Electronic Supplementary Material (ESI) for Organic & Biomolecular Chemistry.

Table of content

1. Materials and methods S2

1.1. Nuclear Magnetic Resonance and High-Resolution Mass Spectrometry analyses S2

1.2. High Performance Liquid Chromatography S2

1.3. Electronic absorption, fluorescence emission S2

1.4. Circular dichroism, circularly polarized luminescence S3

2. Method for chemical synthesis S3

2.1. Monomer synthesis S3

2.2. Oligomer synthesis and characterization S8

2.2.1. General procedure for oligomer synthesis S8

2.2.2. Oligomer characterization S10

3. NMR, Mass spectra and Chromatograms S13

1. Material and Methods

1.1. Nuclear Magnetic Resonance and High-Resolution Mass Spectrometry analyses

1D NMR spectra of monomers were recorded on a Bruker Avance II NMR spectrometer (Bruker BioSpin) operating at 300.18 MHz for ^{1}H observation and 75.48 MHz for ^{13}C observation equipped with a 5mm dual BBFO probe with gradient. 1D NMR spectra of oligomers were recorded on a Bruker Avance NEO NMR spectrometer (Bruker BioSpin) operating at 700.15 MHz for ^{1}H observation equipped with a 5mm TXI probe with gradient. All NMR experiments were performed at 273 K. Chemical shift values are given in ppm with reference to residual solvent signals: $CDCl_3$ (δ = 7.26 and 77.2), DMSO-d_6 (δ=2.50 and 39.4) or to the reference signal of TMS (δ = 0.00 for ^{1}H) from a 10 µM solution of 3-(trimethylsilyl)-1-propanesulfonic acid sodium salt (TSP-d_4) in H_2O/D_2O (95/5; *v*/*v*). ^{1}H NMR in H_2O/D_2O (95/5) were performed with water suppression using an excitation sculpting element from the Bruker pulse program library (noesyesfpgpphrs).

HRMS characterization of monomers was performed on an Agilent Technologies 6230 TOF LC/MS spectrometer. The instrument is equipped with an ESI source and experiment were recorded in positive mode. The spray voltage was maintained at 3500 V and the capillary temperature was set at 300 °C. Samples were introduced by injection through a 20 µL sample loop into a 600 µL.min^{-1} flow of acetonitrile from the LC pump. HRMS characterizations of oligomers were performed on a Thermo Scientific Exactive Orbitrap spectrometer. The instrument is equipped with an ESI source and experiment were recorded in positive or negative mode. The spray voltage was maintained at 3500 V and capillary temperature set at 220 °C. Sample were injected in the ESI source using a 250 µL Hamilton syringe at 6 µL.min^{-1} flow.

1.2. High Performance Liquid Chromatography

HPLC analyses and purification were performed on reverse phase C18 column on Jasco Extrema analytical and preparative systems. Mobile phases were composed of milli-Q water + 0.1% TFA (solvent A) and Acetonitrile + 0.1% TFA (solvent B) for monomers and cationic oligomers. And milli-Q water + triethylammonium acetate buffer (pH = 8.7, solvent A') and Acetonitrile + triethylammonium acetate buffer (pH = 8.7, solvent B') for anionic oligomers. Analyses were done using the following gradient: (0 min): 95 % A, 5 % B then (2 min): 95 % A, 5 % B then (12 min): 0 % A, 100 % B then (15 min): 0 % A, 100 % B.

1.3. Electronic absorption and fluorescence emission

UV-visible absorption spectra were recorded on a UV-1650PC Shimadzu spectrophotometer using a 1 cm pathlength quartz cuvette.

Steady-state emission spectra were recorded on a Horiba Jobin-Yvon Fluorolog-3 spectrofluorometer fitted with a PMT detector and exciting with a 450 W Xe-lamp across a double monochromator and were corrected for instrumental response. The fluorescence and reaction quantum yield were determined in air-equilibrated solutions as follows. The luminescence quantum yield (Φ) was calculated by using the equation $\Phi = \Phi_r(I/I_r)(A_r/A)(\eta^2/\eta_r^2)$ in which Φ_r refers to the quantum yield reference, I is the integrated emission intensity, A is the absorbance at the excitation wavelength and η is the refractive index of the solvent.[1] An optically dilute solution of quinine sulphate (λ_{exc} = 365 nm) in 1N sulphuric acid was used as the standard, Φ_f = 0.54.

1.4. Circular dichroism and circular polarized luminescence

[1] D. E. Eaton, Handbook of Organic Photochemistry, Vol 1; J. C. Scaiano, Ed.; CRC : Boca Raton, FL, **1989**.

CD spectra were recorded on a JASCO J-815 spectropolarimeter using a 1 cm pathlength quartz cuvette.

CPL spectra were recorded on a CPL-300 spectrophotometer using a 1 cm pathlength quartz cuvette.

