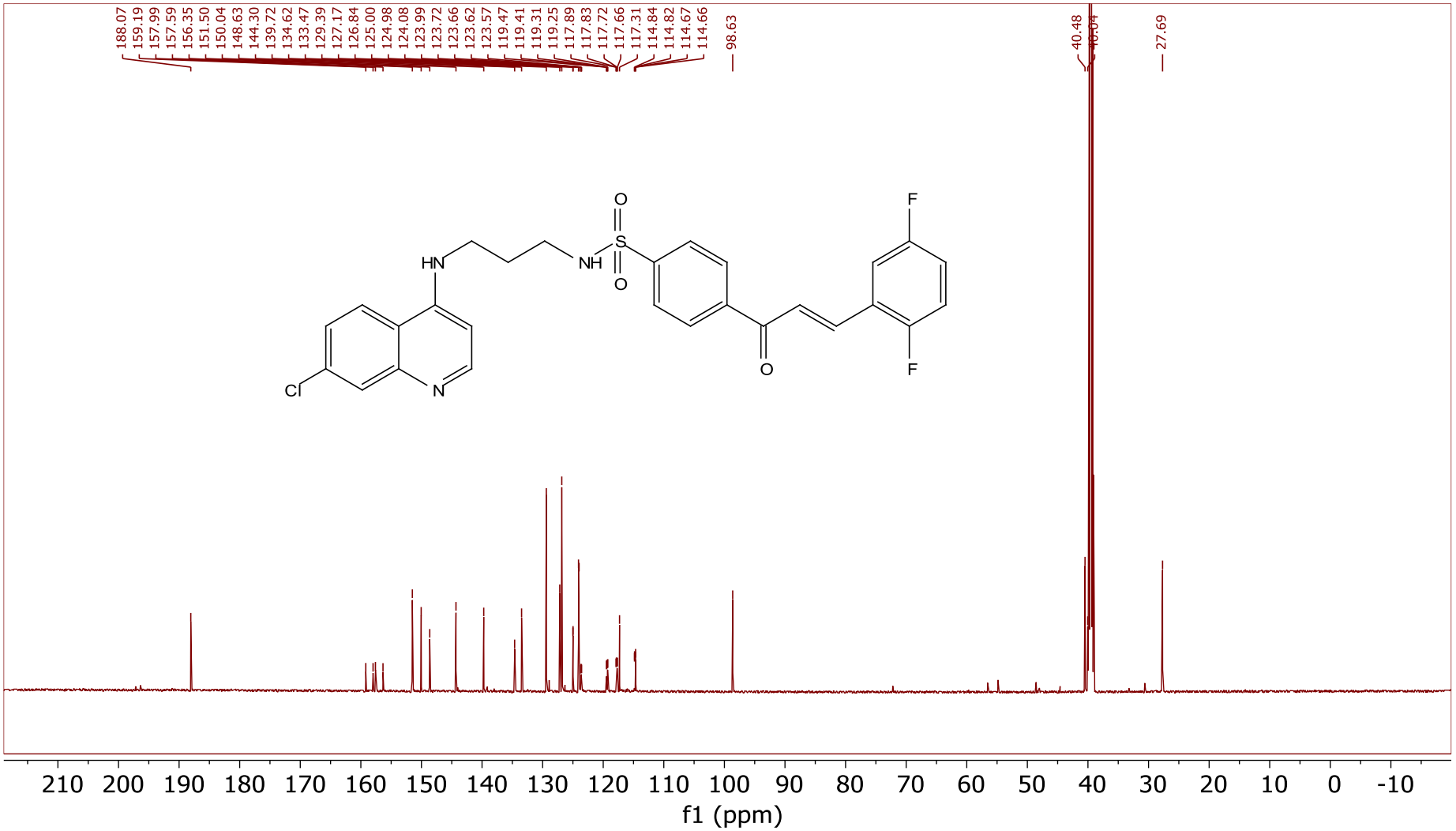
S35: ^{1}H NMR spectrum of (*E*)-*N*-(2-((7-Chloroquinolin-4-yl)amino)ethyl)-4-(3-(3,4-dimethoxyphenyl)acryloyl)benzenesulfonamide **19**



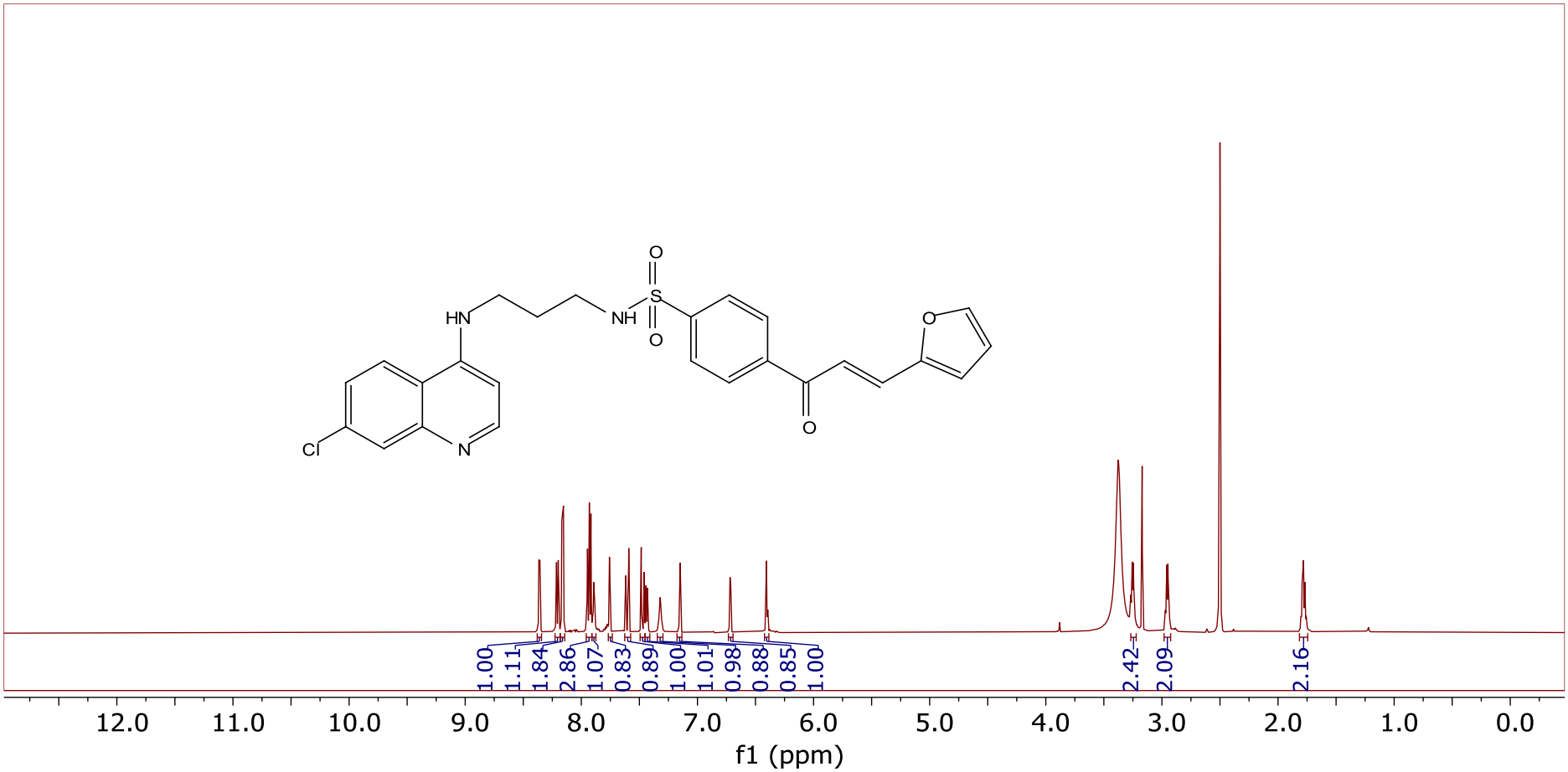
S36: ^{13}C NMR spectrum of (*E*)-*N*-(2-((7-Chloroquinolin-4-yl)amino)ethyl)-4-(3-(3,4-dimethoxyphenyl)acryloyl)benzenesulfonamide **19**



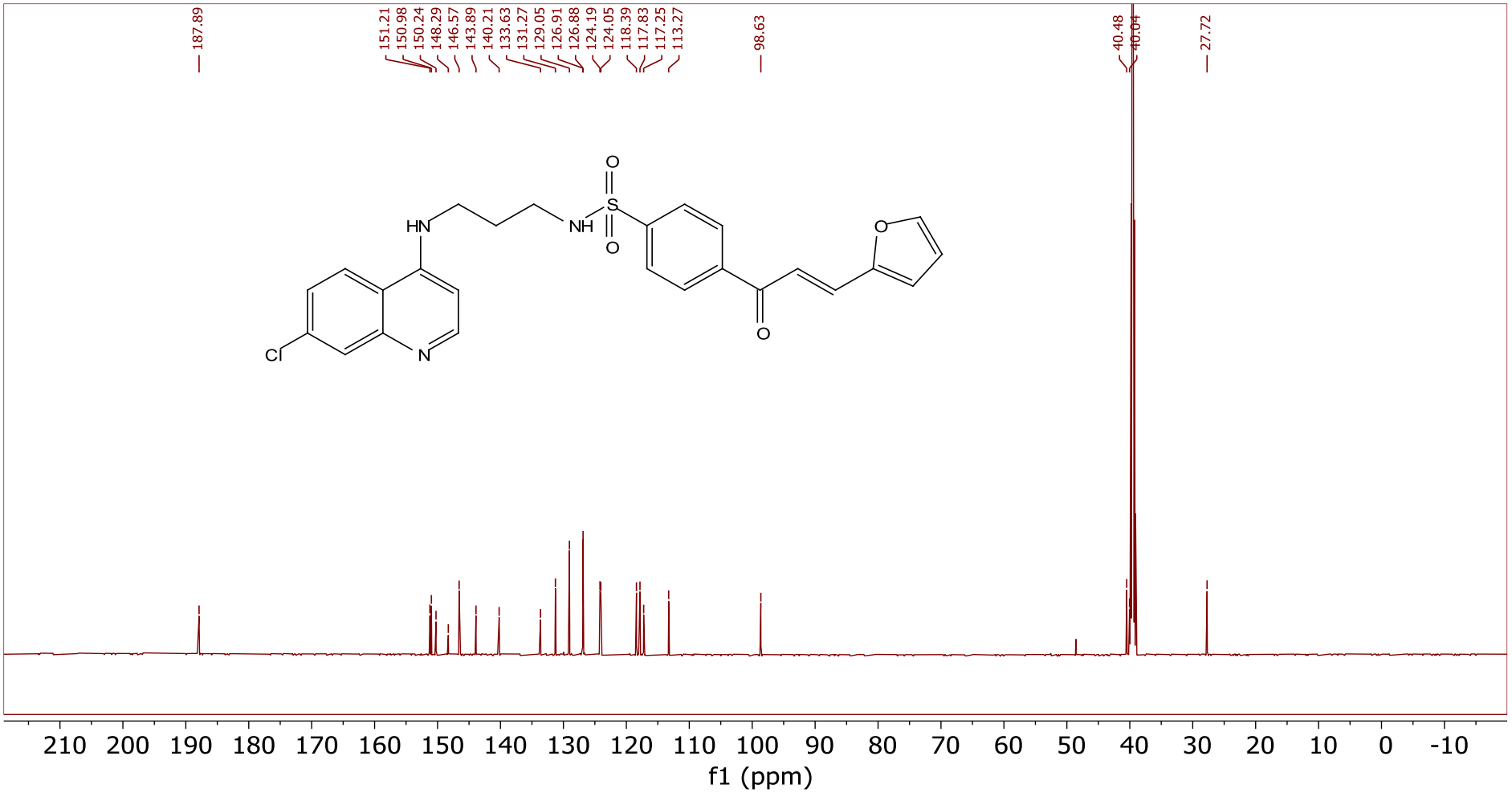
S37: ^{1}H NMR spectrum of (E)-N-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(2,5-difluorophenyl)acryloyl)benzenesulfonamide **20**



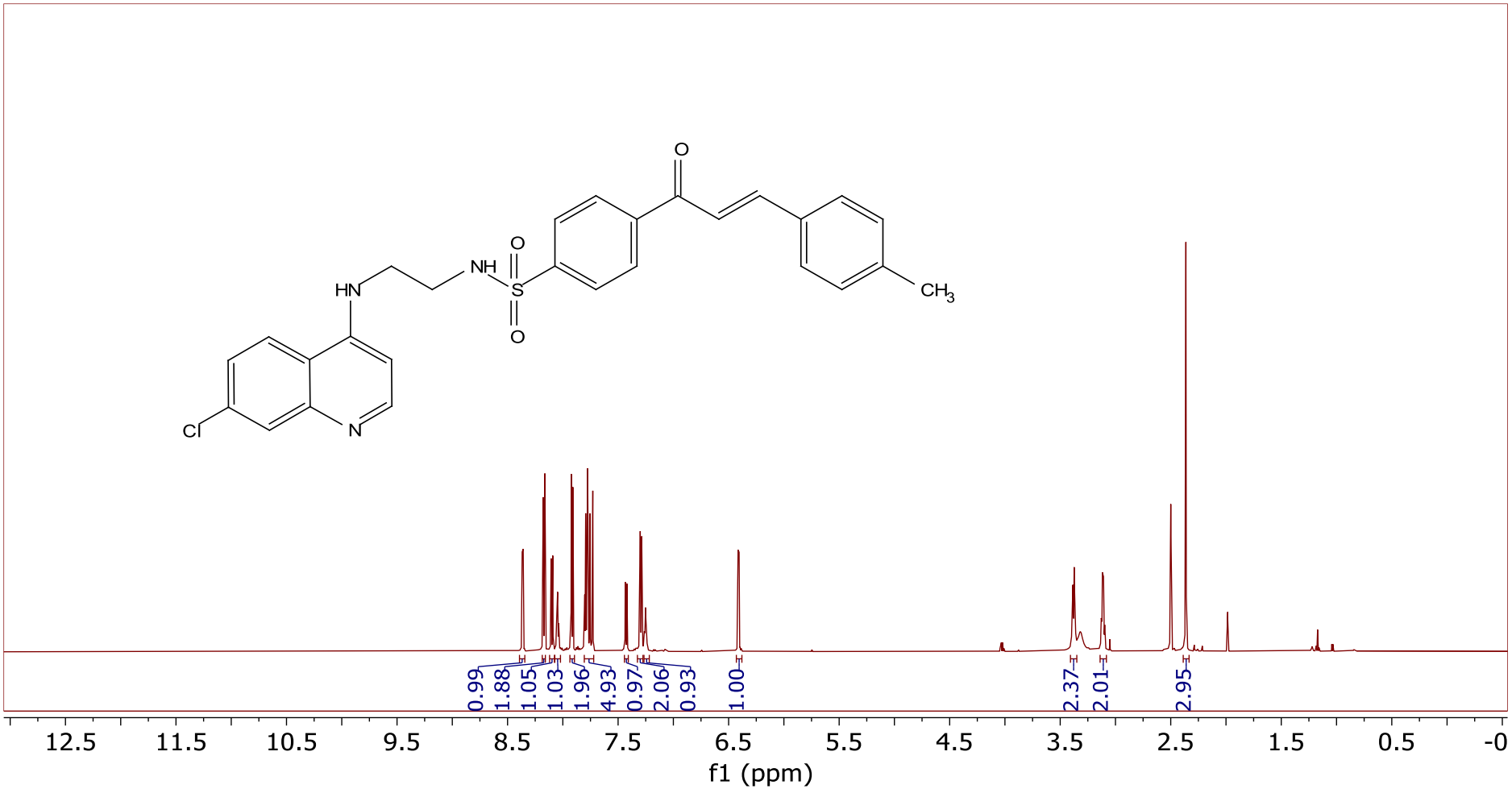
S38: ^{13}C NMR spectrum of (E)-N-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(2,5-difluorophenyl)acryloyl)benzenesulfonamide **20**



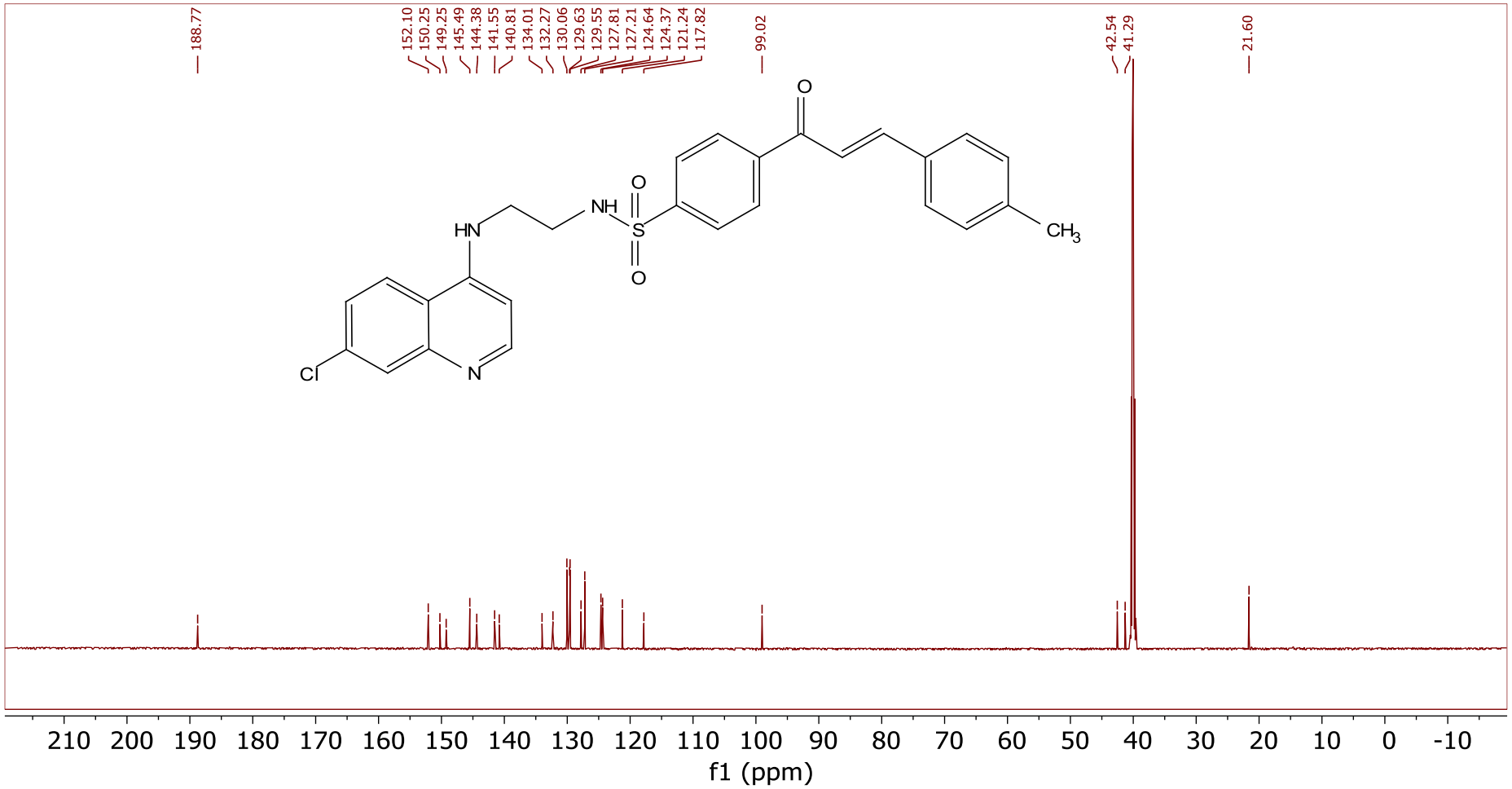
S39: ^{1}H NMR spectrum of (*E*)-*N*-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(furan-2-yl)acryloyl)benzenesulfonamide **21**



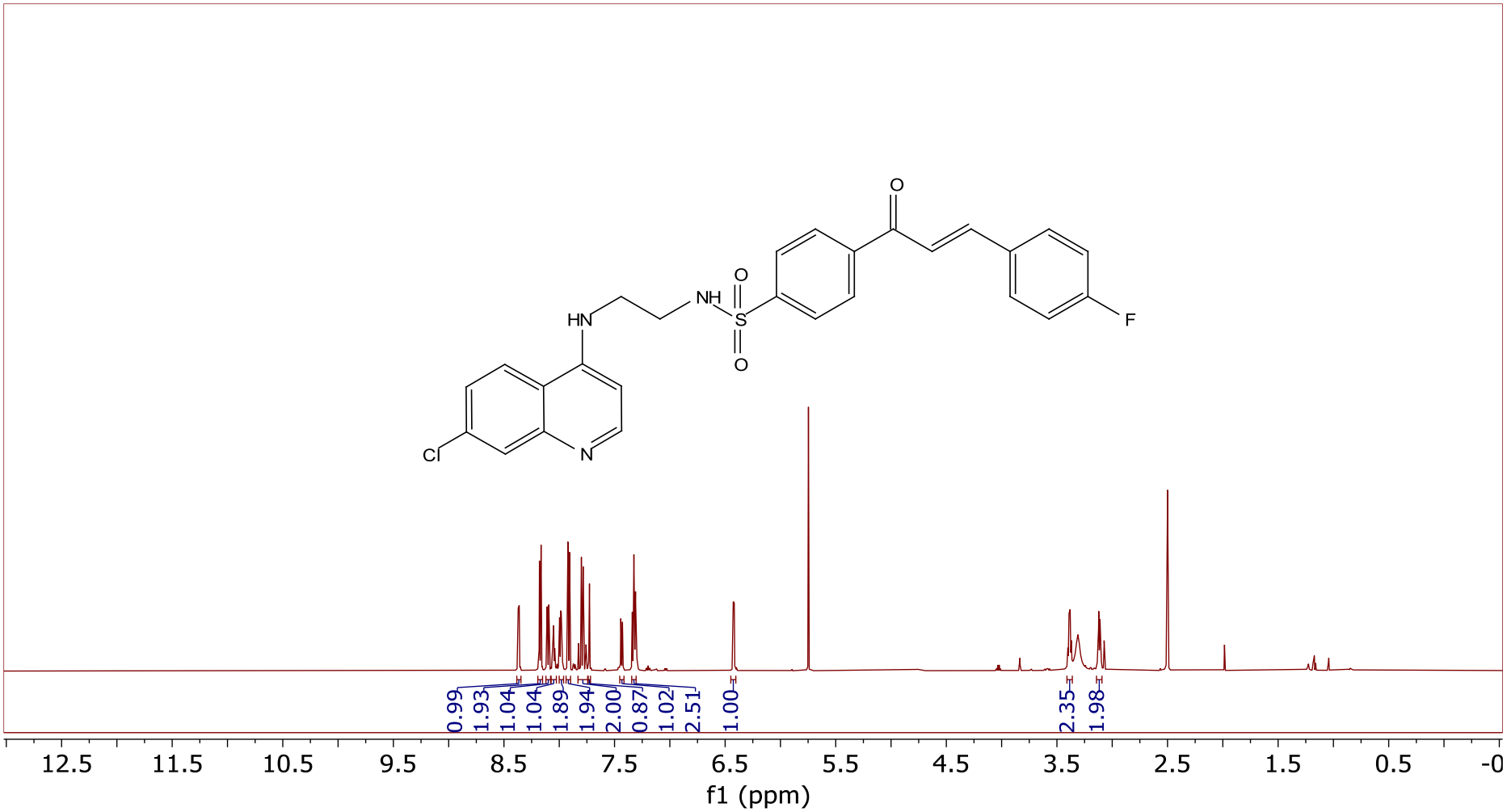
S40: ^{13}C NMR spectrum of (E)-N-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(furan-2-yl)acryloyl)benzenesulfonamide **21**