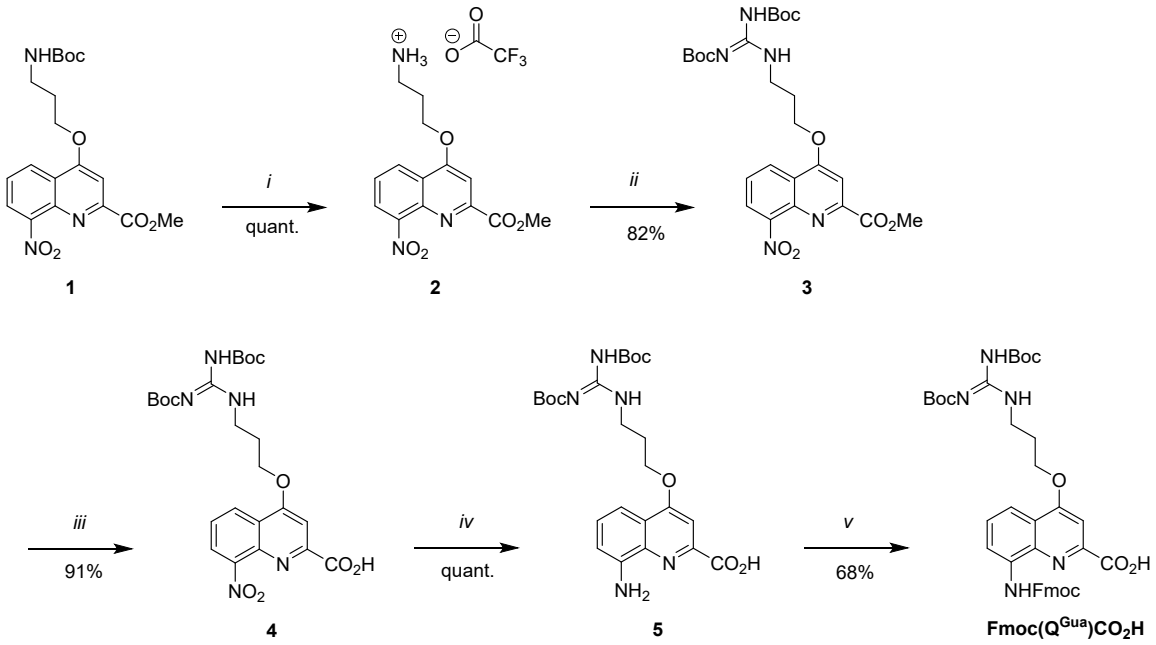
2. Methods for chemical synthesis

Commercial reagents were purchased from Sigma-Aldrich, Alfa-Aesar or TCI and used without further purification. Low-loading ProTide resin was purchased from CEM. Chloroform ($CHCl_3$), Triethylamine (TEA) and *N*,*N*-diisopropylethylamine (DIEA) were distilled over calcium hydride prior to use. Dry organic solvents: Tetrahydrofuran (THF) and dichloromethane (DCM), used for solution and solid phase synthesis, were dispensed from a solvent purification system that passes solvents through packed column of dry neutral alumina. Milli-Q water was delivered from a PureLab Prima 7/15/20 system.

2.1. Monomer synthesis

The synthesis of **Fmoc(Q^{Orn})CO$_2$H** and **Fmoc(Q^{Pho})CO$_2$H** were performed following reported procedure.[2,3]

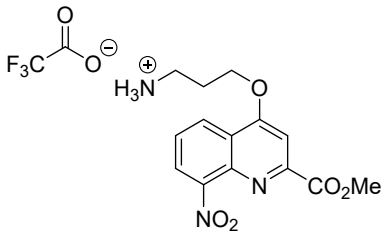
Synthesis of ***Fmoc(Q^{Gua})CO$_2$H***.



Scheme S1: **Fmoc(Q^{Gua})CO$_2$H** monomer synthesis. *i*) DCM/TFA, *ii*) *N,N'*-Bis(*tert*-butoxycarbonyl)-1H-pyrazole-1-carboxamidine, DIEA, DCM, *iii*) NaOH, THF/H_2O, *iv*) Pd/C, EtOAc, *v*) Fmoc chloride, $NaHCO_3$, Dioxane/H_2O.

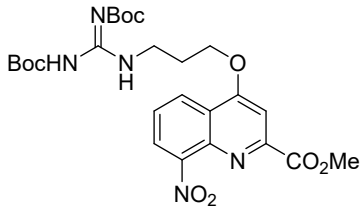
[2] Vallade M., Sai Reddy P., Fischer L., Huc I., Enhancing aromatic foldamer helix dynamics to probe interactions with protein surfaces, *Eur. J. Org. Chem*., **2018**, 5489.

[3] Corvaglia V., Carbajo D., Prabhakaran P., Ziach K., Mandal P.K., Dos Santos V., Legeay C., Vogel R., Parissi V., Pourquier P., Huc I., Carboxylate-functionalized foldamer inhibitors of HIV-1 integrase and Topoisomerase 1: artificial analogues of DNA mimic proteins, *Nucleic Acids Res*., **2019**, *47*, 5511.



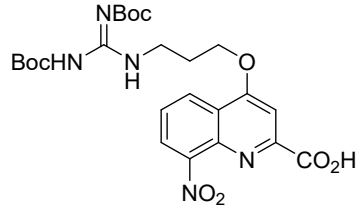
2

*Monomer **2**.* Compound **1** (3 g, 7.4 mmol) was dissolved in 20 mL of dichloromethane/TFA (1:1; *v*/*v*) and stirred for 1.5 h at room temperature. Solvents were evaporated under reduced pressure and the excess of TFA was co-evaporated three times with toluene. The resulting residue was frozen in acetonitrile and freeze-dried. Compound **2** was obtained as a yellow solid (3.1g, quantitative yield).
^{1}H NMR (300MHz, DMSO-d_6): δ 8.50 (dd, 1H, $^{3}J_{H\text{-}H}$ = 8.4 Hz and $^{4}J_{H\text{-}H}$ = 1.3 Hz), 8.36 (dd, 1H, $^{3}J_{H\text{-}H}$ = 7.4 Hz and $^{4}J_{H\text{-}H}$ = 1.3 Hz), 7.75-7.90 (m, 3H), 7.68 (s, 1H), 4.50 (t, 2H, $^{3}J_{H\text{-}H}$ = 5.9 Hz), 3.95 (s, 3H), 3.10 (t, 2H, $^{3}J_{H\text{-}H}$ = 7.0 Hz), 2.20 (q, 2H, $^{3}J_{H\text{-}H}$ = 6.4 Hz). ^{13}C NMR (75 MHz, DMSO-d_6) δ 165.3, 162.7, 151.4, 148.8, 139.2, 127.5, 126.2, 125.0, 122.7, 103.2, 67.1, 53.5, 36.7, 26.9. HRMS (ESI^{+}) m/z 306.1086 $[M]^{+}$ (calc. 306.1084 for $C_{14}H_{16}N_3O_5^{+}$).



3

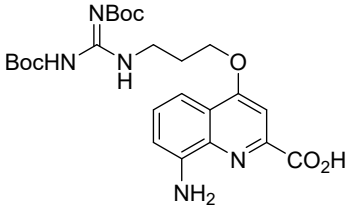
*Monomer **3**.* Compound **2** (2 g, 5 mmol, 1 equiv.) was suspended in 20 mL of dichloromethane. N,N'-bis(*tert*-butoxycarbonyl)-1H-pyrazole-1-carboxamidine (3 g, 10 mmol, 2 equiv.) and DIEA (5 mL, 30 mmol, 6 equiv.) were added. The reaction mixture was stirred overnight. After evaporation of the solvent under reduced pressure the crude oil was purified by silica gel chromatography (cyclohexane/ethyl acetate 9:1; *v*/*v*) yielding **3** as a white solid (2.26 g, 82 % yield).
^{1}H NMR (300MHz, $CDCl_3$): δ 11.53 (s, 1H), 8.50-8.57 (m, 2H), 8.13 (dd, 1H), $^{3}J_{H\text{-}H}$ = 7.4Hz and $^{4}J_{H\text{-}H}$ = 1.3 Hz), 7.63-7.71 (m, 2H), 4.44 (t, 2H, $^{3}J_{H\text{-}H}$ = 6.0 Hz), 4.06 (s, 3H), 3.77 (td, 2H, $^{3}J_{H\text{-}H}$ = 6.4 Hz and $^{3}J_{H\text{-}H}$ = 5.6 Hz), 2.32 (qu, 2H, $^{3}J_{H\text{-}H}$ = 6.4 Hz), 1.45 (s, 18H). ^{13}C NMR (75 MHz, $CDCl_3$) δ 165.6, 163.5, 162.5, 156.4, 153.4, 151.3, 148.4, 140.1, 126.6, 126.0, 125.2, 123.2, 102.2, 83.4, 79.5, 67.3, 53.4, 38.0, 28.6, 28.3, 28.1, 26.9. HRMS (ESI^{+}) m/z 548.2354 $[M+H]^{+}$ (calc. 548.2351 for $C_{25}H_{34}N_5O_9^{+}$).



4

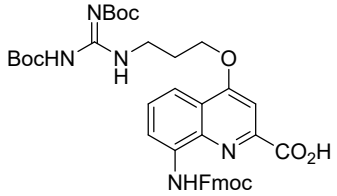
*Monomer **4**.* Compound **3** (2.3 g, 4.1 mmol, 1 equiv.) was dissolved in THF (50 mL) and NaOH (470 mg, 10.3 mmol, 2.5 equiv.) dissolved in 10 mL of water was added. The reaction medium was vigorously stirred at room temperature for 30 min. Then water was added (20 mL) and the mixture was acidified with a 5 % citric acid solution (*m*/*v*). The aqueous phase was extracted with dichloromethane

and washed with water and brine. The organic layers were combined, dried with $MgSO_4$, filtered and evaporated under reduced pressure yielding **4** as a white solid (2.0 g, 91 % yield).
^{1}H NMR (300MHz, $CDCl_3$): δ 11.53 (s, 1H), 8.60 (dd, 1H, $^3J_{H-H}$ = 8.5 Hz and $^4J_{H-H}$ = 1.4 Hz), 8.54 (t, 1H, $^3J_{H-H}$ = 5.3 Hz), 8.26 (dd, 1H, $^3J_{H-H}$ = 7.6 Hz and $^4J_{H-H}$ = 1.4 Hz), 7.71-7.80 (m, 2H), 4.49 (t, 2H, $^3J_{H-H}$ = 5.9 Hz), 3.78 (td, 2H, $^3J_{H-H}$ = 6.4 Hz and $^3J_{H-H}$ = 5.3 Hz), 2.34 (qu, 2H, $^3J_{H-H}$ = 6.3 Hz), 1.50 (s, 9H), 1.47 (s, 9H). ^{13}C NMR (75 MHz, $CDCl_3$) δ 164.0, 163.6, 163.5, 156.5, 153.4, 149.4, 147.1, 138.4, 127.4, 126.6, 126.2, 123.6, 100.3, 83.4, 79.5, 67.9, 37.8, 28.6, 28.2, 28.1. HRMS (ESI^+) m/z 534.2207 $[M+H]^+$ (calc. 534.2195 for $C_{24}H_{32}N_5O_9^+$).



5

*Monomer **5***. Compound **4** (2 g, 3.8 mmol, 1 equiv.) was dissolved in ethyl acetate (80 mL) and flushed with N_2 gas. Pd/C (10 % *w/w*, 200 mg) was added, and the reaction mixture was vigorously stirred overnight at 40 °C under H_2 atmosphere. Dichloromethane was added and the mixture was filtered over celite. Solvent were evaporated under reduced pressure yielding **5** as a yellow solid (1.9 g, quantitative yield).
^{1}H NMR (300 MHz, $CDCl_3$): δ 11.53 (s, 1H), 8.53 (t, 1H, $^3J_{H-H}$ = 4.6 Hz), 7.57-7.63 (m, 2H), 7.44 (t, 1H, $^3J_{H-H}$ = 7.7 Hz), 7.04 (dd, 1H, $^3J_{H-H}$ = 7.6 Hz and $^4J_{H-H}$ = 1.0 Hz), 4.38 (t, 2H, $^3J_{H-H}$ = 5.8 Hz), 3.75 (td, 2H, $^3J_{H-H}$ = 6.5 Hz and $^3J_{H-H}$ = 5.7 Hz), 2.29 (qu, 2H, $^3J_{H-H}$ = 6.4 Hz), 1.50 (s, 18H). ^{13}C NMR (75 MHz, $CDCl_3$) δ 164.7, 163.6, 163.5, 156.4, 153.4, 144.6, 143.6, 136.5, 129.1, 123.3, 112.3, 110.6, 98.9, 83.3, 79.4, 66.9, 38.0, 28.7, 28.3, 28.1. HRMS (ESI^+) m/z 504.2454 $[M+H]^+$ (calc. 504.2453 for $C_{24}H_{33}N_5O_7^+$).