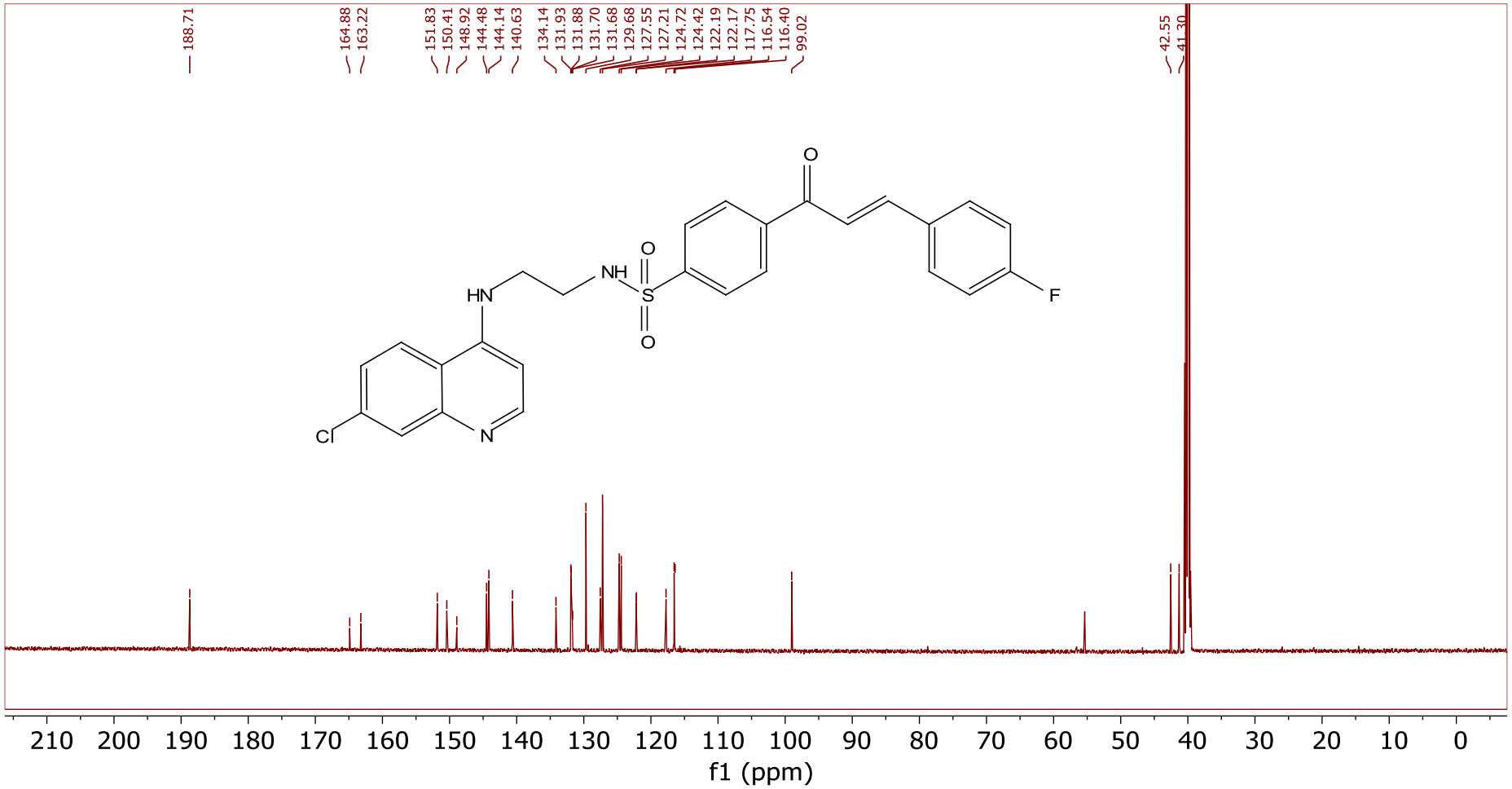
S41: ^{1}H NMR spectrum of (*E*)-*N*-(2-((7-Chloroquinolin-4-yl)amino)ethyl)-4-(3-(*p*-tolyl)acryloyl)benzenesulfonamide **22**



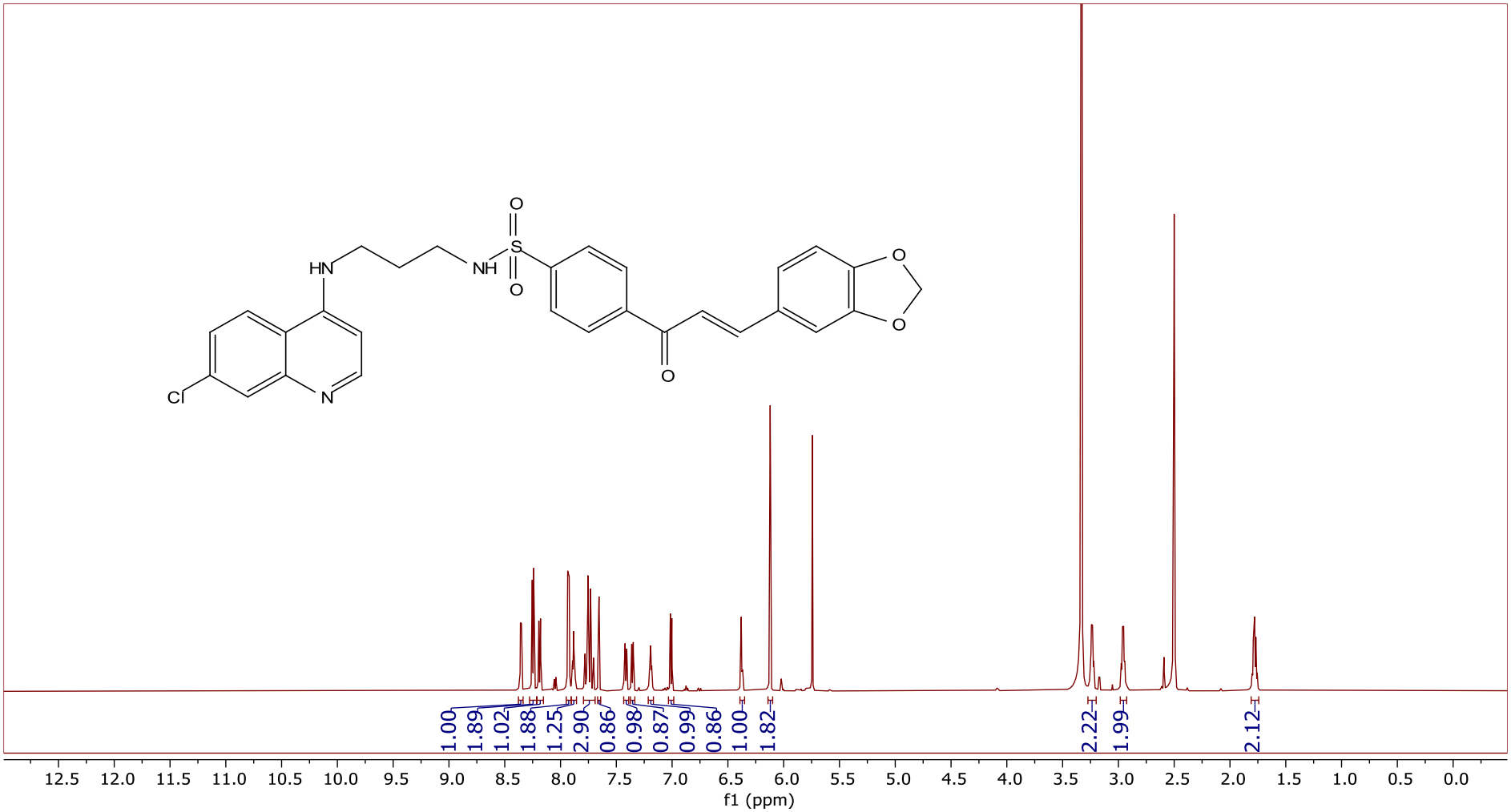
S42: ^{13}C NMR spectrum of (E)-N-(2-((7-Chloroquinolin-4-yl)amino)ethyl)-4-(3-(p-tolyl)acryloyl)benzenesulfonamide **22**



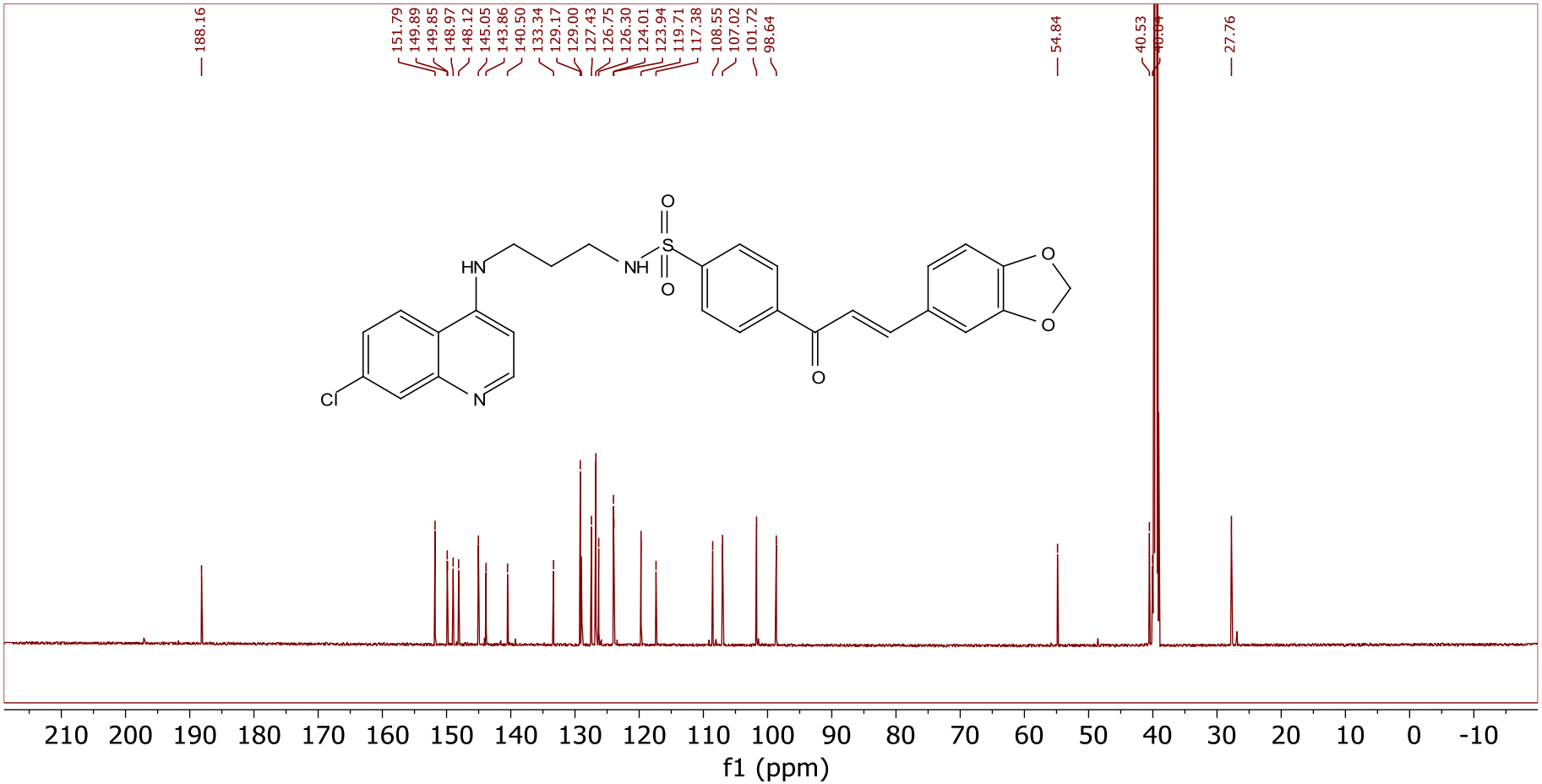
S43: ^{1}H NMR spectrum of (E)-N-(2-((7-Chloroquinolin-4-yl)amino)ethyl)-4-(3-(4-fluorophenyl)acryloyl)benzenesulfonamide **24**



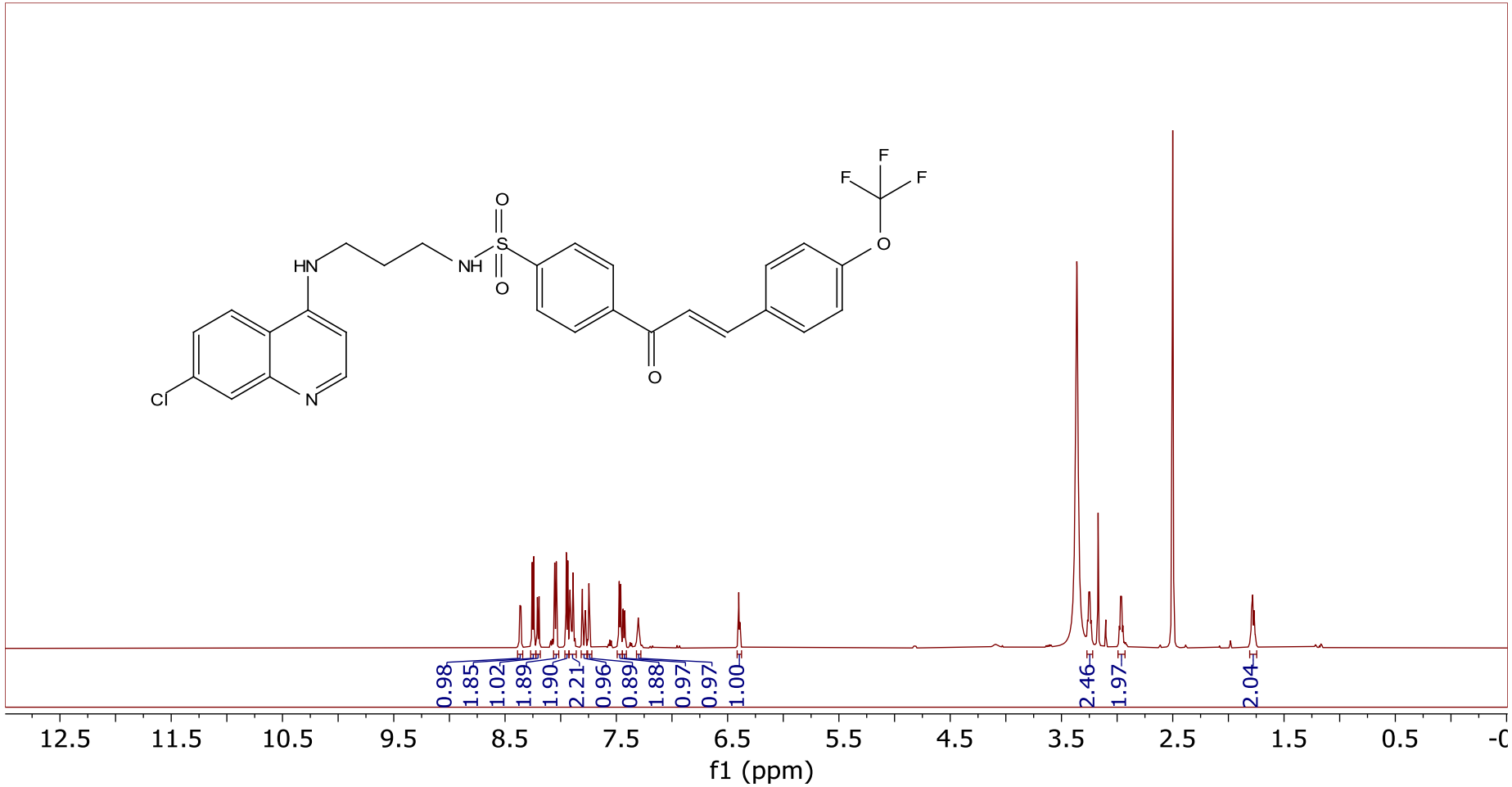
S44: ^{13}C NMR spectrum of (E)-N-(2-((7-Chloroquinolin-4-yl)amino)ethyl)-4-(3-(4-fluorophenyl)acryloyl)benzenesulfonamide **24**



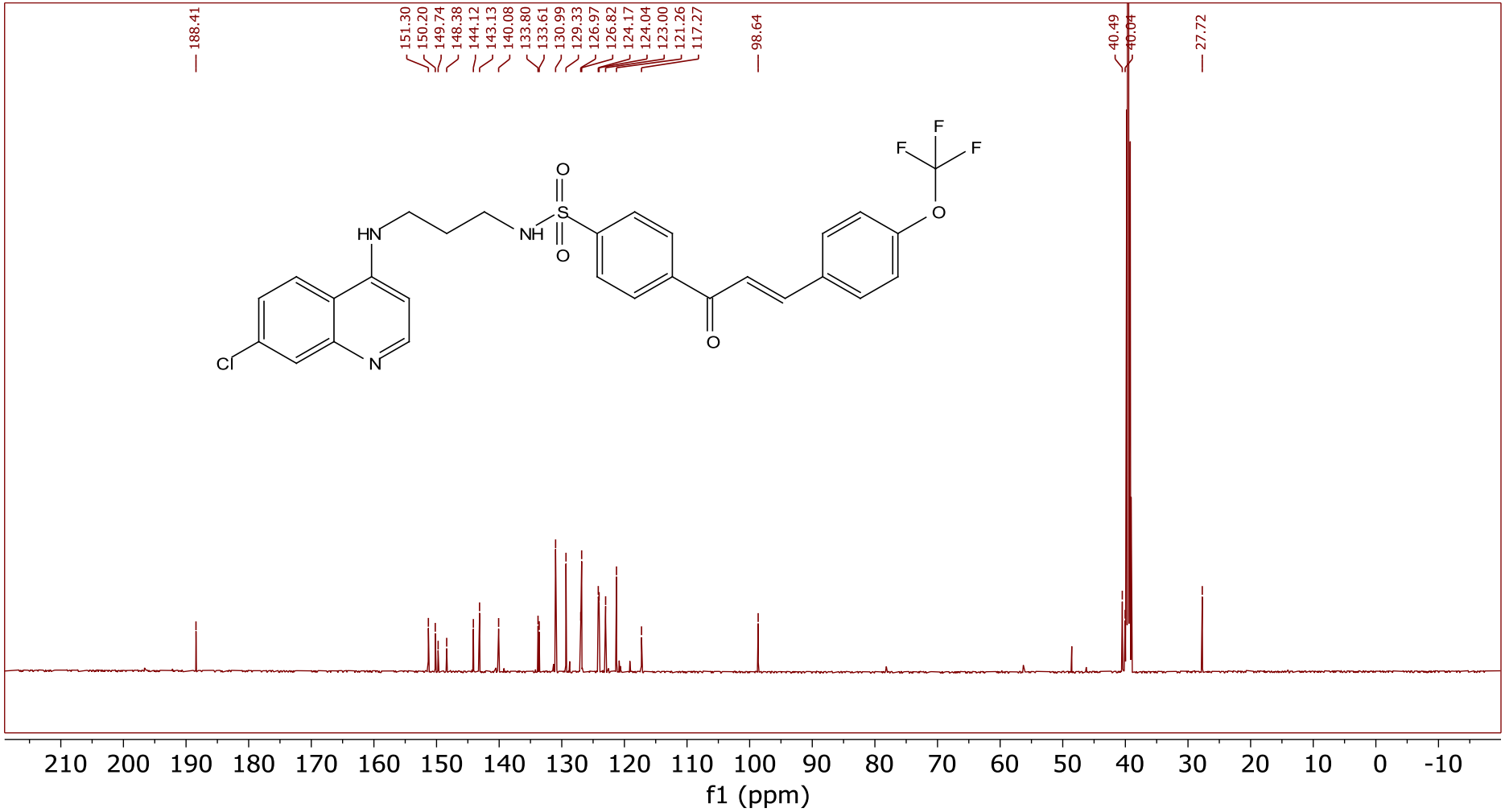
S45: ^{1}H NMR spectrum of (*E*)-4-(3-(Benzo[d][1,3]dioxol-5-yl)acryloyl)-*N*-(3-((7-chloroquinolin-4-yl)amino)propyl)benzenesulfonamide **26**



S46: ^{13}C NMR spectrum of (*E*)-4-(3-(Benzo[d][1,3]dioxol-5-yl)acryloyl)-*N*-(3-((7-chloroquinolin-4-yl)amino)propyl)benzenesulfonamide **26**

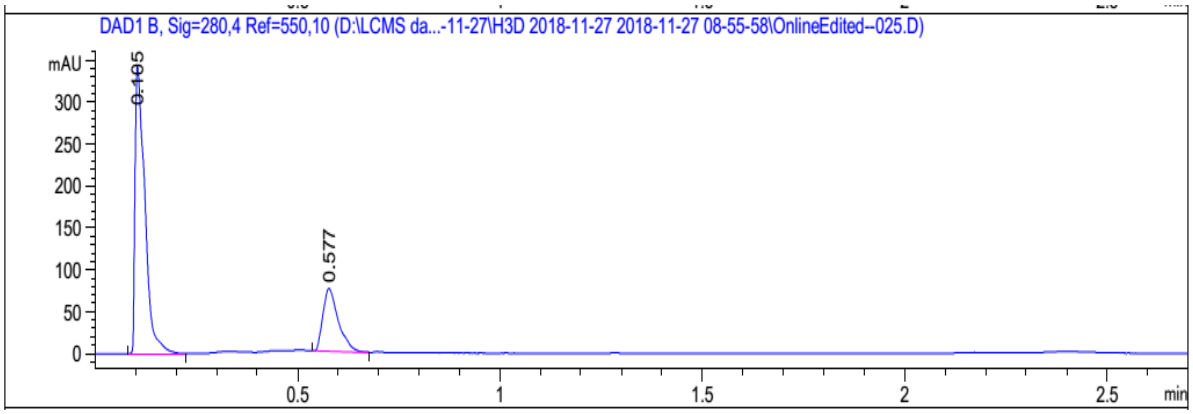


S47: ^{1}H NMR spectrum of (*E*)-*N*-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(4-(trifluoromethoxy)phenyl)acryloyl)benzenesulfonamide **27**

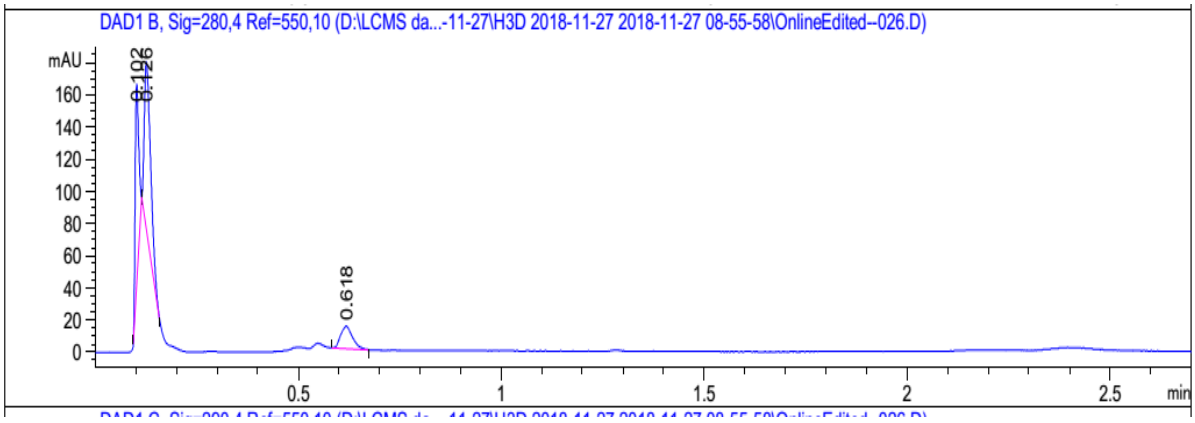


S48: ^{13}C NMR spectrum of (E)-N-(3-((7-Chloroquinolin-4-yl)amino)propyl)-4-(3-(4-(trifluoromethoxy)phenyl)acryloyl)benzenesulfonamide **27**