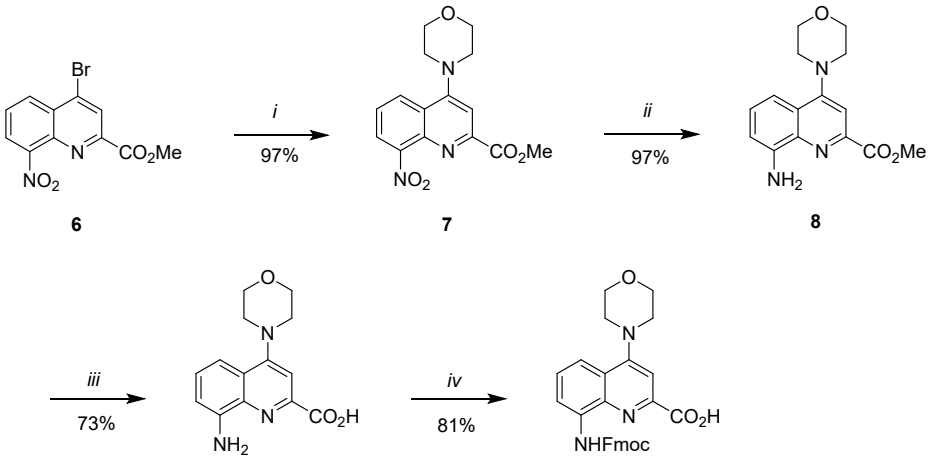


Fmoc(Q^{Gua})CO_2H

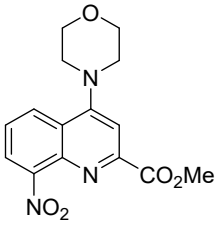
*Monomer **Fmoc(Q^{Gua})CO_2H***. Compound **5** (1.9 g, 3.7 mmol, 1 equiv.) was dissolved in dioxane (67 mL) then $NaHCO_3$ (6.7 g, 79.7 mmol, 21 equiv.) dissolved in 67 mL of water was added. Fmoc-Cl (1.2 g, 4.8 mmol, 1.3 equiv.) in 22 mL of dioxane was added dropwise and the reaction mixture was stirred overnight at room temperature. Water was added and the mixture was acidified with citric acid 5 % (*m*/*v*). to pH = 3-4. Dichloromethane was added and the aqueous phase was extracted with dichloromethane and washed with water and brine. The organic layers were combined, dried with $MgSO_4$, filtered and evaporated under reduced pressure. The crude solid was purified by silica gel chromatography (dichloromethane/MeOH) giving the title compound as a yellow solid (1.8 g, 68 % yield).
^{1}H NMR (300MHz, DMSO-d_6): δ 13.51 (s, 1H), 11.47 (s, 1H), 10.45 (s, 1H), 8.50 (t, 1H, $^3J_{H-H}$ = 5.3 Hz), 8.33 (brs, 1H), 7.93 (d, 1H, $^3J_{H-H}$ = 7.4 Hz), 7.76-7.86 (m, 3H), 7.54-7.63 (m, 2H), 7.44 (t, 2H, $^3J_{H-H}$ = 7.3 Hz), 7.36 (td, 2H, $^3J_{H-H}$ = 7.3 Hz and $^4J_{H-H}$ = 1.1 Hz), 4.61 (d, 2H, $^3J_{H-H}$ = 6.6 Hz), 4.37-4.47 (m, 3H), 3.57 (q, 2H, $^3J_{H-H}$ = 6.3 Hz), 2.15 (qu, 2H, $^3J_{H-H}$ = 5.9 Hz), 1.43 (s, 9H), 1.33 (s, 9H). ^{13}C NMR (75 MHz,

$CDCl_3$) δ 165.1, 163.5, 156.5, 153.3, 146.0, 143.7, 141.4, 137.5, 134.5, 128.7, 127.9, 127.3, 124.9, 122.4, 120.1, 117.3, 115.5, 100.0, 83.4, 79.5, 67.4, 67.1, 47.1, 38.1, 28.6, 28.3, 28.0. HRMS (ESI^+) m/z 726.3133 $[M+H]^+$ (calc. 726.3134 for $C_{39}H_{43}N_5O_9^+$).

Synthesis of ***Fmoc(Q^{Mor})CO$_2$H***.



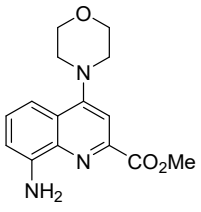
Scheme S2: **Fmoc(Q^{Mor})CO$_2$H** monomer synthesis. *i*) Morpholine, TEA, THF; *ii*) Pd/C, EtOAc; *iii*) KOH, Ddioxane; *iv*) Fmoc chloride, $NaHCO_3$, dioxane/H_2O.



7

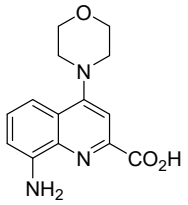
Monomer 7. Compound **6** (300 mg, 0.97 mmol, 1 equiv.) was introduced in a Schlenk flask under nitrogen and dissolved in a mixture of dry triethylamine (2.5 mL) and dry THF (5 mL). Freshly distilled morpholine (1.42 mL, 16.7 mmol, 17 equiv.) was added to the solution and the reaction was allowed to stir at 85 °C overnight. After evaporation of the solvent, the residue was dissolved in dichloromethane, washed with 5 % NH_4Cl solution (*m/v*) and pure water. The organic phases were dried over $MgSO_4$, filtered and the solvents were removed under reduced pressure to dryness to obtain **7** as a yellow solid (300 mg, 97 % yield).