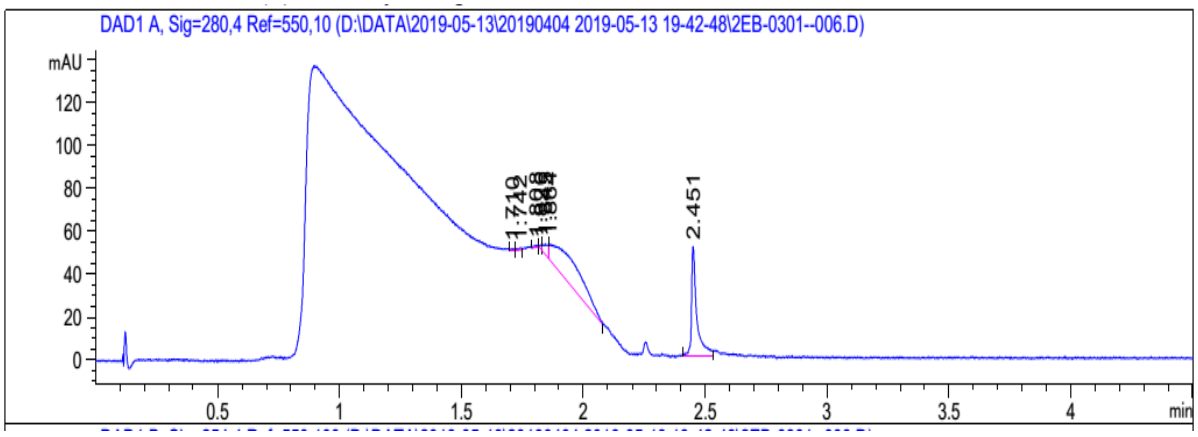
HPLC of representative compounds



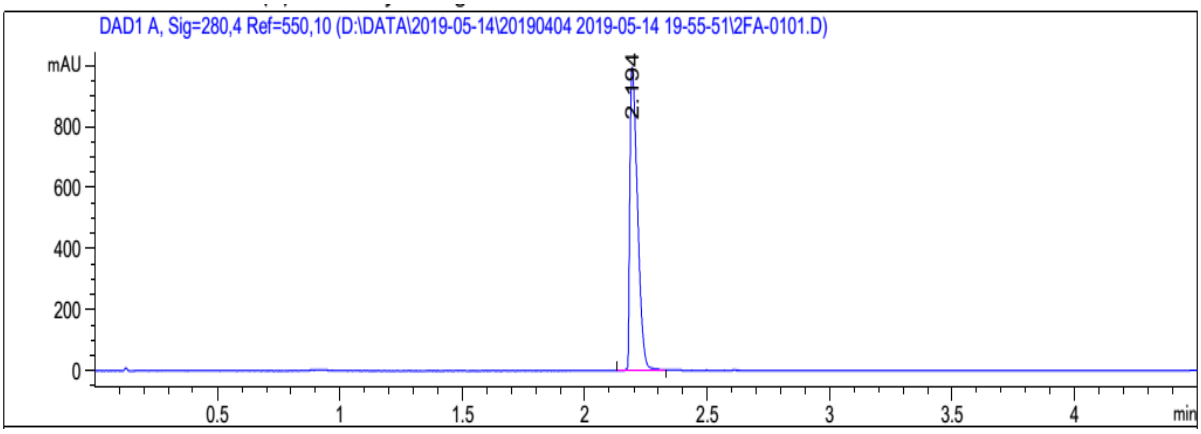
S49: HPLC chromatogram of **2**



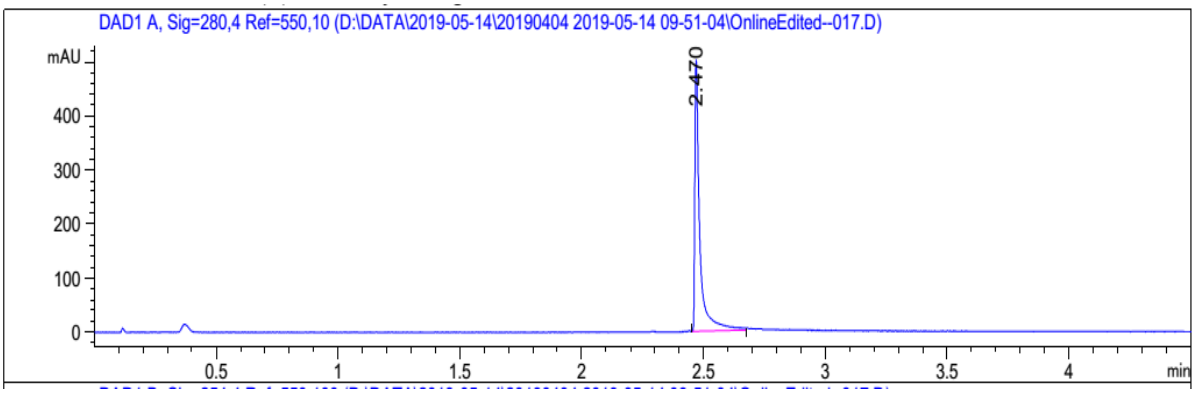
S50: HPLC chromatogram of **3**



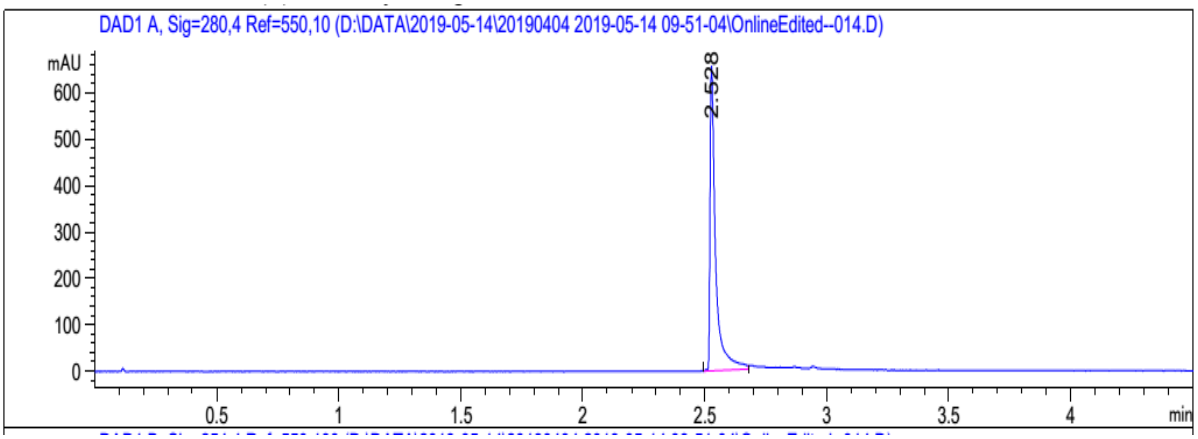
S51: HPLC chromatogram of **4**



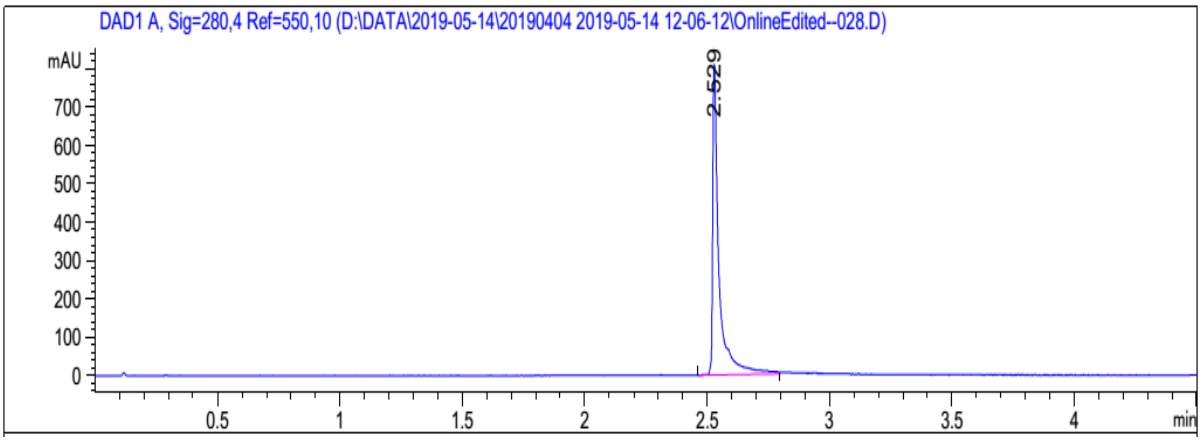
S52: HPLC chromatogram of **5**



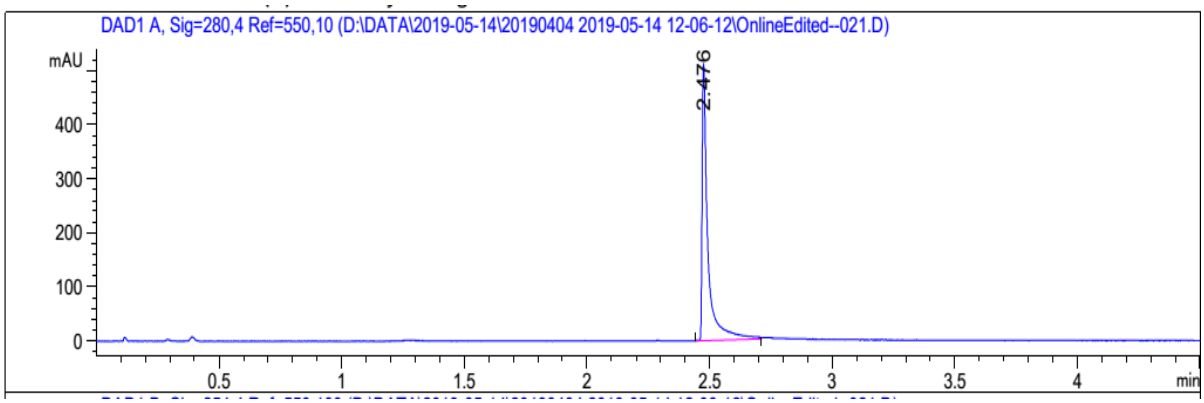
S53: HPLC chromatogram of **6**



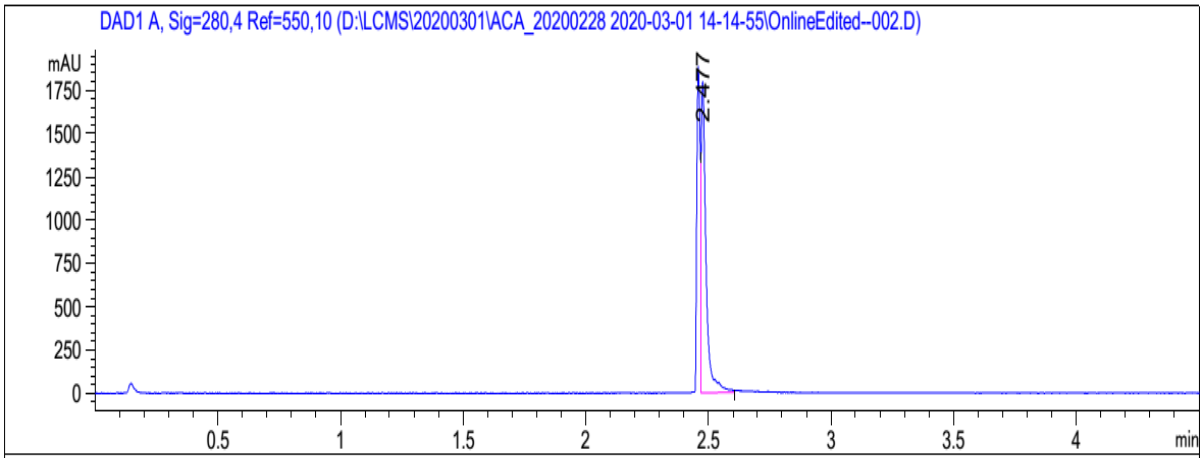
S54: HPLC chromatogram of **7**



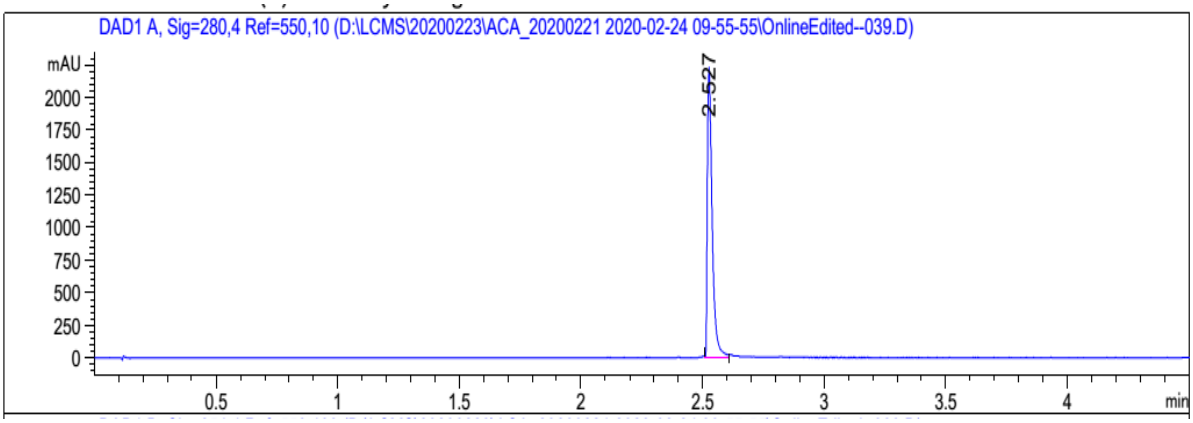
S55: HPLC chromatogram of **8**