^{1}H NMR ($CDCl_3$, 300 MHz) δ 8.24 (dd, 1H, $^3J_{H\text{-}H}$ = 8.8 Hz, $^4J_{H\text{-}H}$ = 1.4 Hz), 8.03 (dd, 1H, $^3J_{H\text{-}H}$ = 7.3 Hz, $^4J_{H\text{-}H}$ = 1.4 Hz), 7.75 (s, 1H), 7.63 (m, 1H), 4.03 (s, 3H), 4.01 (m, 4H), 3.32 (m, 4H). ^{13}C NMR ($CDCl_3$, 75 MHz) δ 165.9, 158.2, 150.7, 140.9, 127.7, 125.8, 125.3, 124.3, 110.2, 66.8, 53.5, 52.9. HRMS (ESI^+) m/z 340.0904 $[M+Na]^+$ (calc. 340.0903 for $C_{15}H_{15}O_5N_3Na$).



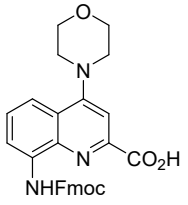
8

*Monomer **8***. To a solution of compound **7** (300 mg, 0.97 mmol, 1 equiv.) in degassed EtOAc (45 mL), 10 % Pd/C (10% *w/w*, 30 mg) was added at RT. The flask was evacuated, filled with hydrogen (1 atm.) and the resulting mixture was stirred overnight at RT. The reaction was monitored by ^{1}H NMR until completion. The solution was filtered through celite and washed with dichloromethane. The filtrate was evaporated under reduced pressure and the residue dried under vacuum to yield monomer amine **8** as a yellow solid (270 mg, 97 % yield).
^{1}H NMR ($CDCl_3$, 300 MHz) δ 7.61 (s, 1H), 7.38-7.26 (m, 2H), 6.89 (dd, 1H, $^{3}J_{H-H}$ = 7.3 Hz, $^{4}J_{H-H}$ = 1.4 Hz), 5.18 (s, 2H), 4.02 (s, 3H), 3.98 (m, 4H), 3.27 (m, 4H). ^{13}C NMR ($CDCl_3$, 75 MHz) δ 166.6, 157.6, 146.0, 145.3, 139.0, 128.7, 125.0, 111.4, 110.2, 109.0, 67.0, 52.9, 52.6. HRMS (ESI^+) m/z 288.1340 $[M+H]^+$ (calc. 288.1343 for $C_{15}H_{18}O_3N_3^+$).



9

*Monomer **9***. Compound **8** (270 mg, 0.96 mmol, 1 eq.) was dissolved in a solvent mixture of dioxane/H_2O (14 mL, 6:1, *v:v*). KOH (161 mg, 2.88 mmol, 3 equiv.) was added to this mixture and the resulting slurry was vigorously stirred for 5 hours at RT. The excess of KOH was subsequently quenched by the addition of 5 % citric acid aqueous solution (*m/v*). After evaporation of dioxane under reduced pressure, the aqueous phase was extracted with dichloromethane. The organic layers were washed with water, dried over MgSO4 and evaporated to dryness to obtain **9** as an orange solid (193 mg, 73 % yield).
^{1}H NMR ($CDCl_3$, 300 MHz) δ 7.70 (s, 1H), 7.40-7.34 (m, 2H), 6.96 (dd, 1H, $^{3}J_{H-H}$ = 7.3 Hz, $^{4}J_{H-H}$ = 1.4 Hz), 3.98 (m, 4H), 3.33 (m, 4H). ^{13}C NMR ($CDCl_3$, 75 MHz) δ 144.0, 137.2, 128.8, 112.3, 111.6, 106.8, 89.3, 66.8, 52.4. HRMS (ESI^+) m/z 274.1183 $[M+H]^+$ (calc. 274.1186 for $C_{14}H_{16}O_3N_3^+$).



Fmoc(Q^{Mor})CO_2H

*Monomer **Fmoc(Q^{Mor})CO_2H***. Monomer **9** (193 mg, 0.67 mmol, 1 equiv.) was dissolved in a solvent mixture with a solution of 10 % $NaHCO_3$ and dioxane (12.5 mL, 4:1; *v:v*). A solution of Fmoc chloride (207 mg, 0.80 mmol, 1.2 equiv.) in dioxane (10 mL) was added dropwise to the solution at 0 °C and the reaction mixture was stirred at 0 °C for 1 h. Then the reaction was allowed to proceed overnight at RT. The mixture was poured into water (60 mL) and a solution of 1M HCl was added until pH = 2. The aqueous phase was extracted with dichloromethane and the organic layers were washed with water, dried over $MgSO_4$ and evaporated. The residue was purified by chromatography (silica gel) eluting with dichloromethane/EtOAc (99:1; *v:v*) to obtain the title compound as a yellow solid (250 mg, 81 % yield).
^{1}H NMR ($CDCl_3$, 300 MHz) δ 7.75 (m, 3H), 7.64 (m, 3H), 7.50 (m, 2H), 7.39 (m, 2H), 7.29 (m, 2H), 4.63 (s, 2H), 4.36 (m, 1H), 3.98 (m, 4H), 3.31 (m, 4H). ^{13}C NMR ($CDCl_3$, 75 MHz) δ 158.5, 143.8, 141.3, 138.7, 128.2, 127.9, 127.3, 124.9, 124.3, 120.1, 116.9, 116.3, 108.4, 66.9, 66.8, 52.5, 50.2, 49.9, 49.6, 49.3, 49.0, 48.7, 48.4, 47.2. HRMS (ESI^+) m/z 518.1682 $[M+Na]^+$ (calc. 518.1686 for $C_{29}H_{25}O_5N_3Na$).

2.2. Oligomer SPS and characterization

2.2.1. General procedures for oligomer synthesis

Resin grafting. On *LL* ProTide resin (0.17 mmol.g^{-1}), the first Fmoc(Q^R)CO_2H monomer (3 equiv.) was grafted using CsI (5 equiv.) and DIEA (6 equiv.) in dry DMF. The reaction mixture was shaken vigorously overnight. After reaction, the resin was filtered and washed three times with DMF and three times with dichloromethane.

Fmoc deprotection. The grafted resin was washed twice with DMF, suspended in a 20 % piperidine in DMF solution (4 mL) and slowly stirred for 3 min. Resin was then filtered, washed twice with DMF and suspended again in a 20 % piperidine in DMF solution and stirred for 7 min. The resin was then filtered and washed three times with DMF and three times with dry THF.

In situ coupling procedure. The resin was suspended in dry THF and collidine (9 equiv.) was added. A solution of Fmoc(Q^X)CO_2H monomer (3 equiv.), PPh_3 (8 equiv.) and TCAN (9 equiv.) in dry $CHCl_3$ was added on the resin. The reaction was assisted by microwave irradiation (25W, 50 °C) for 15 min. and repeated once. After reaction, the resin was filtered and washed with dry THF and DMF.

Acid chloride coupling procedure. The resin was suspended in dry THF and DIEA (6 equiv.) was added. Fmoc(Q^X)COCl monomer (3 equiv., scheme S3) was dissolved in dry THF and added to the resin. The reaction was assisted by microwave irradiation (50W, 50 °C) for 15 minutes and repeated once. Resin was then filtered and washed with dry THF and DMF.

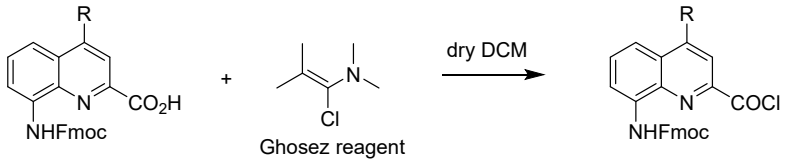
Resin cleavage. The resin was washed three times with DMF and three times with dichloromethane and was suspended in a solution of TFA/TIPS/H_2O, 95:2.5:2.5 (*v/v/v*). The mixture was vigorously stirred for 4 h. The resin was filtered and the filtrate was evaporated under reduced pressure. The residual solid was suspended in Et_2O and centrifuged at 4 °C for 5 min. Et_2O was removed and the yellow solid was dried under vacuum and then freeze-dried.

Preparative HPLC purification. *For sequences containing Q^{Orn} and Q^{Gua} monomers*. Crude compounds were purified using solvents A and B. The following gradient was used: (0 min): 95 % A, 5% B then (2 min): 95 % A, 5 % B then (22 min): 0 % A, 100 % B then (27 min): 0 % A, 100 % B. Collected fractions were analyzed by analytic HPLC and the relevant ones were combined and freeze-dried twice to remove the excess of TFA.

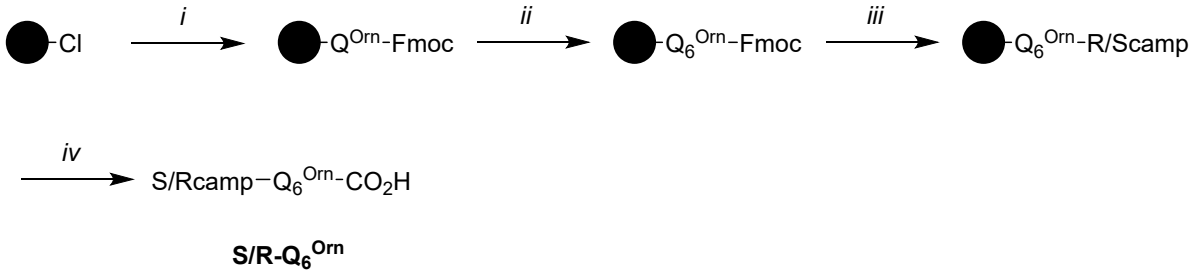
For sequences containing Q^{Pho} monomers. Crude compounds were purified using solvents A' and B'. The following gradient was used: (0 min): 95 % A, 5 % B then (2 min): 95 % A, 5 % B then (22 min): 0 % A, 100 % B then (27 min): 0 % A, 100 % B. Collected fractions were analyzed by analytic HPLC and the relevant ones were combined and freeze-dried twice to remove the excess of triethylammonium acetate.

Ion exchange procedure. *Only for sequences containing Q^{Pho} monomers*. Exchange of triethylammonium with ammonium cations was performed using Dowex 50W X4 (200-400 Mesh) resin. A 24 mL syringe containing a filter was filled with Dowex resin. The resin preparation/regeneration consisted in washing with 5 volumes of 2 M HCl, then MilliQ water until a neutral pH is reached, then 5 volumes of 2 M NH_4OAc (bio-grade) and then with 5 volumes of MilliQ water. The resin must stay wet all the time. Compounds were introduced as solutions in 300-500 µL of MilliQ water (followed by 2 washings with 300-500 µL of water). Compounds were eluted from the column by washing with 10 mL of MilliQ water. The collected solutions were freeze dried, then remaining solids were dissolved in a small amount of water, transferred to a small vial, and freeze-dried again to afford the ammonium salts of the oligomers. The absence of triethyl-ammonium was confirmed by ^{1}H NMR. After regeneration, as described above, the resin was used again.[4]

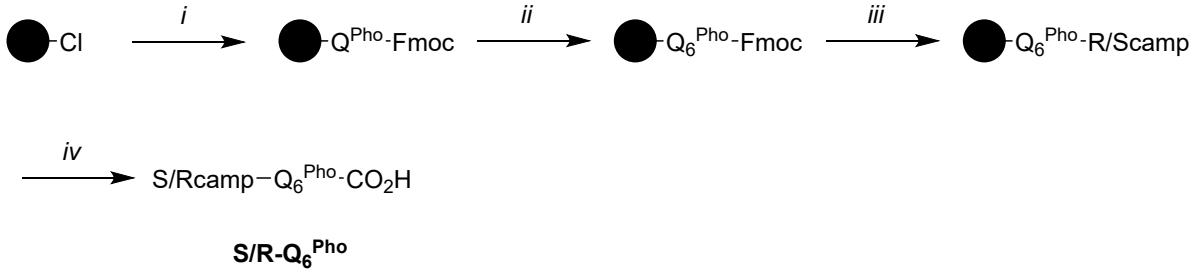
[4] Ziach K., Chollet C., Parissi V., Prabhakaran P., Marchivie M., Corvaglia V., Bose P. P., Laxmi-Reddy K., Godde F., Schmitter J.-M., Chaignepain S., Pourquier P., Huc I. Single helically folded aromatic oligoamides that mimic the charge surface of double-stranded B-DNA. *Nat. Chem.,* **2018***, 10,* 511.