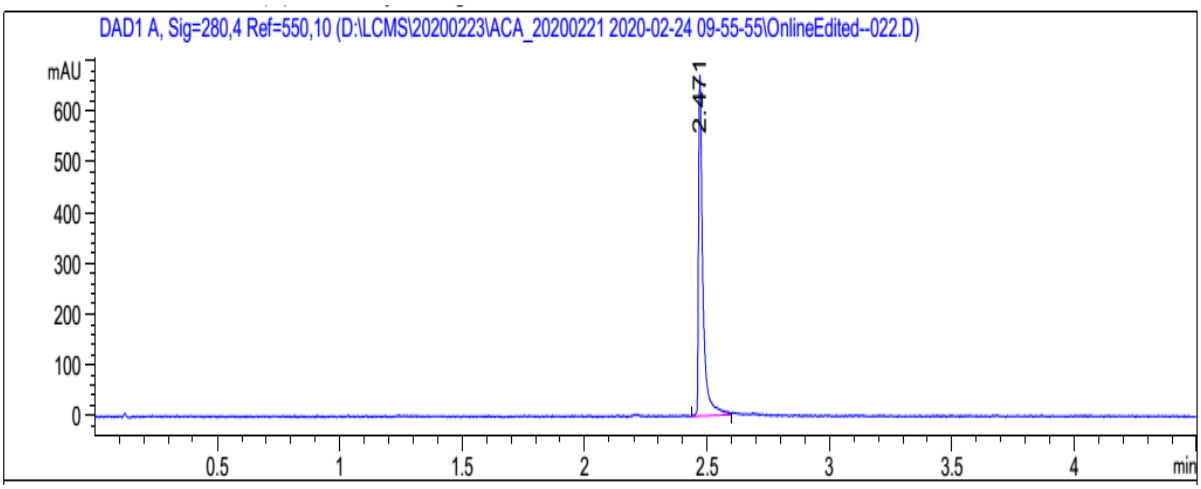
S56: HPLC chromatogram of **9**



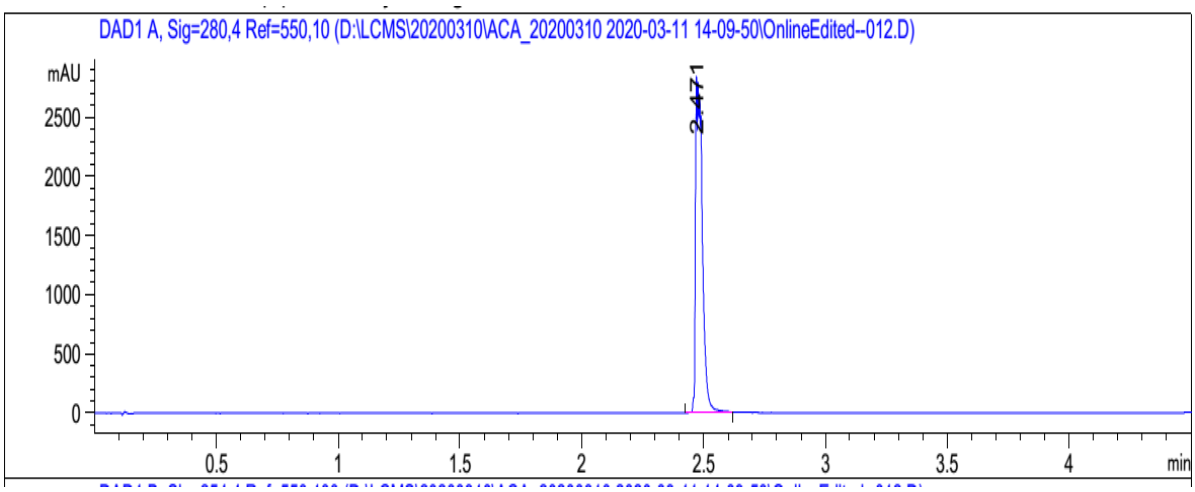
S57: HPLC chromatogram of **10**



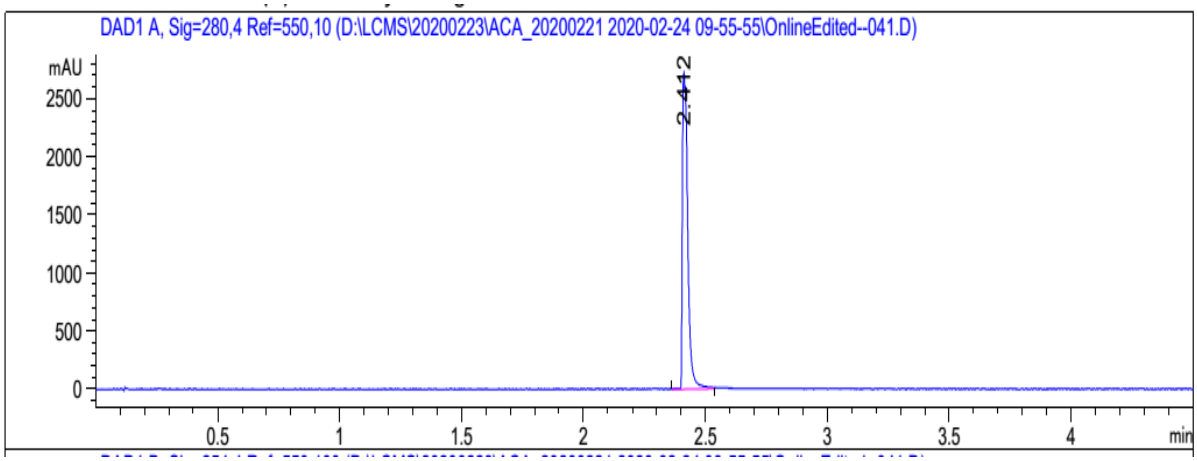
S58: HPLC chromatogram of **11**



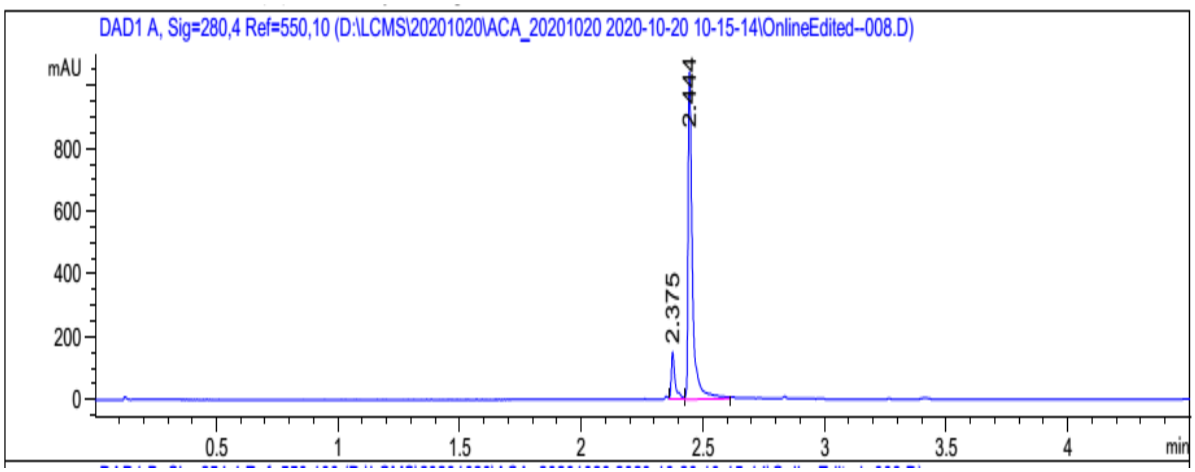
S59: HPLC chromatogram of **12**



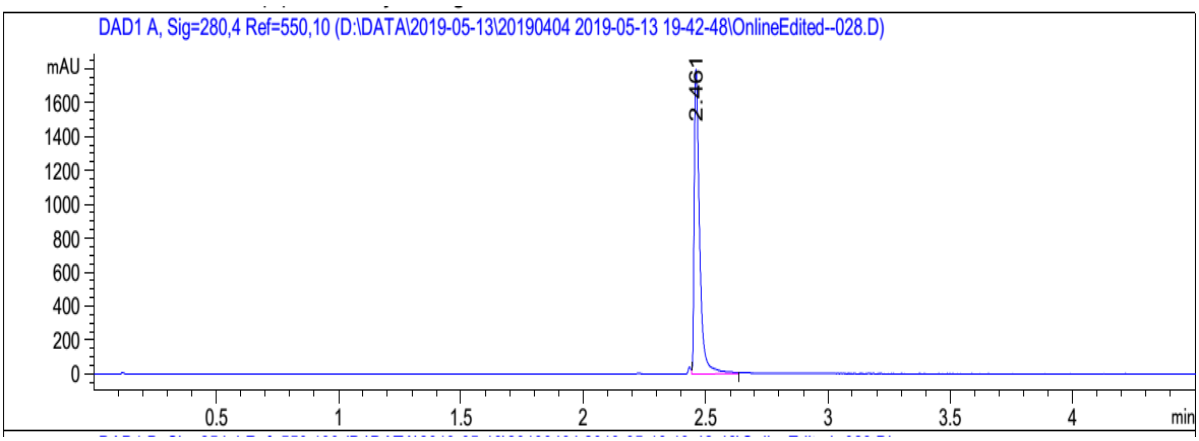
S60: HPLC chromatogram of **13**



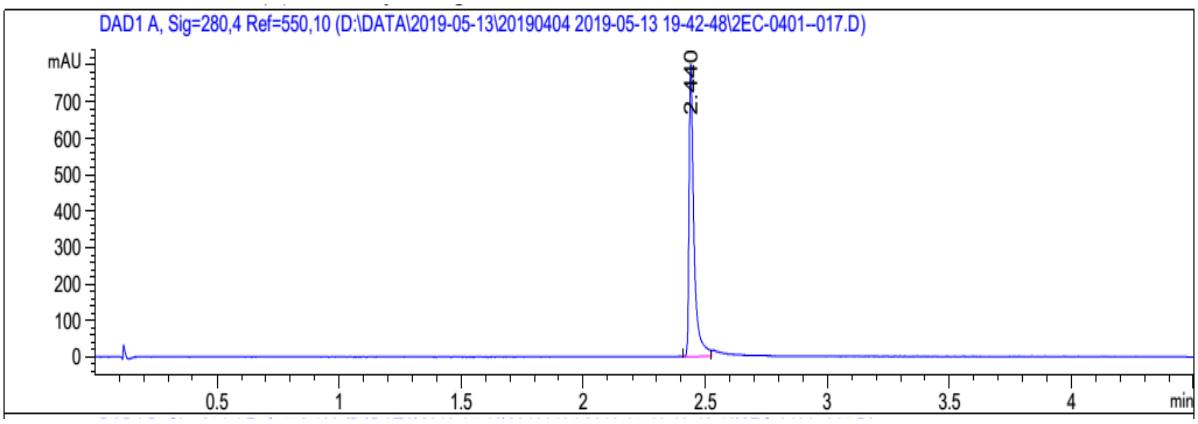
S61: HPLC chromatogram of **14**



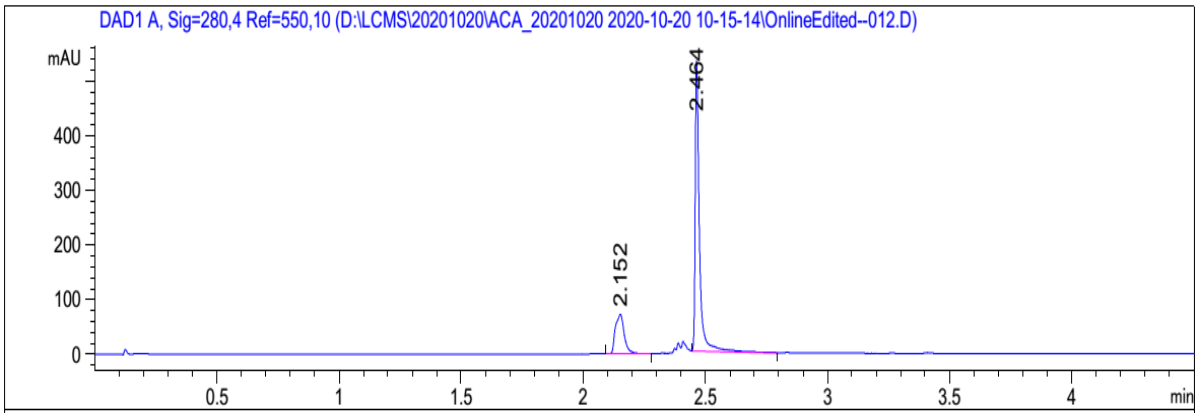
S62: HPLC chromatogram of **15**



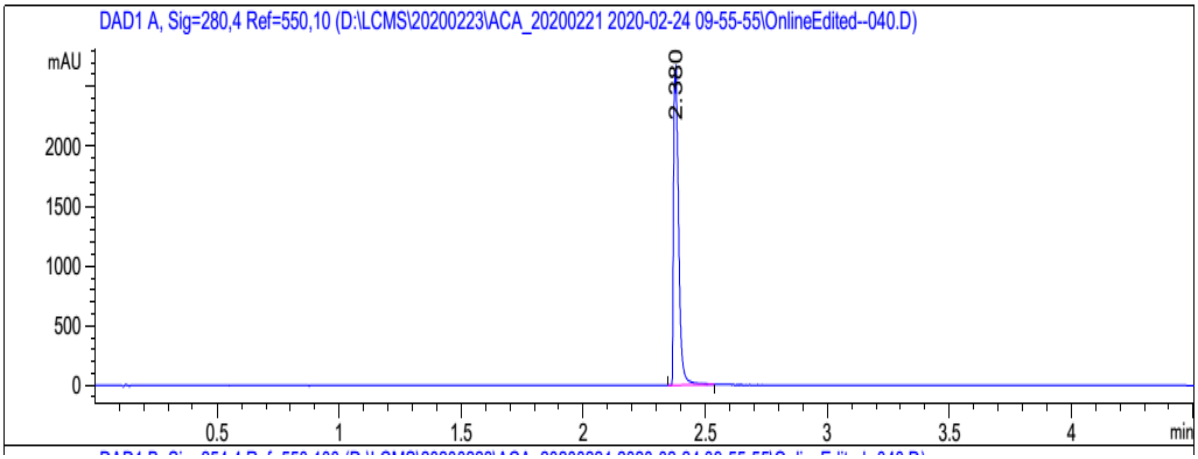
S63: HPLC chromatogram of **16**