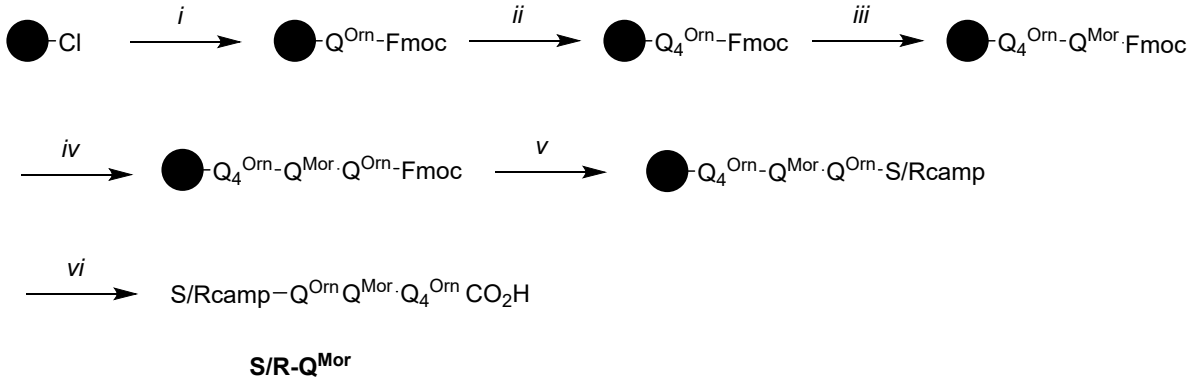
Scheme S3: Acid chloride preparation procedure. Fmoc(Q^X)CO_2H monomer (1 equiv.) was suspended in 1 mL of dry DCM and Ghosez reagent (2 equiv.) was added. The solution was stirred for 2 h, and competition was monitored by ^1H NMR. All volatiles were removed under a vacuum line yielding the corresponding acid chloride Fmoc(Q^X)COCl as a yellow solid (quantitative yield).



Scheme S4: Solid phase synthesis of chiral Q^{Orn} hexamers. *i*) Fmoc(Q^{Orn})CO_2H, CsI, DIEA, dry DMF. *ii*) 5 times [2x(Piperidine/DMF, 2:8; *v/v*), 2x(Fmoc(Q^{Orn})CO_2H, PPh_3, TCAN, Collidine)]. *iii*) 2x(Piperidine/DMF 2:8 (*v/v*)), 2x((1R/S)-(+/-)-camphanic acid, PPh_3, TCAN, Collidine). *iv*) TFA/TIPS/H_2O 95:2.5:2.5 (*v/v/v*).

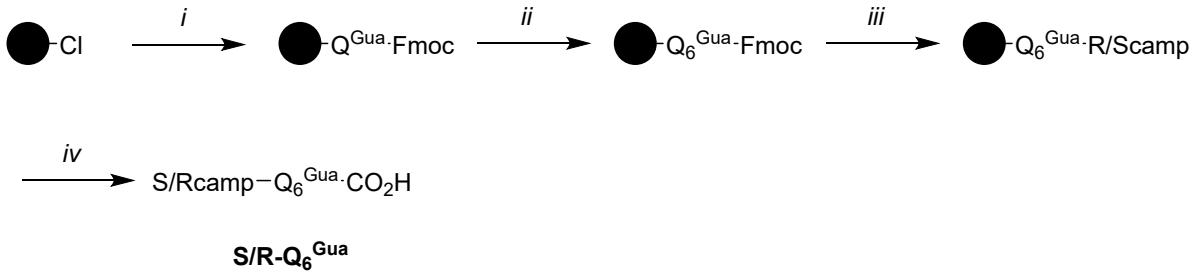


Scheme S5: Solid phase synthesis of chiral Q^{Pho} hexamers. *i*) Fmoc(Q^{Pho})CO_2H, CsI, DIEA, dry DMF. *ii*) 5 times [2x(Piperidine/DMF 2:8 *v/v*), 2x(Fmoc(Q^{Pho})CO_2H, PPh_3, TCAN, Collidine)]. *iii*) 2x(Piperidine/DMF 2:8 (*v/v*)), 2x((1R/S)-(+/-)-camphanic acid, PPh_3, TCAN, Collidine). *iv*) TFA/TIPS/H_2O 95:2.5:2.5 (*v/v/v*).



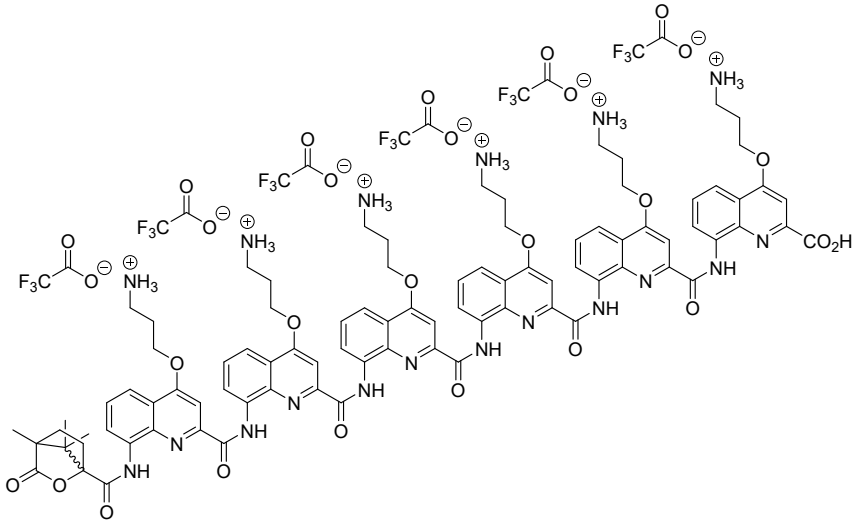
Scheme S6: Solid phase synthesis of chiral Q^{Mor} hexamers. *i*) Fmoc(Q^{Orn})CO_2H, CsI, DIEA, dry DMF. *ii*) 3