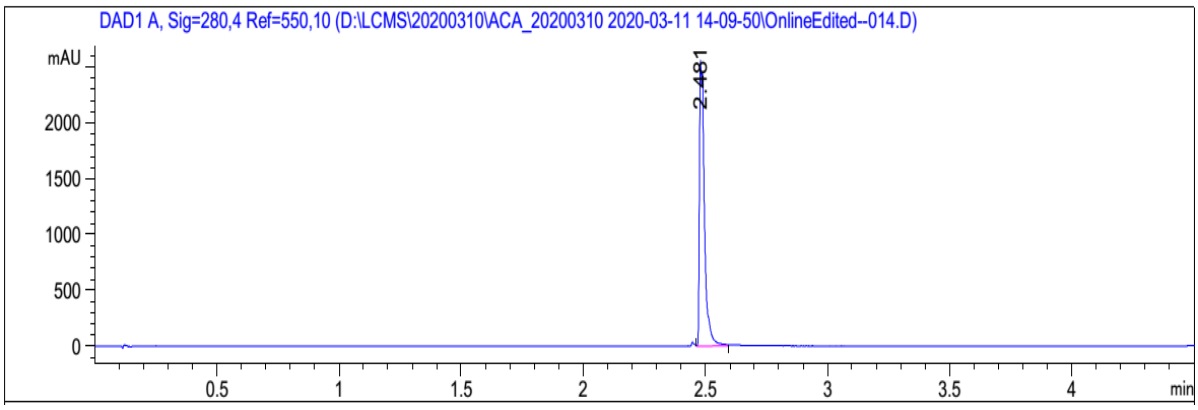
S64: HPLC chromatogram of **17**



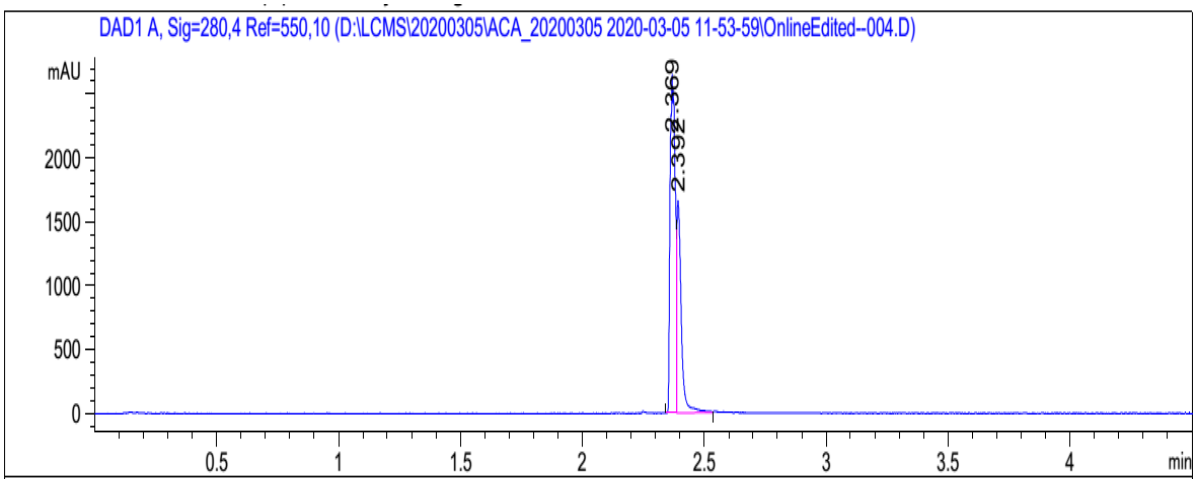
S65: HPLC chromatogram of **18**



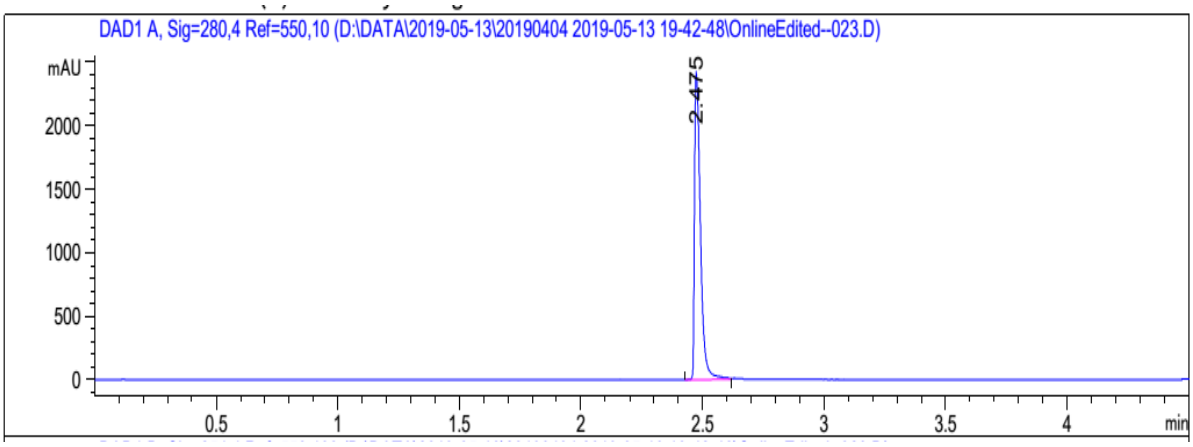
S66: HPLC chromatogram of **19**



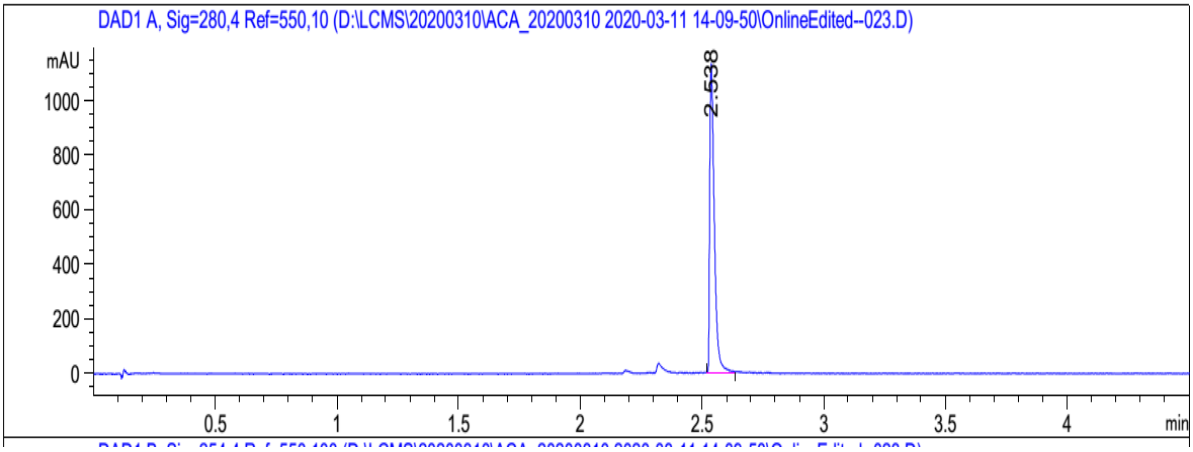
S67: HPLC chromatogram of **20**



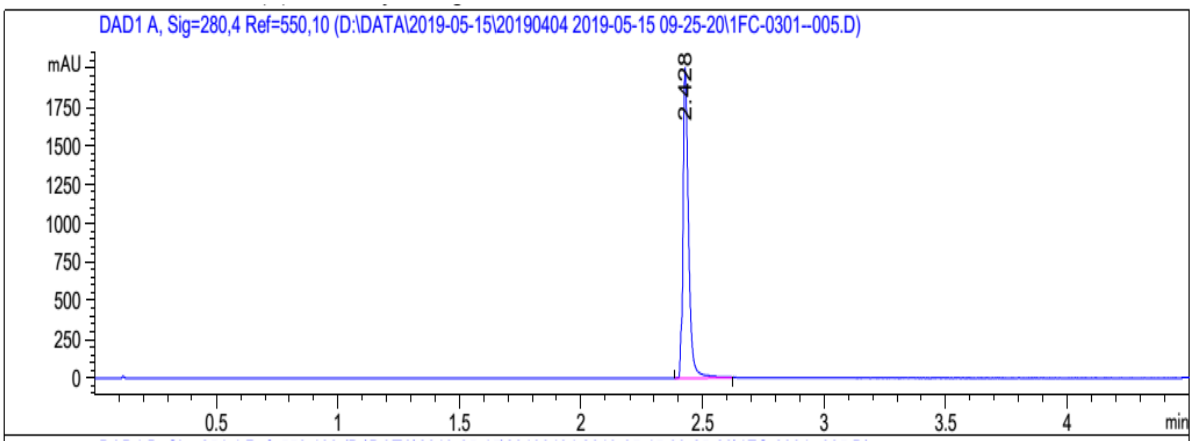
S68: HPLC chromatogram of **21**



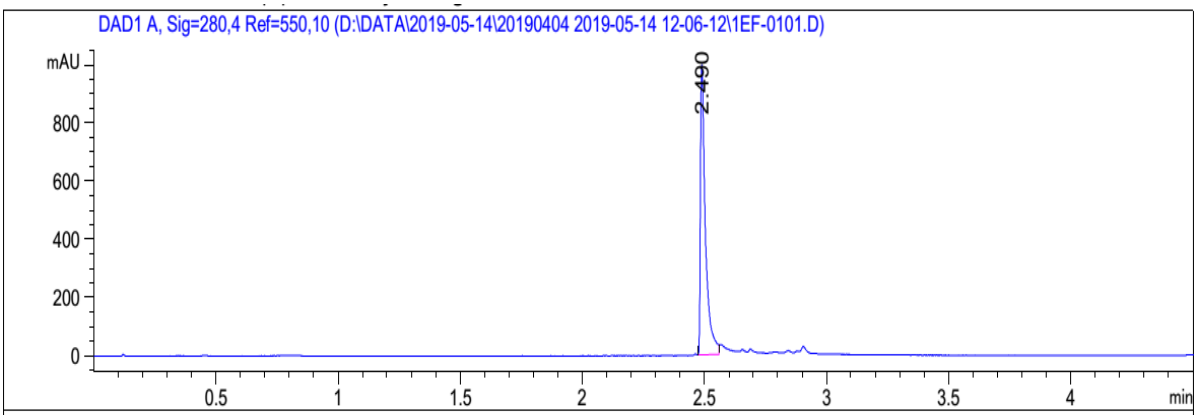
S69: HPLC chromatogram of **22**



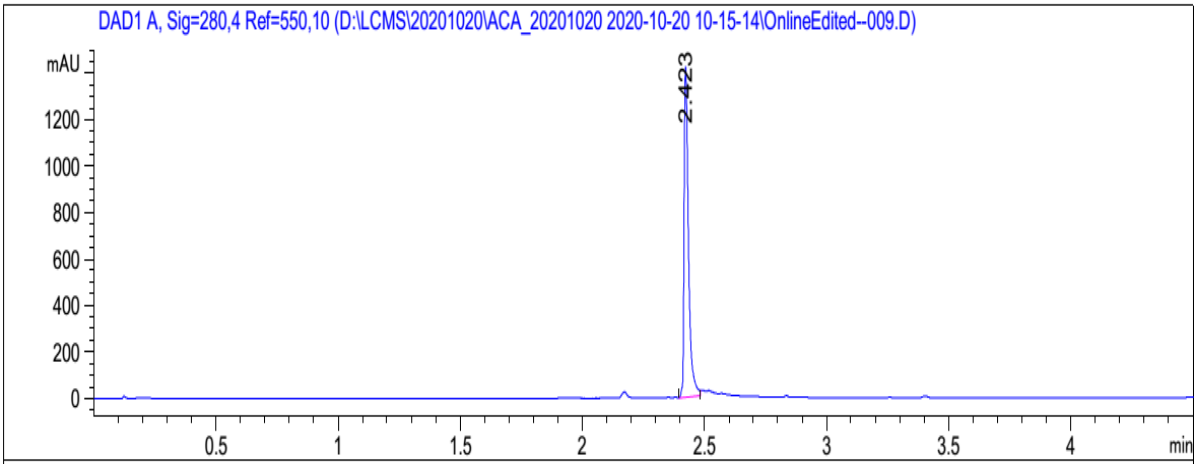
S70: HPLC chromatogram of **23**



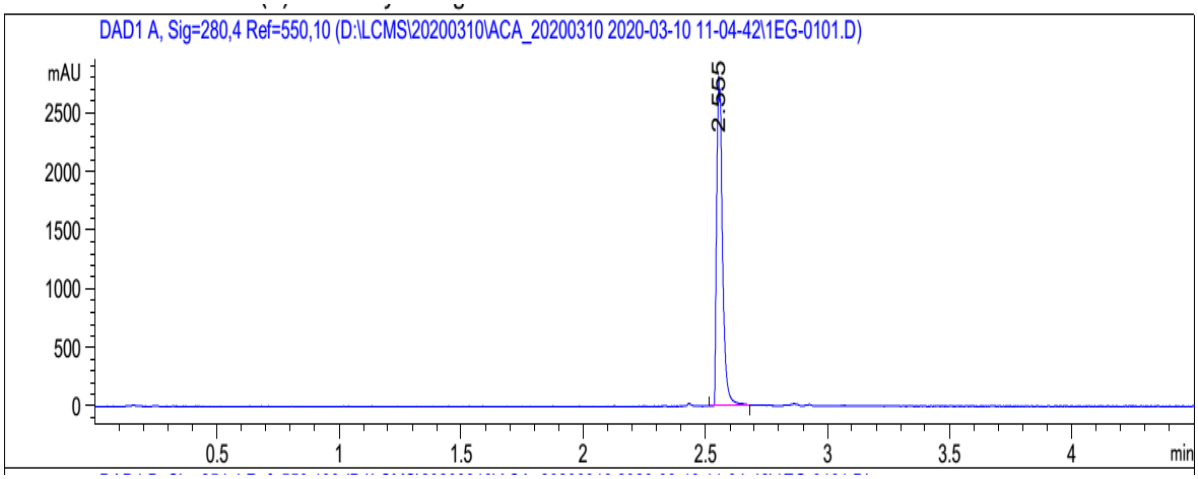
S71: HPLC chromatogram of **24**



S72: HPLC chromatogram of **25**

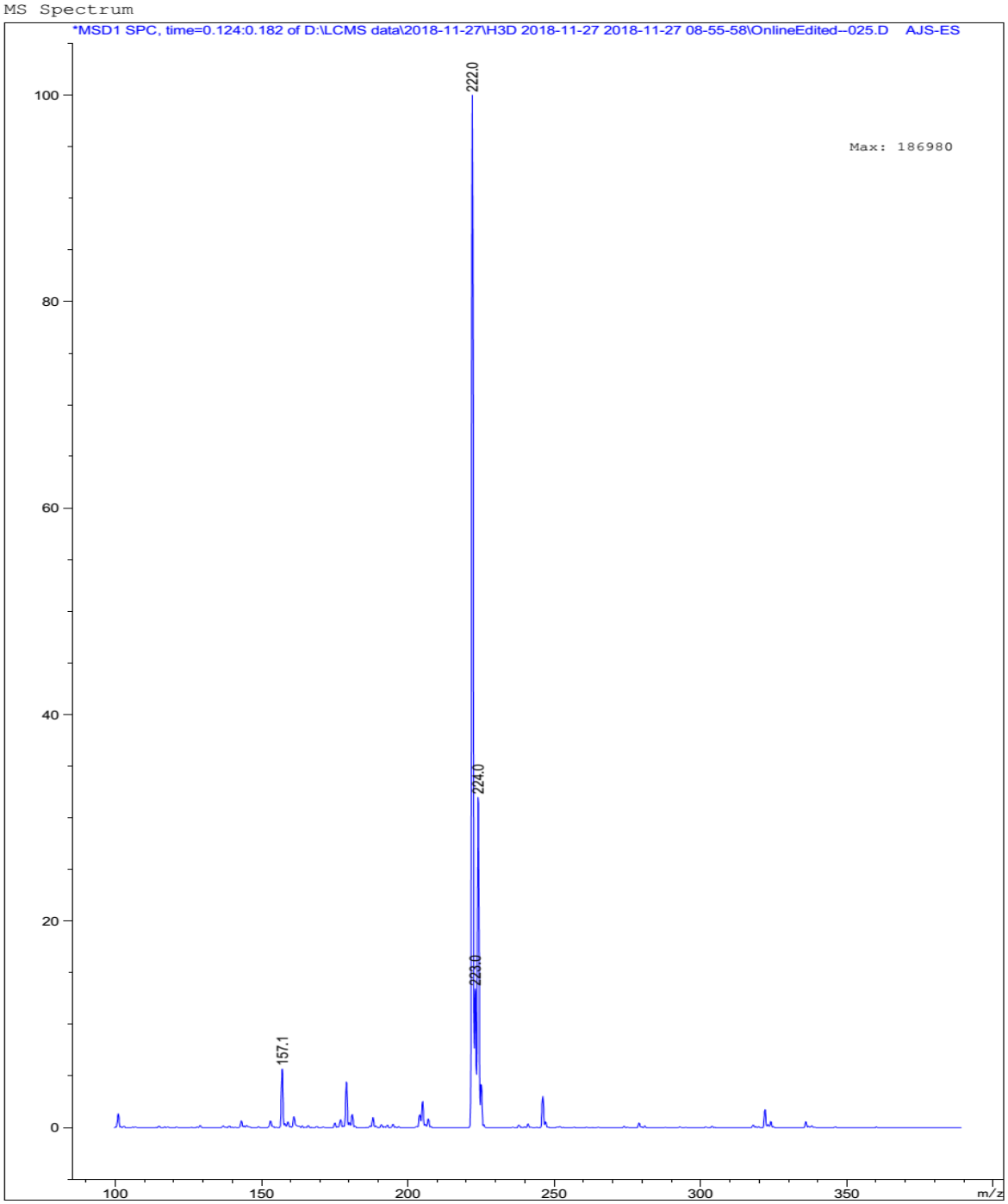


S73: HPLC chromatogram of **26**

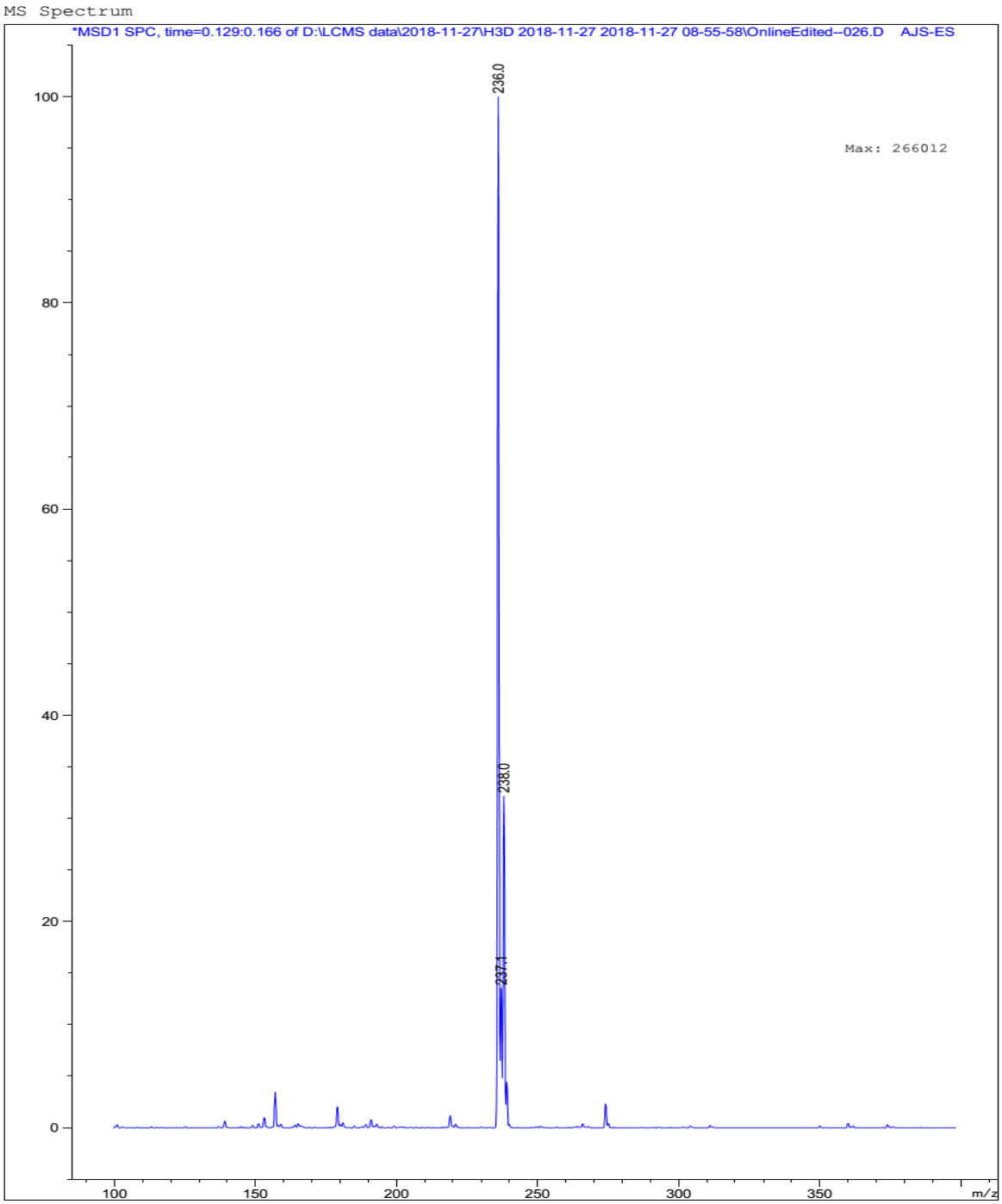


S74: HPLC chromatogram of **27**

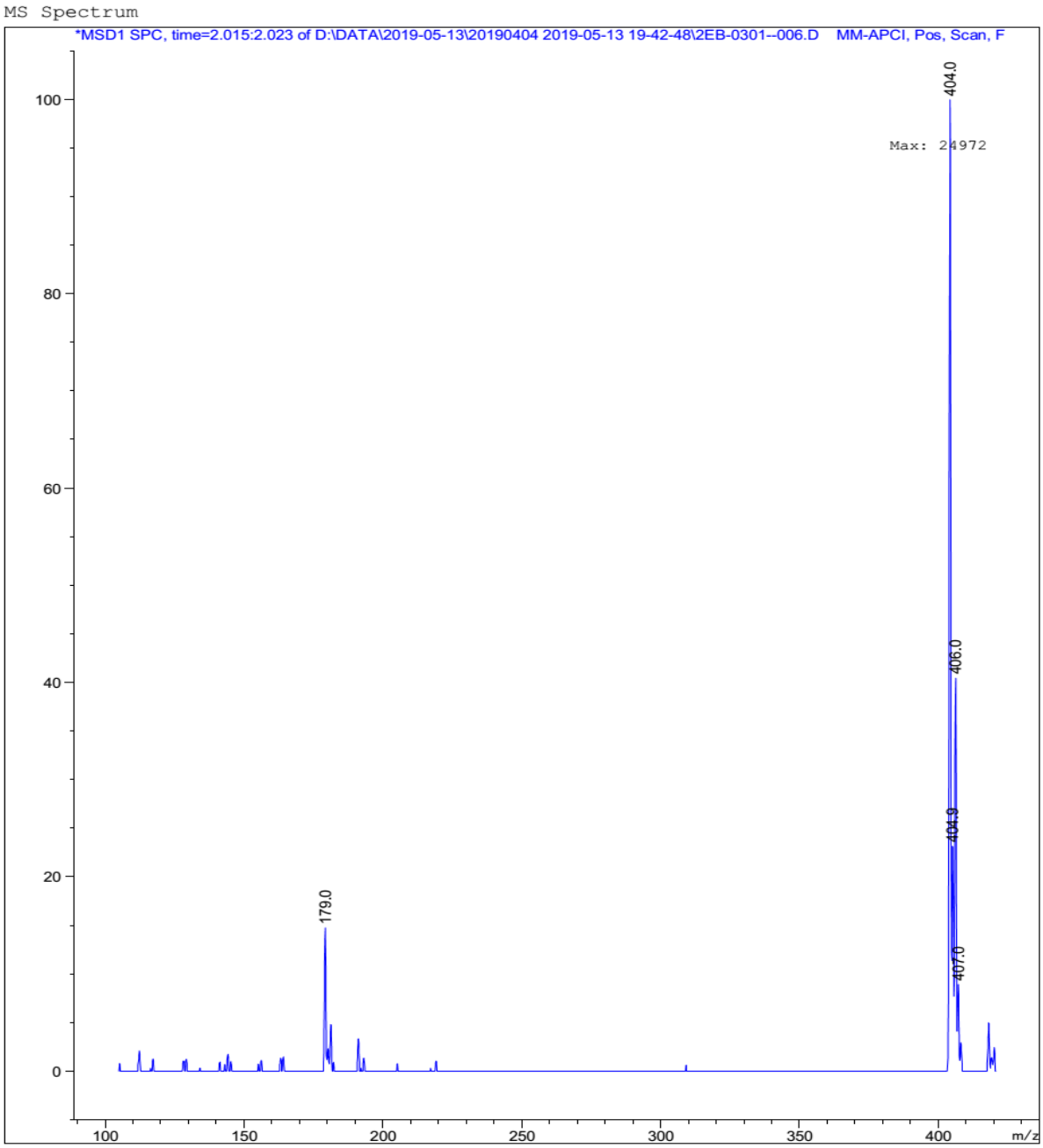
MS Spectra of representative compounds



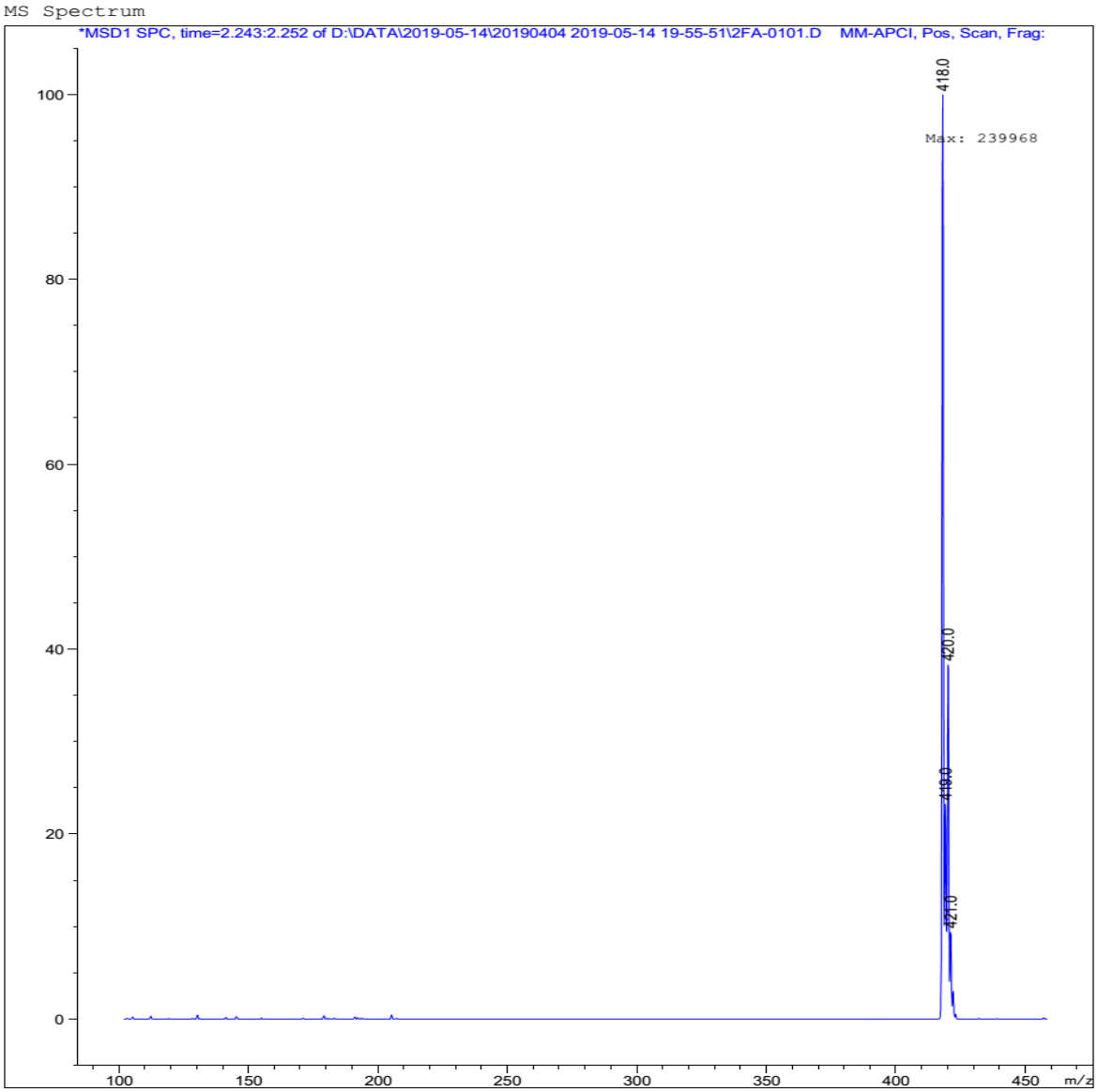
S75: HPLC-MS of **2**



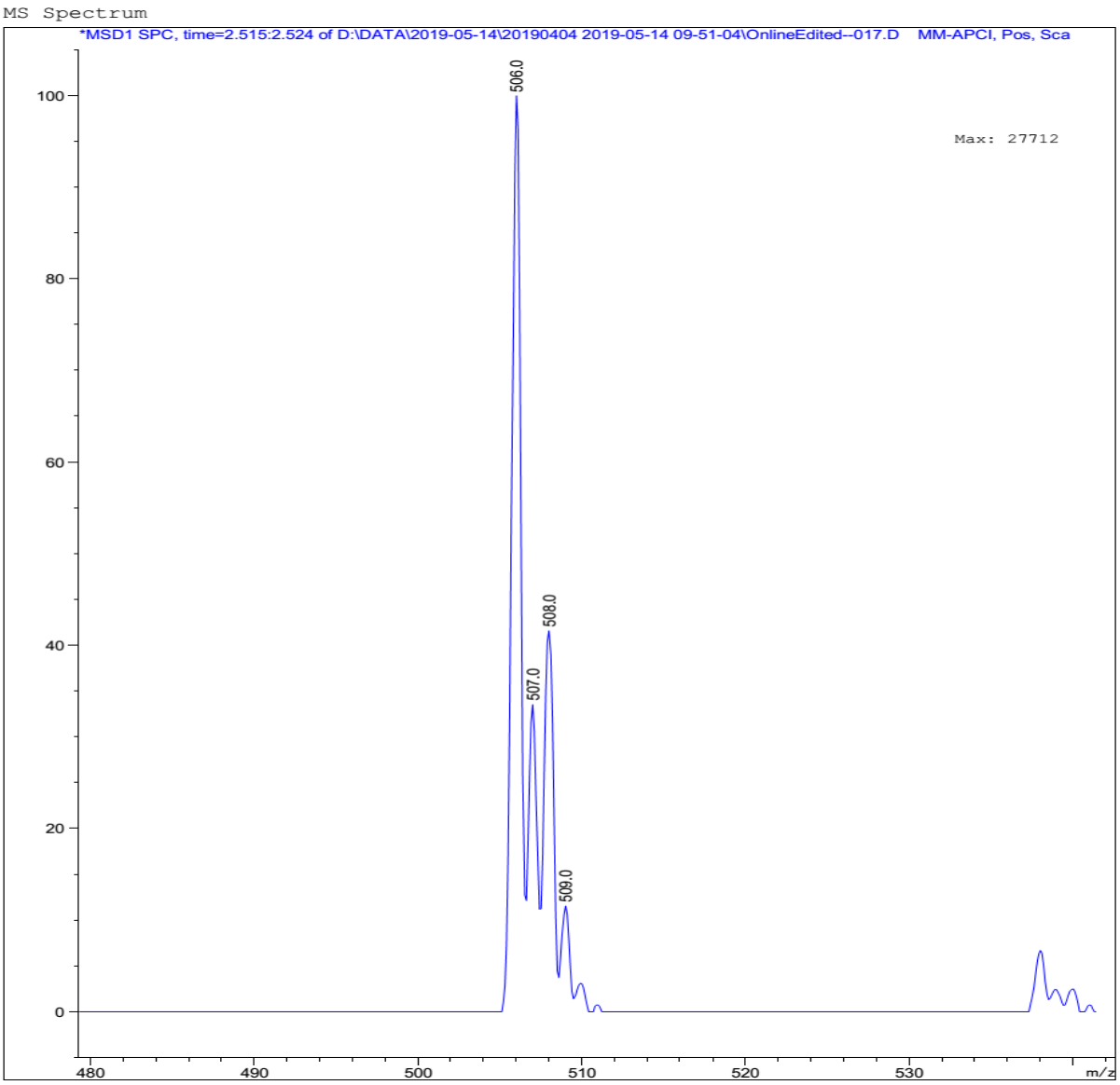
S76: HPLC-MS of **3**



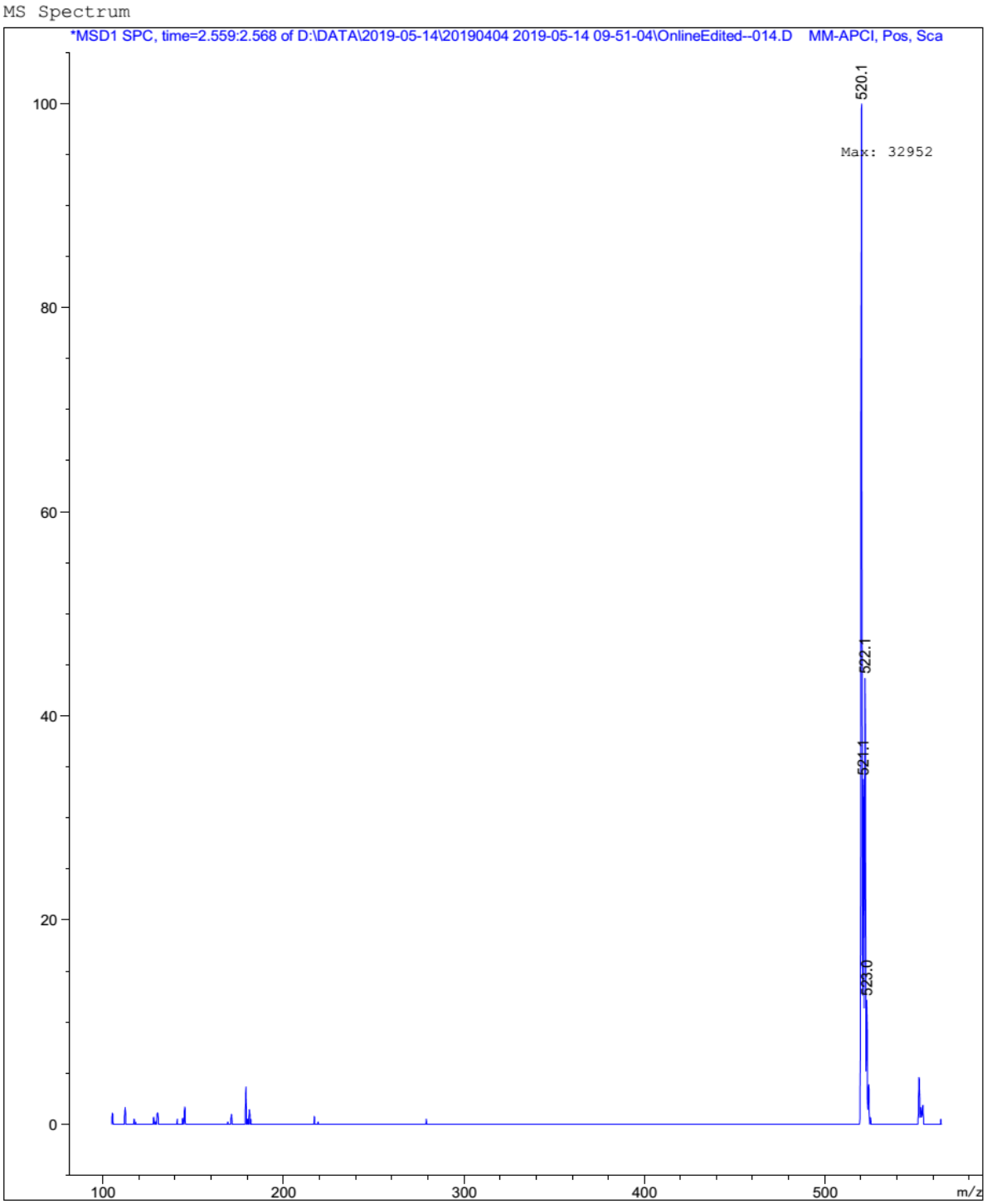
S77: HPLC-MS of **4**



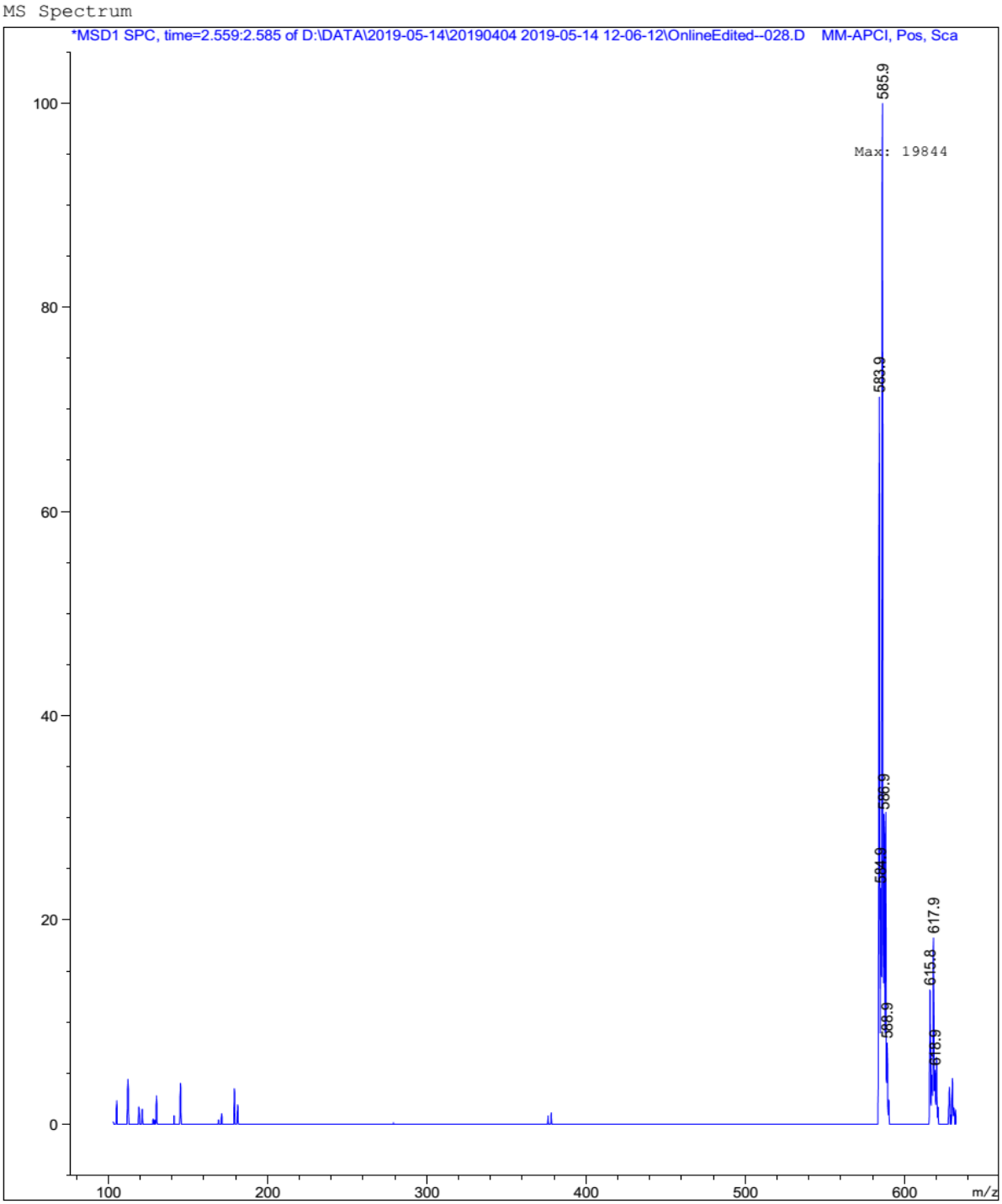
S78: HPLC-MS of **5**



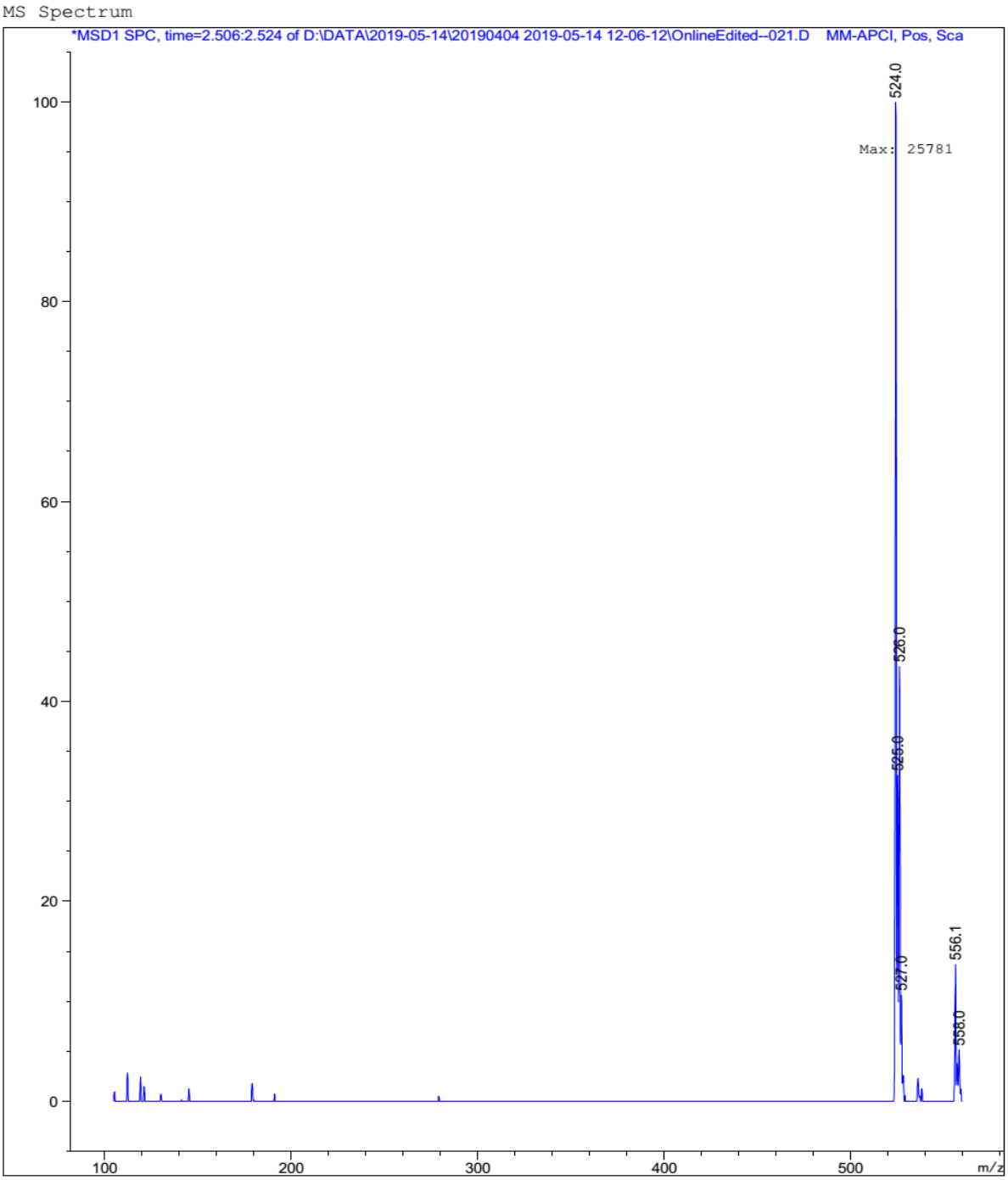
S79: HPLC-MS of **6**



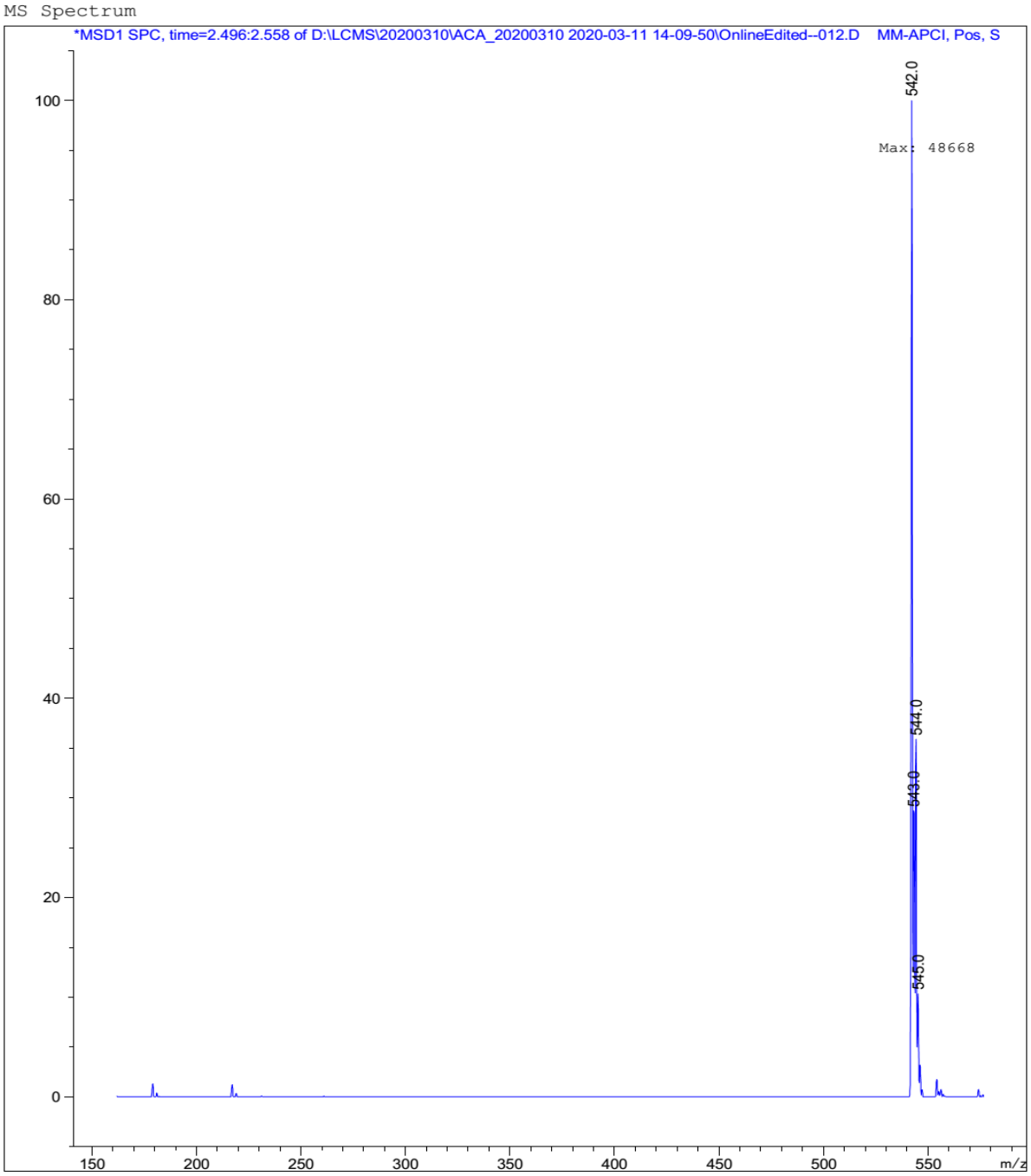
S80: HPLC-MS of **7**



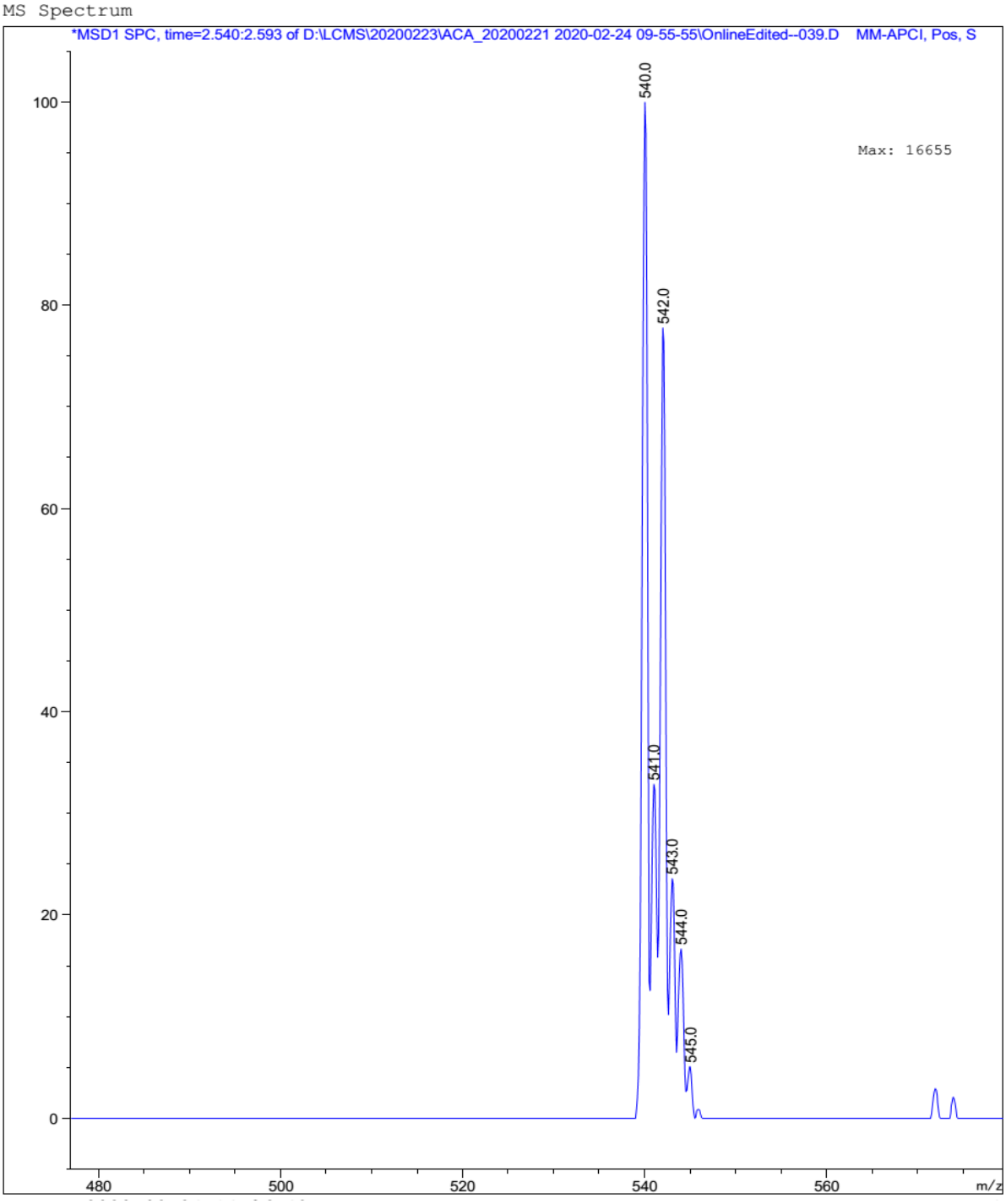
S81: HPLC-MS of **8**



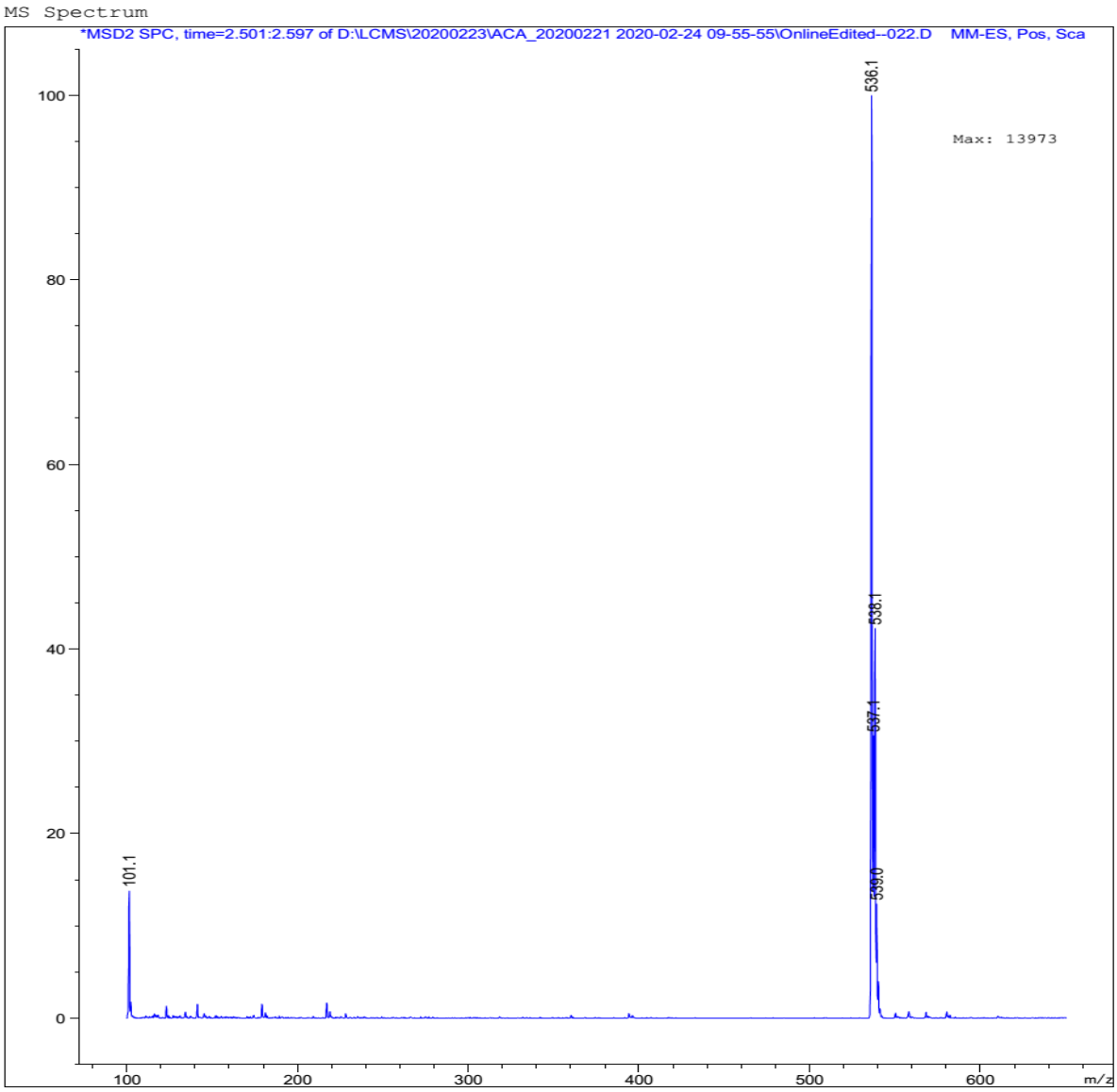
S82: HPLC-MS of **9**



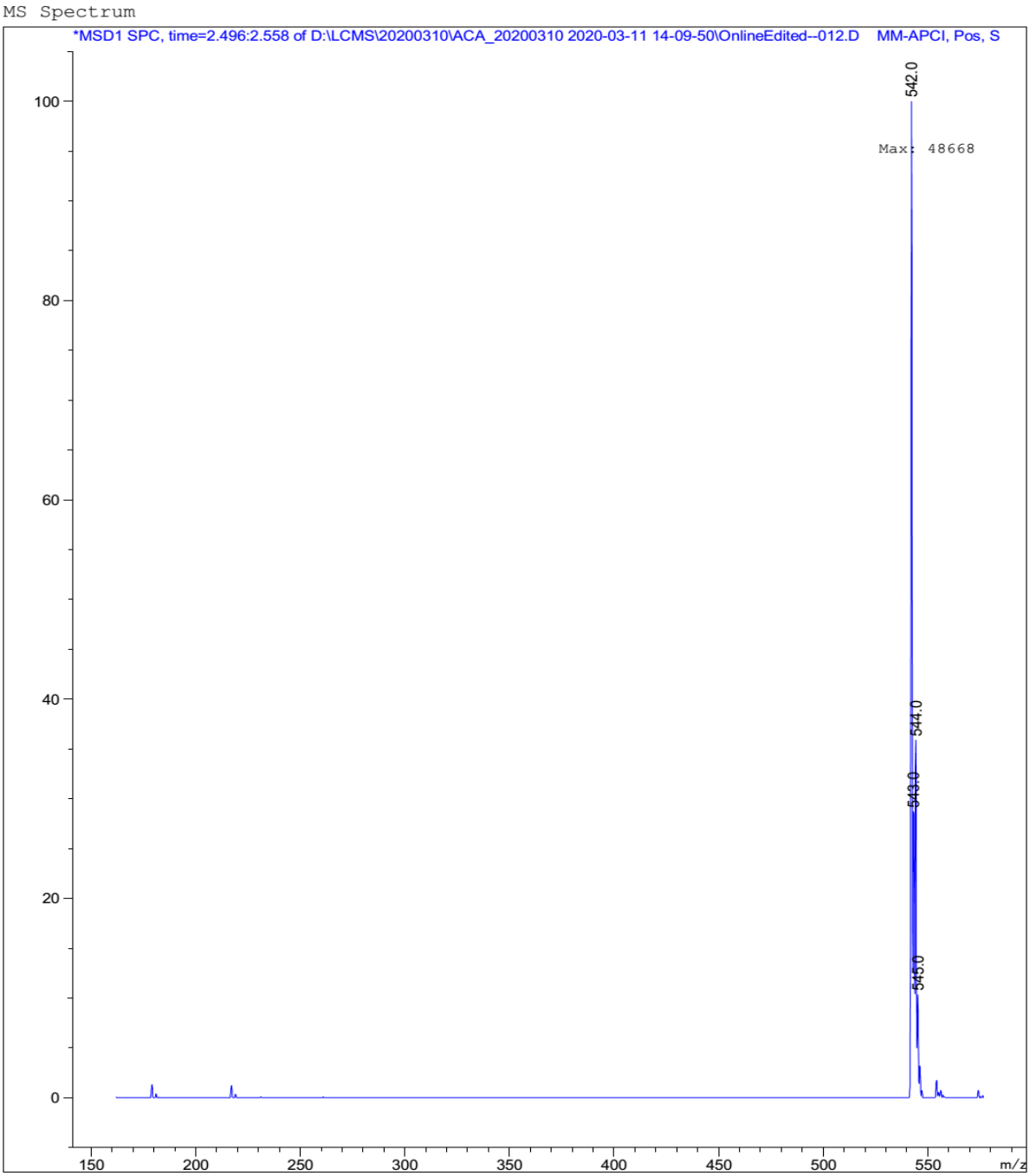
S83: HPLC-MS of **10**



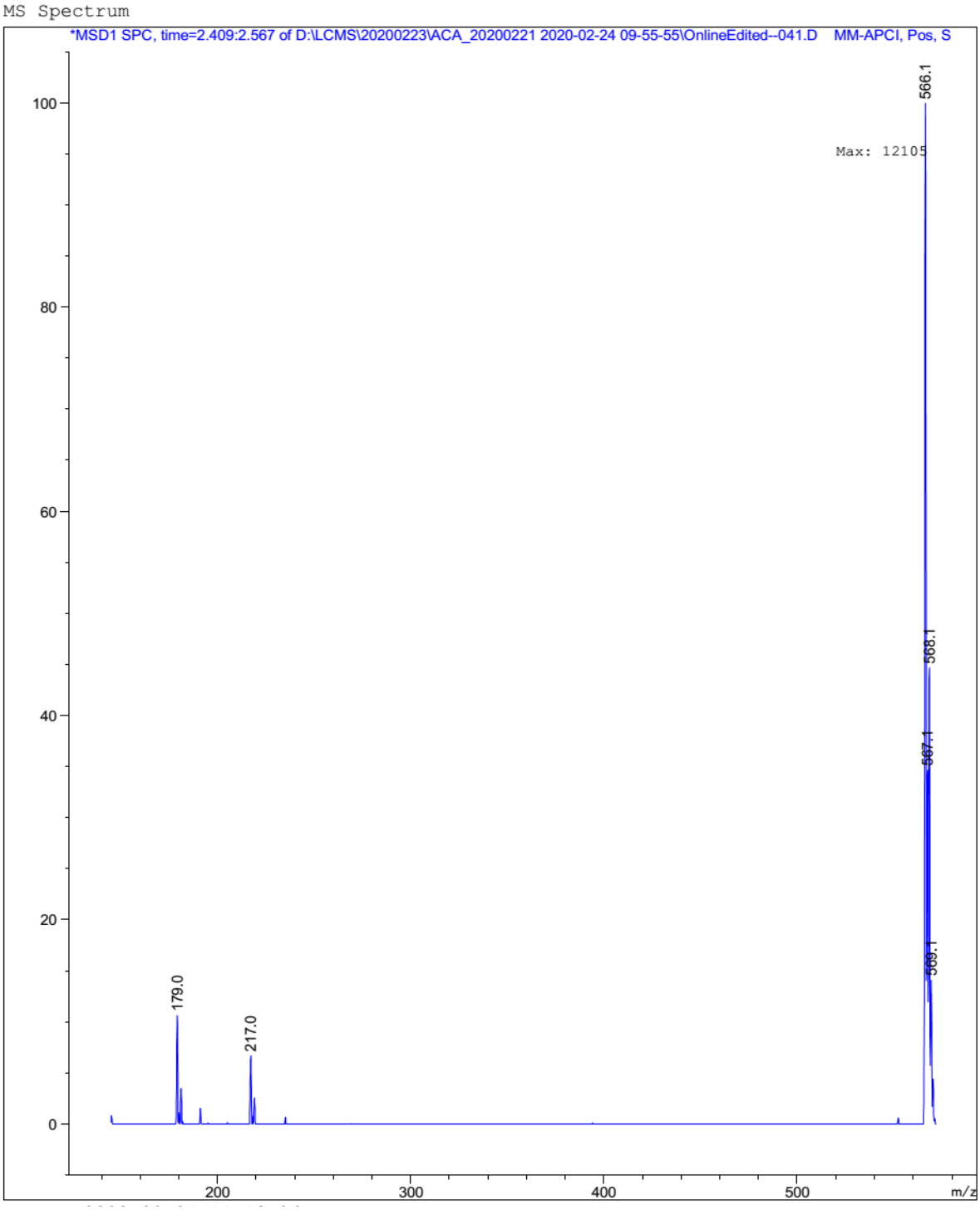
S84: HPLC-MS of **11**



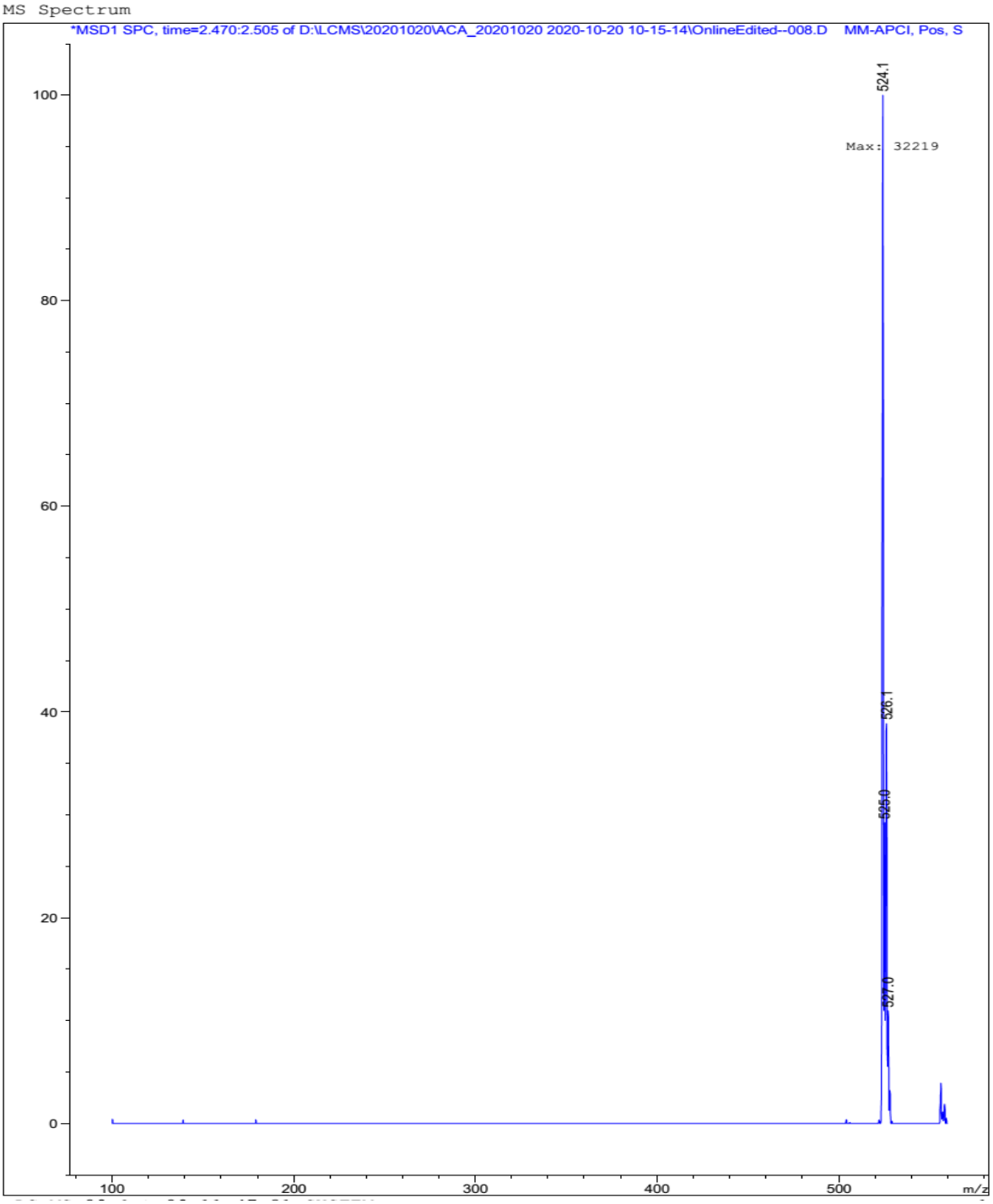
S85: HPLC-MS of **12**



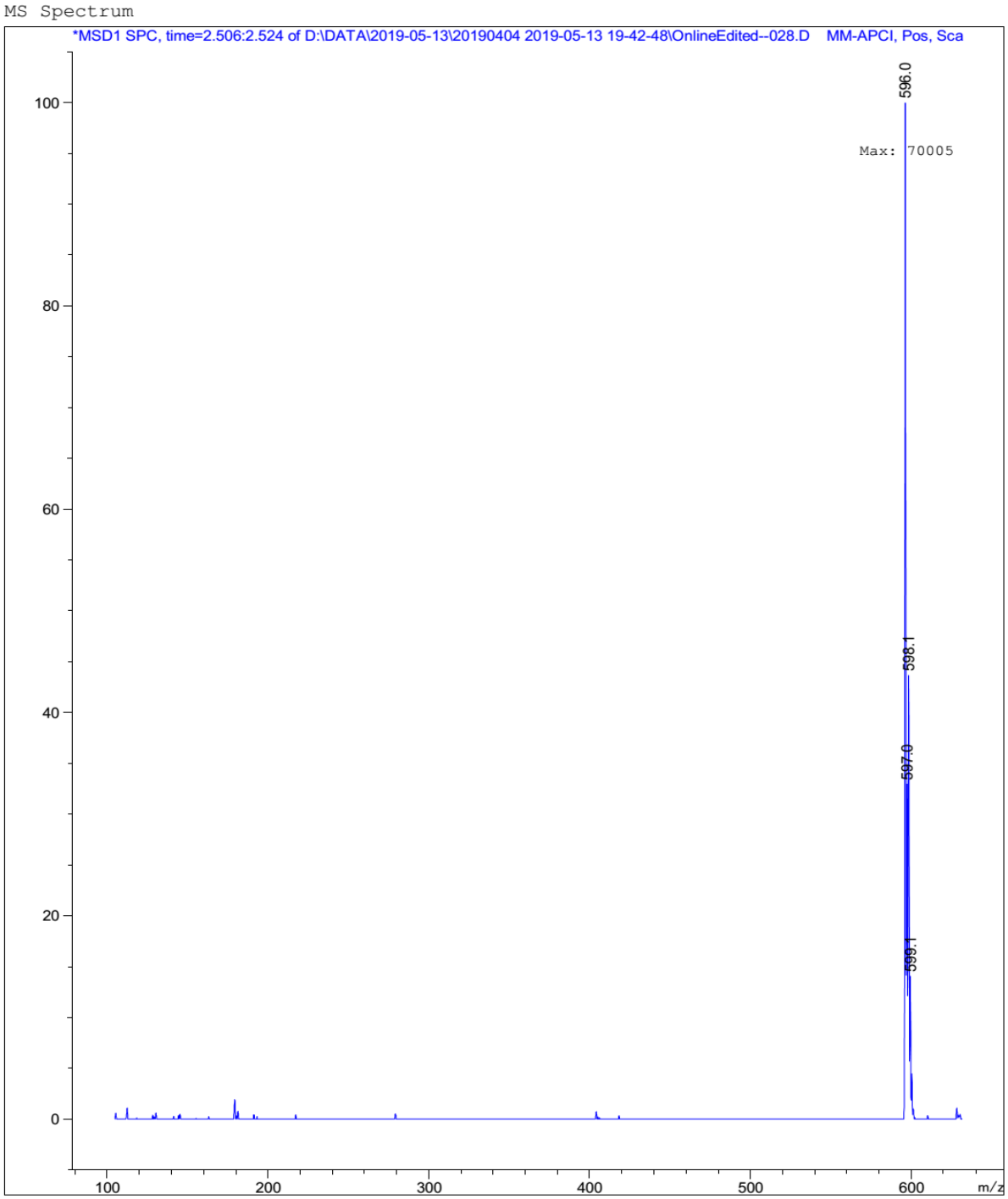
S86: HPLC-MS of **13**



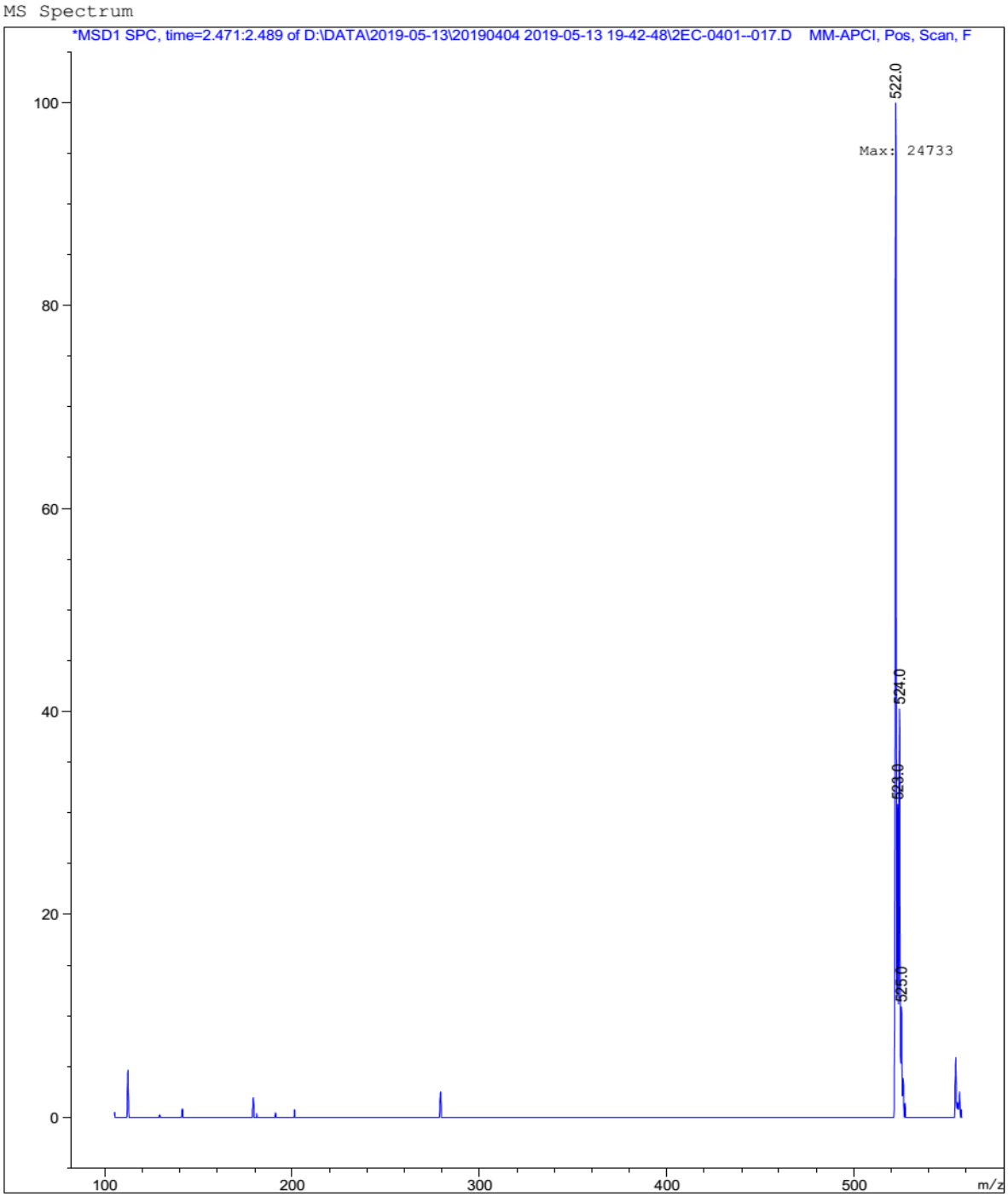
S87: HPLC-MS of **14**



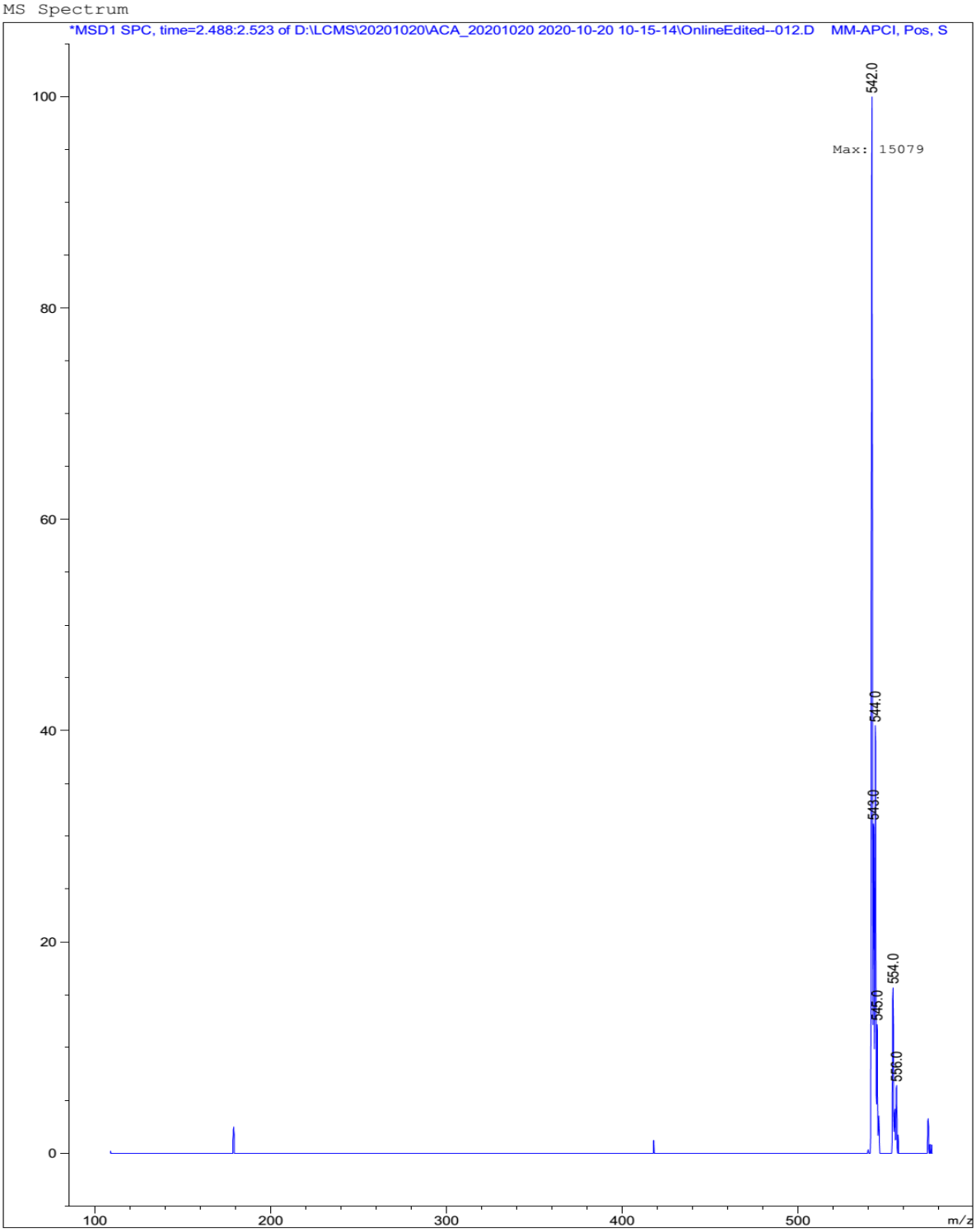
S88: HPLC-MS of **15**



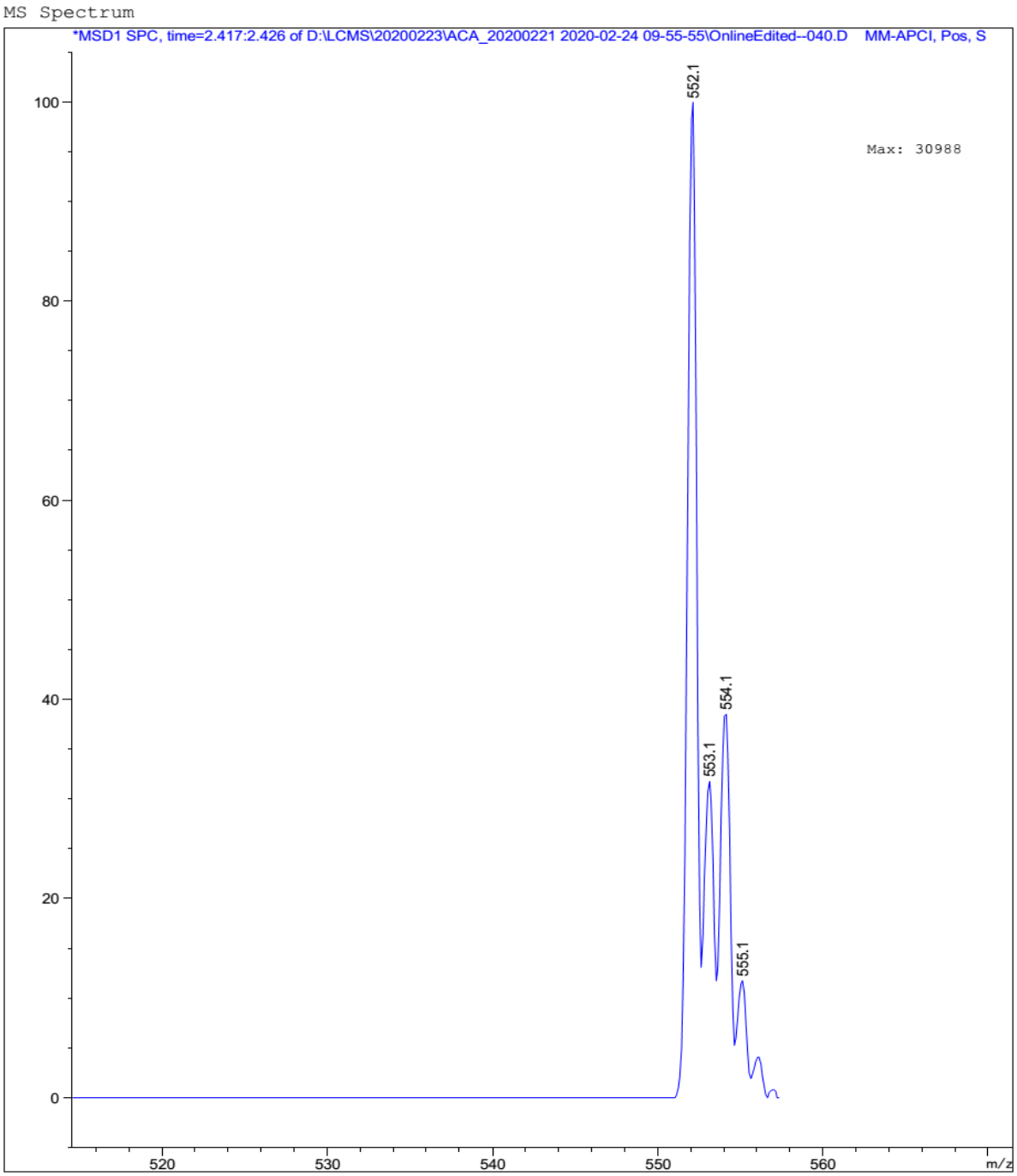
S89: HPLC-MS of **16**



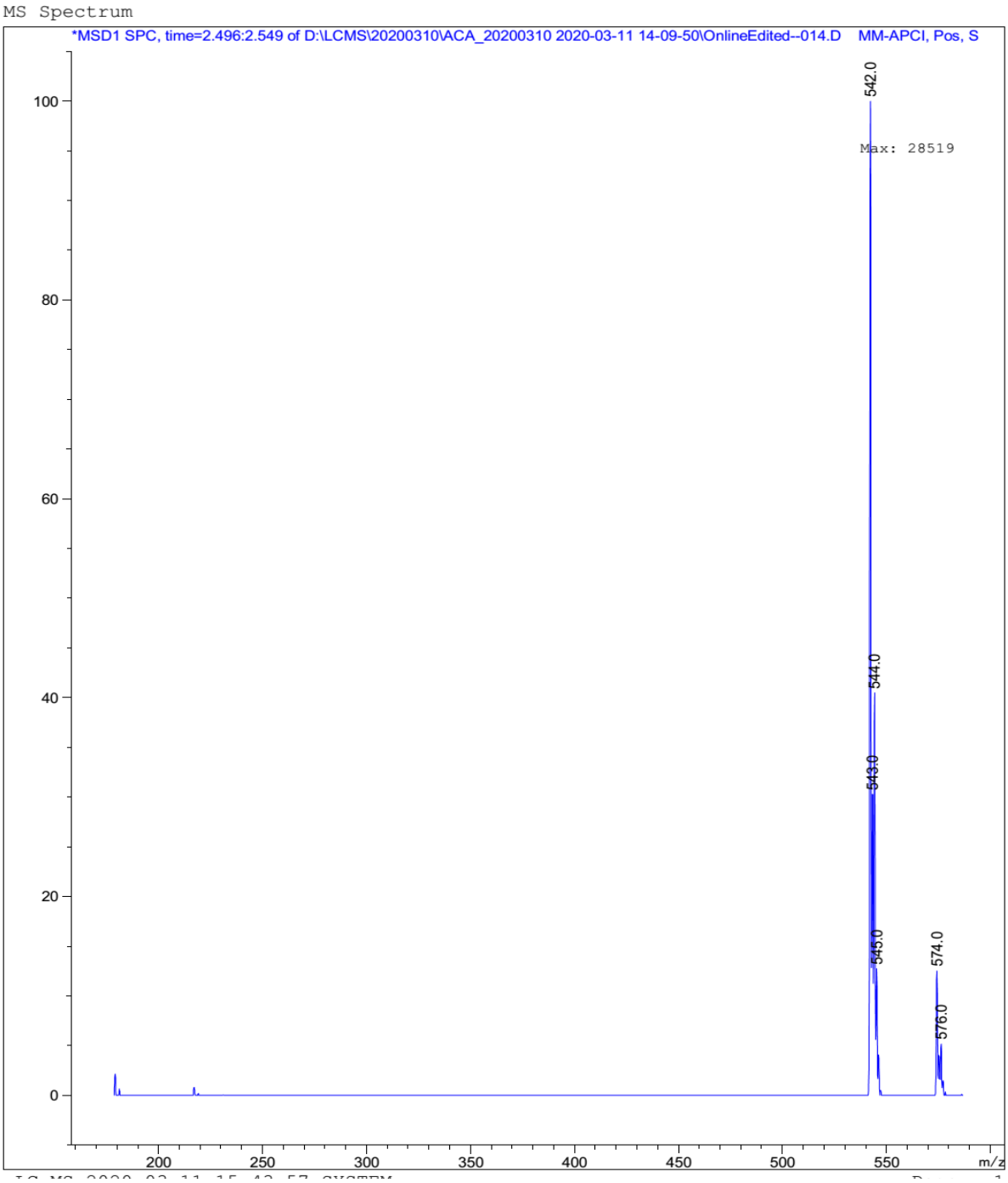
S90: HPLC-MS of **17**



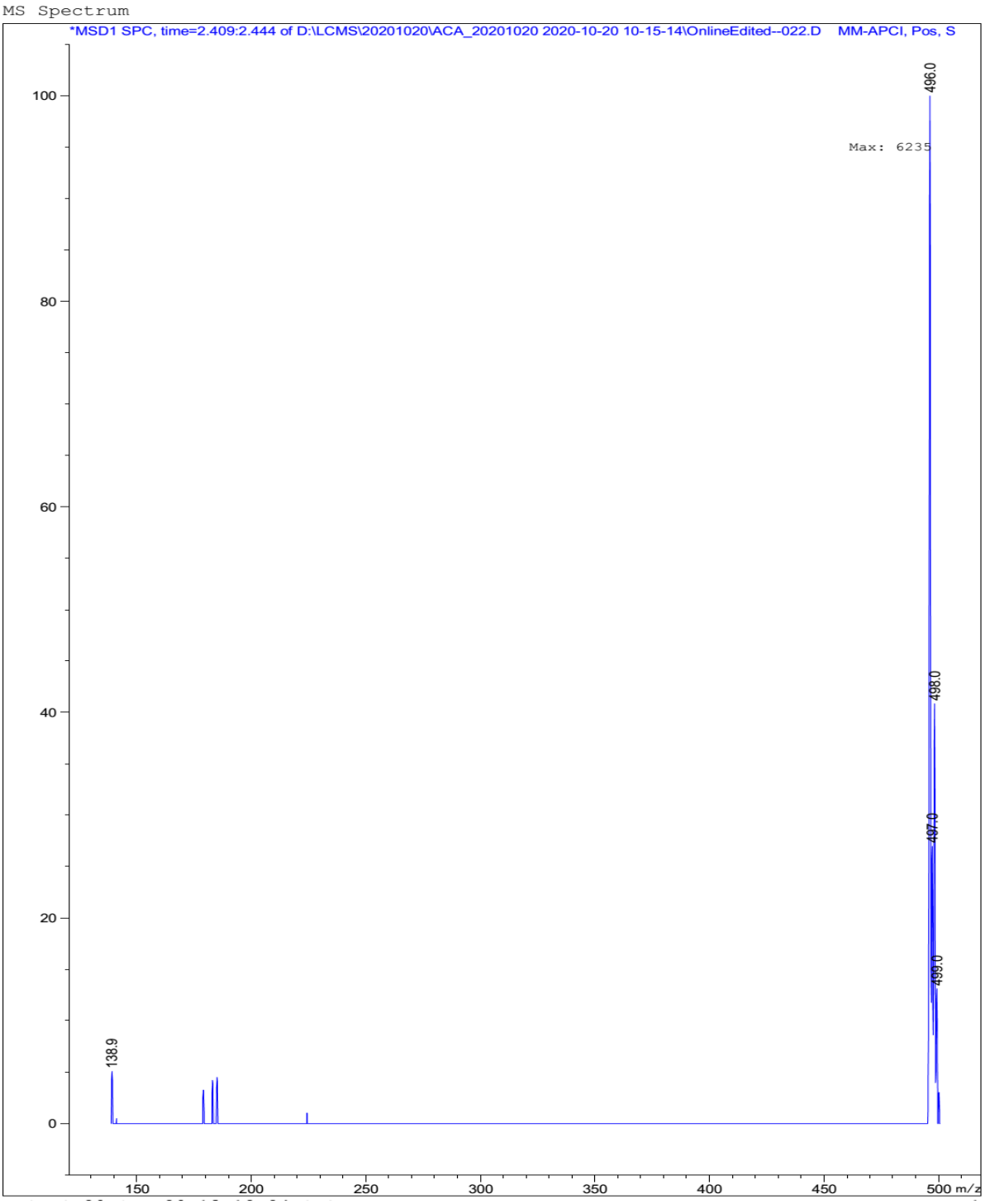
S91: HPLC-MS of **18**



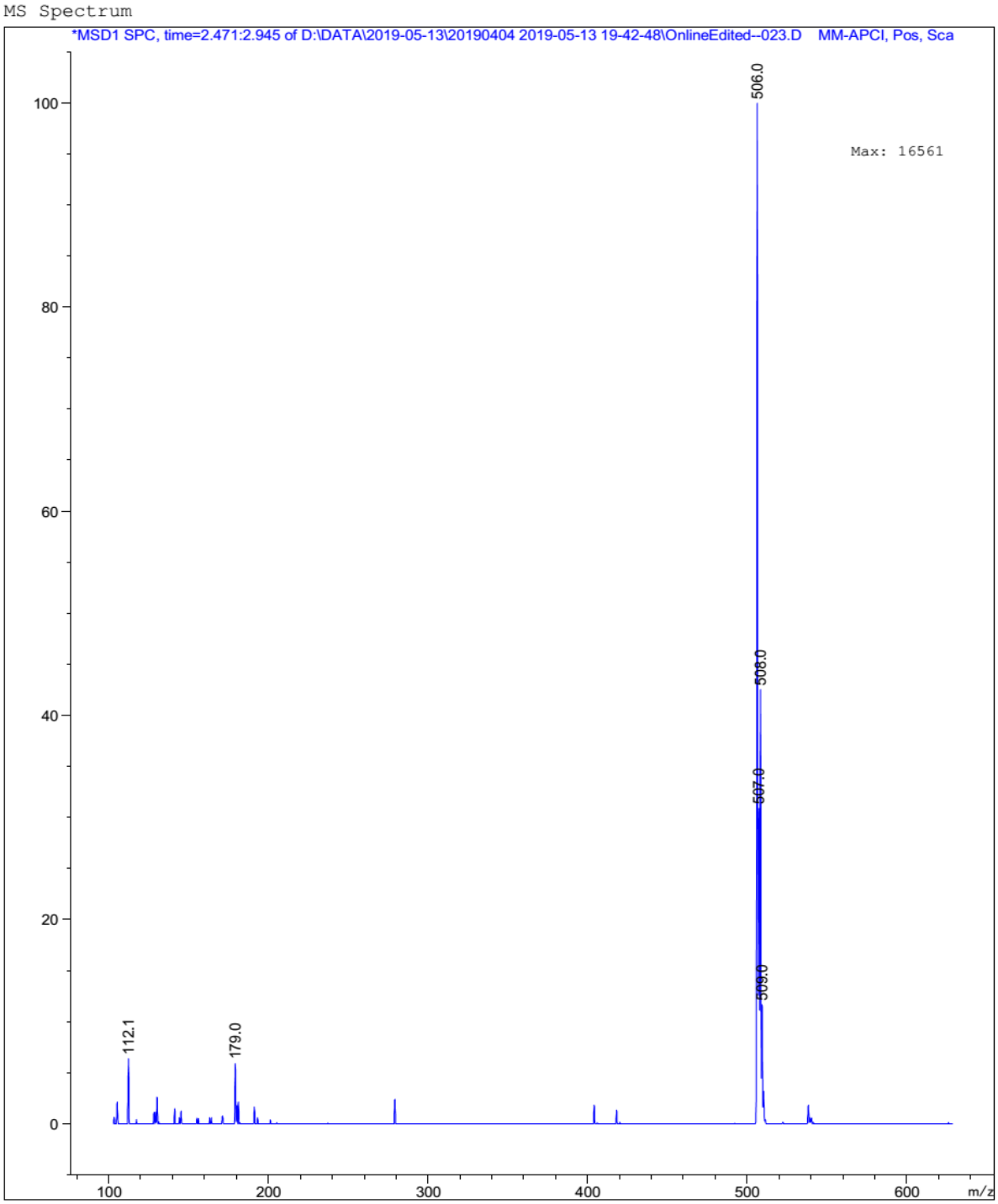
S92: HPLC-MS of **19**



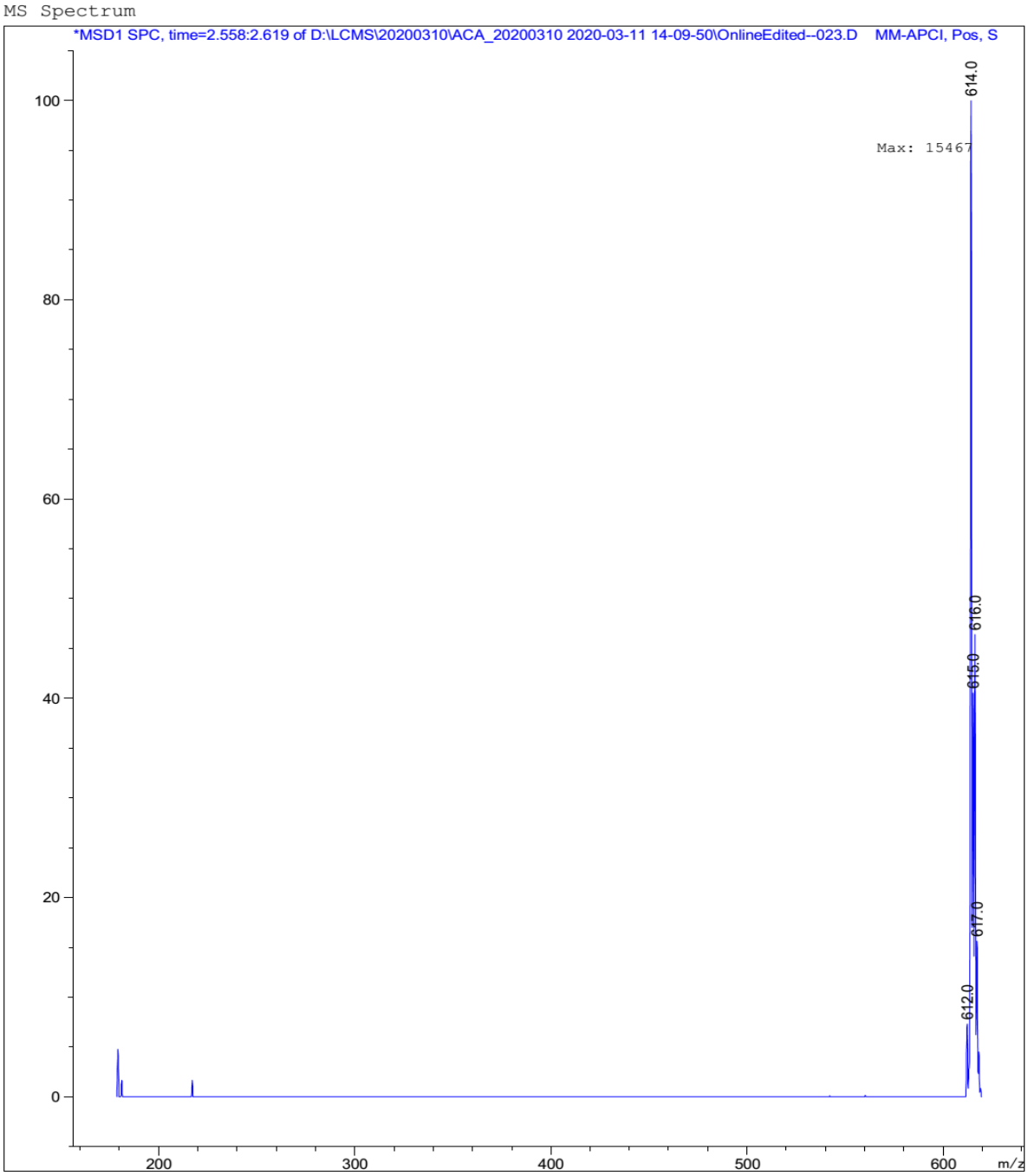
S93: HPLC-MS of **20**



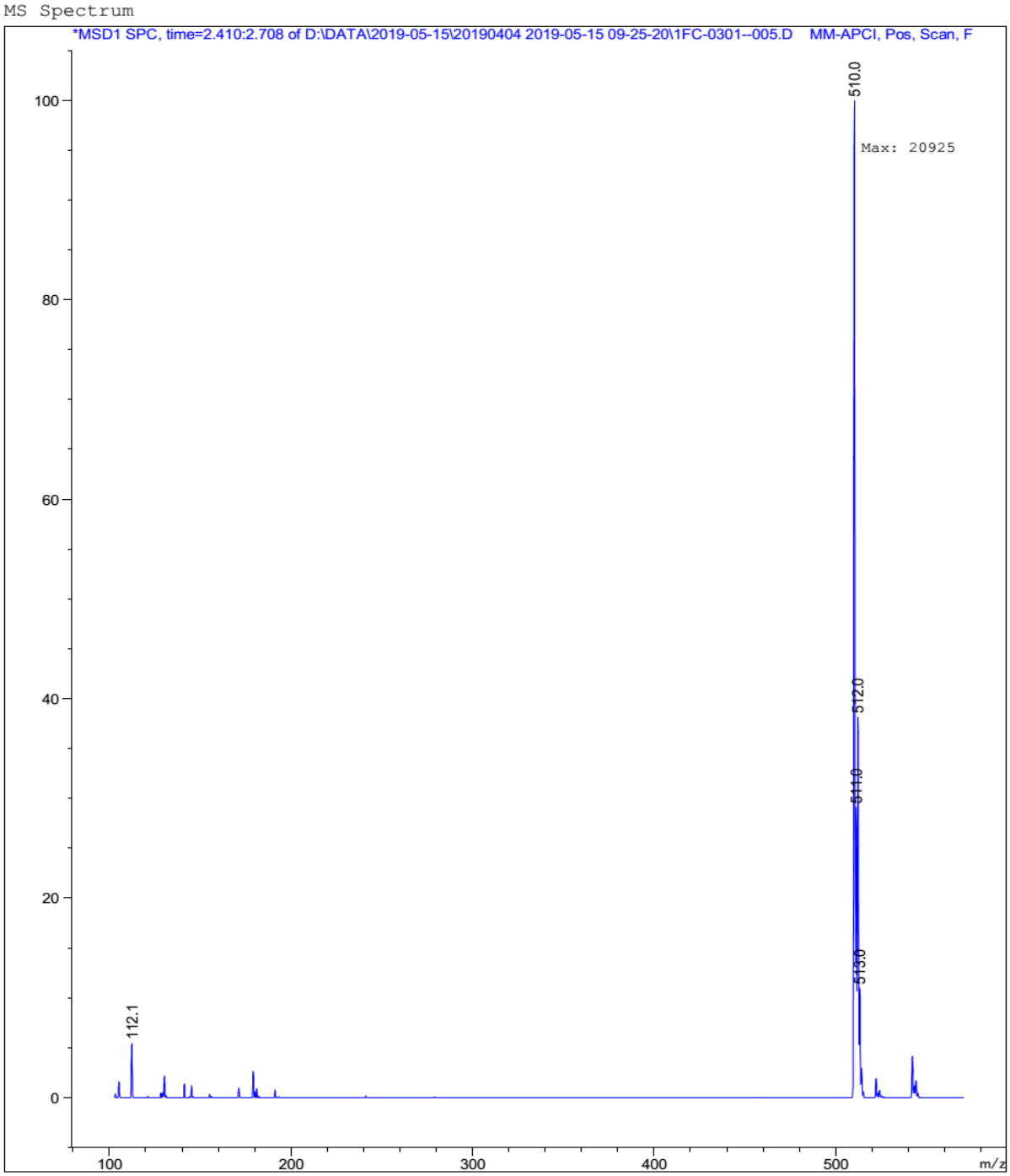
S94: HPLC-MS of **21**



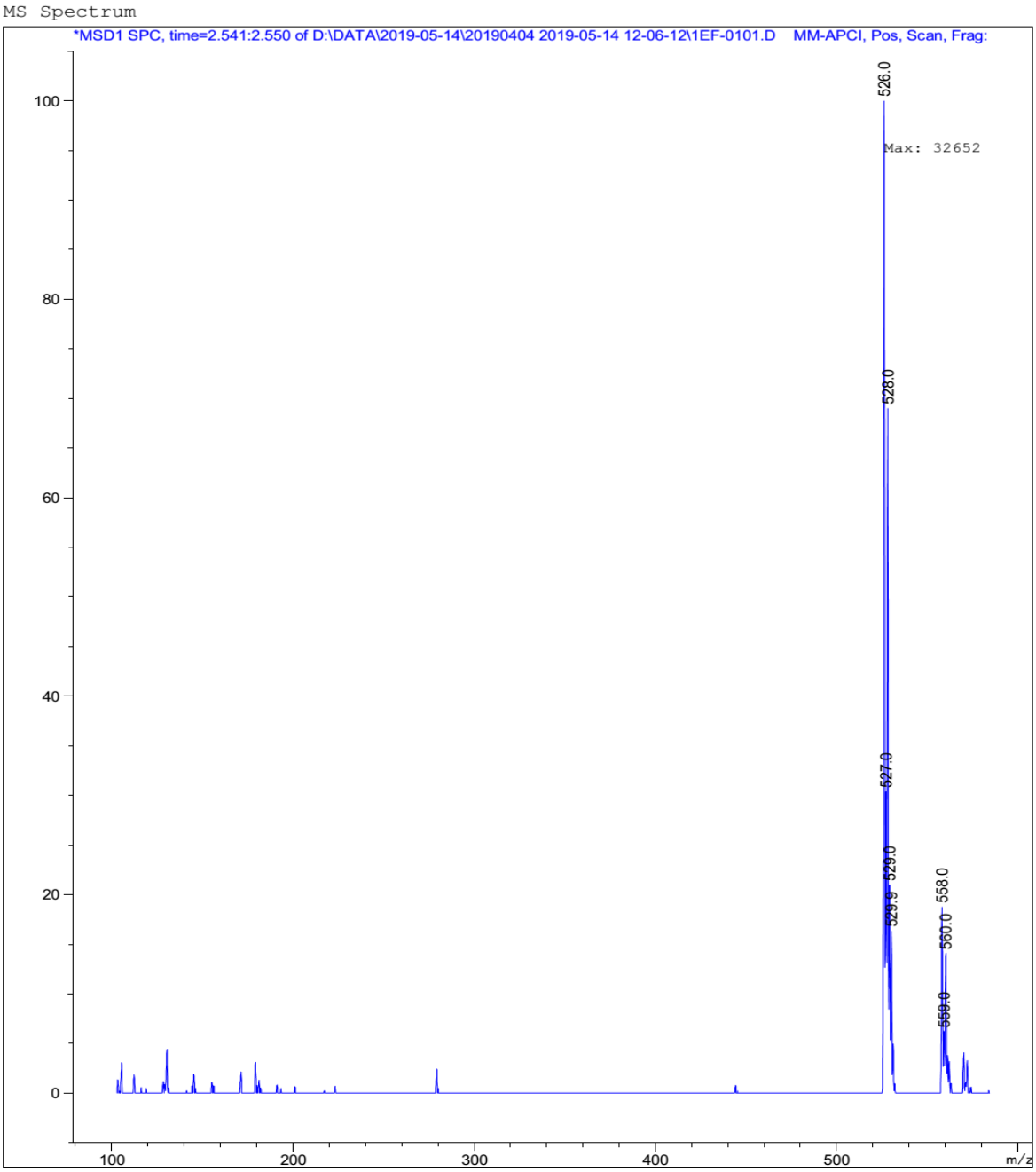
S95: HPLC-MS of **22**



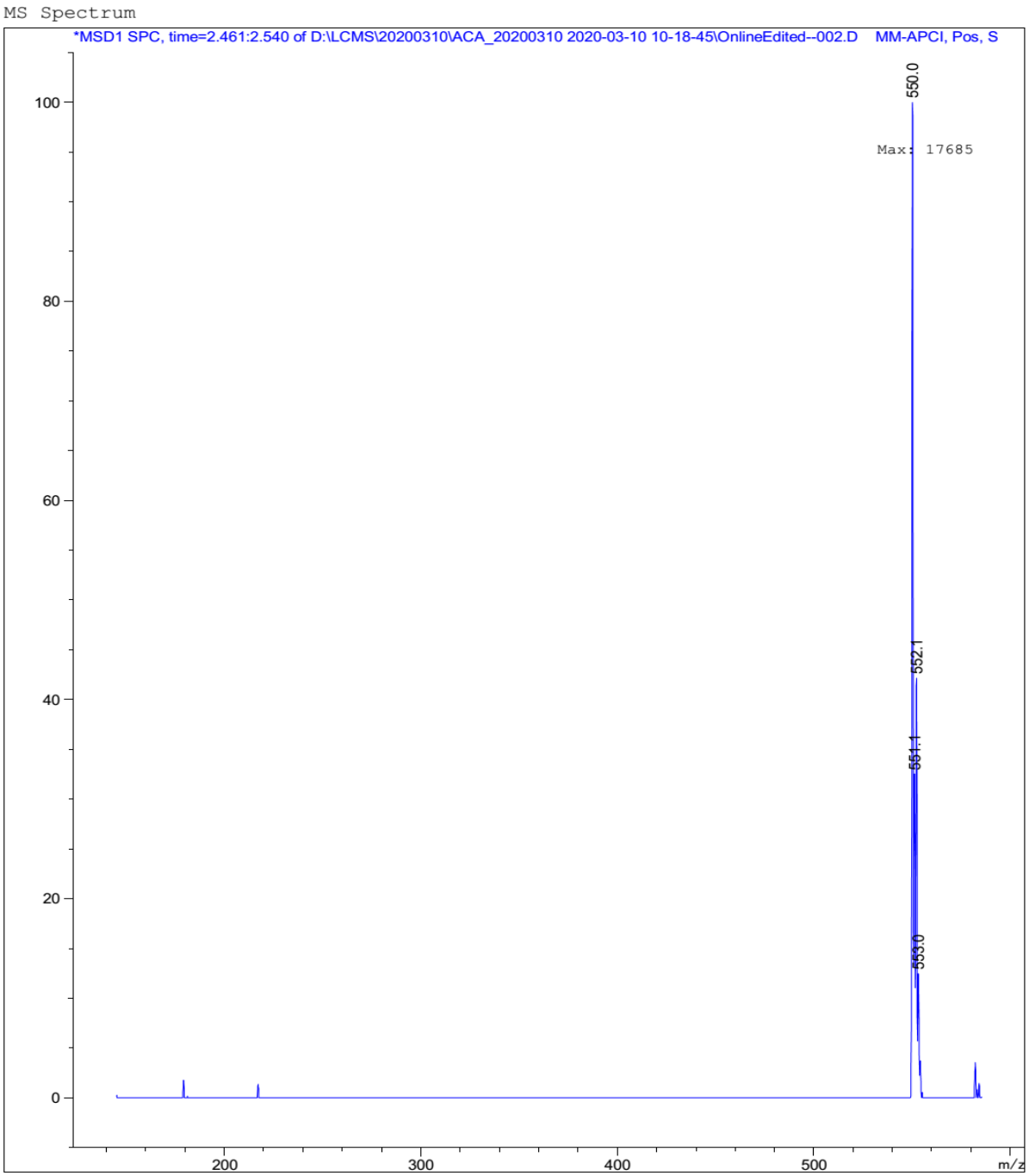
S96: HPLC-MS of **23**



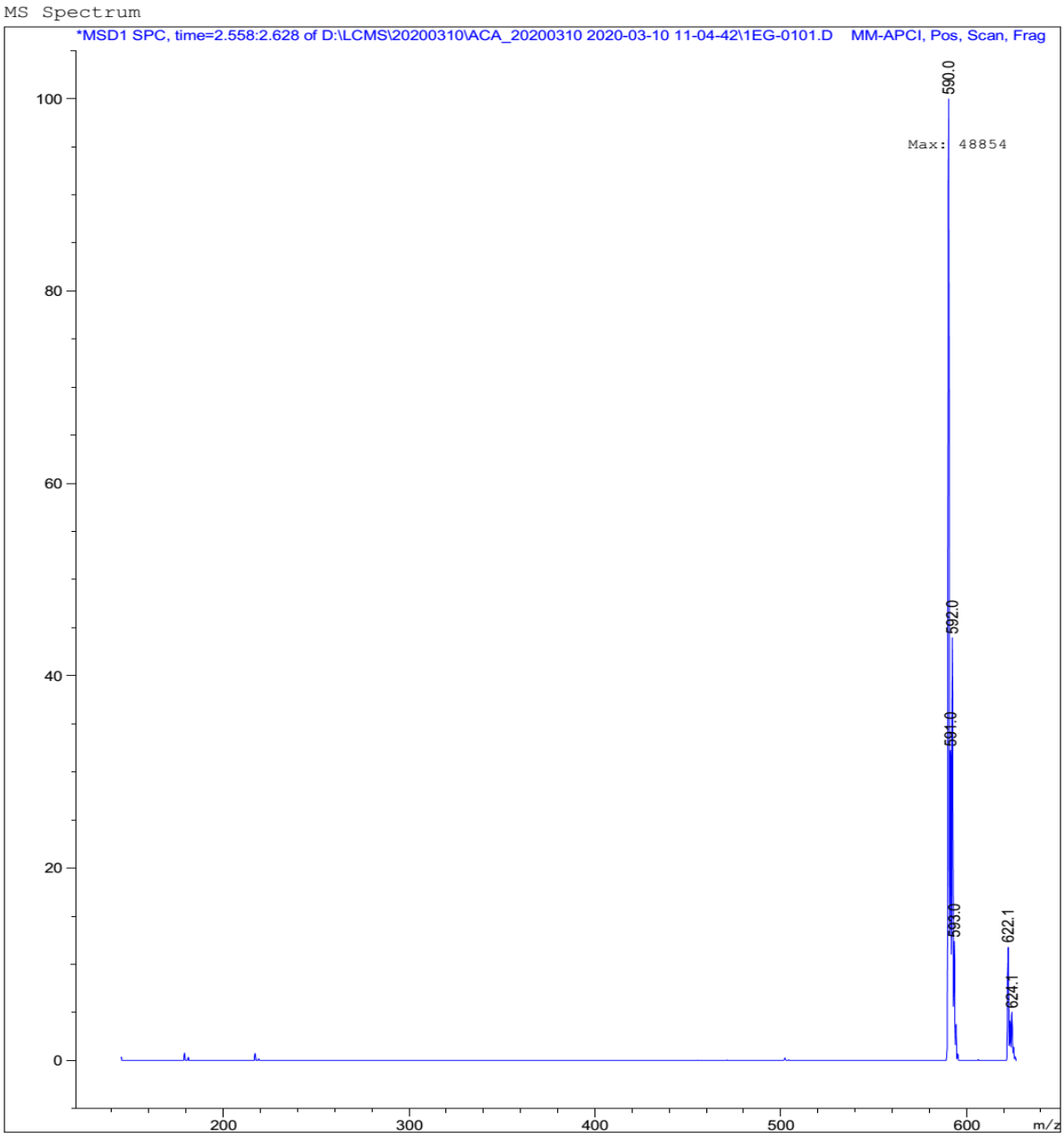
S97: HPLC-MS of **24**



S98: HPLC-MS of **25**



S99: HPLC-MS of **26**



S100: HPLC-MS of **27**