times [2x(Piperidine/DMF 2:8 *v/v*), 2x(Fmoc(Q^{Orn})CO_2H, PPh_3, TCAN, Collidine)]. *iii*) 2x(Piperidine/DMF 2:8 *v/v*), 2x(Fmoc(Q^{Mor})CO_2H, PPh_3, TCAN, Collidine). *iv*) 2x(Piperidine/DMF 2:8 *v/v*), 2x(Fmoc(Q^{Orn})CO_2H, PPh_3, TCAN, Collidine). *v*) 2x(Piperidine/DMF 2:8 (*v/v*)), 2x((1R/S)-(+/-)-camphanic acid, PPh_3, TCAN, Collidine). v*i*) TFA/TIPS/H_2O 95:2.5:2.5 (*v/v/v*).



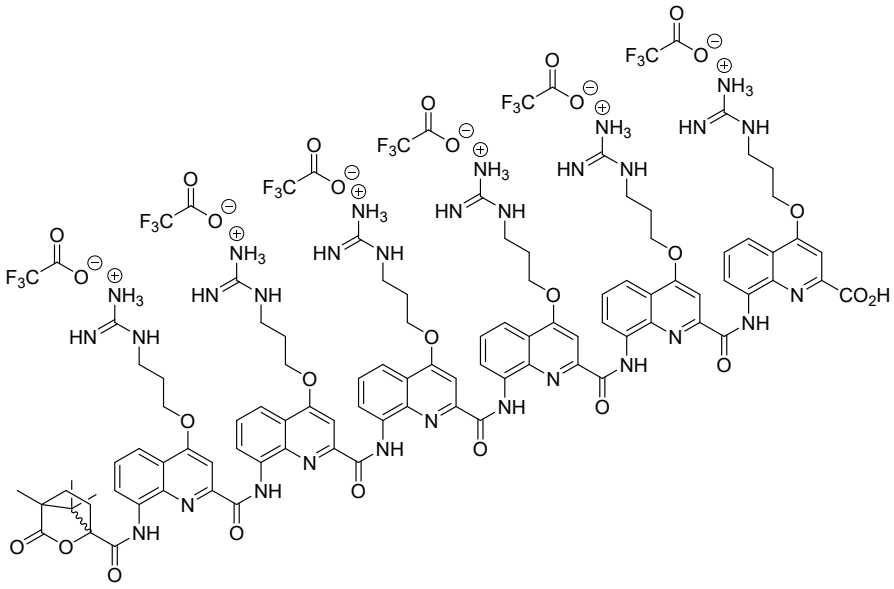
Scheme S7: Solid phase synthesis of chiral Q^{Gua} hexamers. *i*) Fmoc(Q^{Gua})CO_2H, CsI, DIEA, dry DMF. *ii*) 5 times [2x(Piperidine/DMF 2:8 *v/v*), 2x(Fmoc(Q^{Gua})COCl, DIEA)]. *iii*) 2x(Piperidine/DMF 2:8 (*v/v*)), 2x((1R/S)-(+/-)-camphanic chloride, DIEA). *iv*) TFA/TIPS/H_2O 95:2.5:2.5 (*v/v/v*).

2.2.2. Oligomer characterization



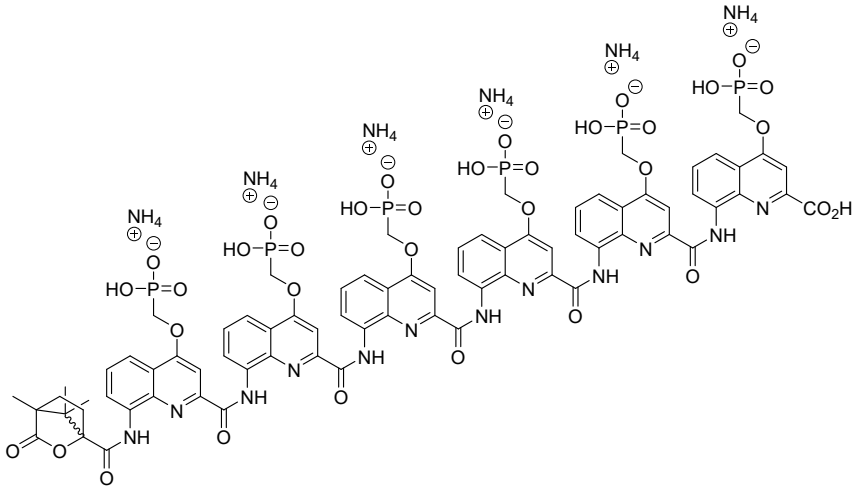
P/M-**1**: Synthetized on 17µmol scale following *in situ* coupling procedure. The target compound was obtained as a light yellow solid after purification by preparative HPLC (15 mg for *P*-**1** and 16 mg for *M*-**1**, 57 % yield).

^{1}H NMR (700 MHz, H_2O/D_2O 95:5 (*v/v*), calibrated with TSP-d_4, 'watergate' water suppression applied at 4.76 ppm which may cause errors in the observed peak intensities in the vicinity of the suppressed peak): δ 11.85 (s, 1H), 11.84 (s, 1H), 11.73 (s, 1H), 11.48 (s, 1H), 11.32 (s, 1H), 9.62 (s, 1H), 8.55 (d, 1H, $^3J_{H-H}$ = 7.49 Hz), 8.05-8.08 (m, 1H), 8.03 (d, 2H, $^3J_{H-H}$ = 7.70 Hz), 7.94 (d, 1H, $^3J_{H-H}$ = 7.98 Hz), 7.91 (d, 1H, $^3J_{H-H}$ = 7.63 Hz), 7.89 (d, 1H, $^3J_{H-H}$ = 7.21 Hz), 7.82-7.85 (m, 3H), 7.63-7.68 (m, 4H), 7.55-7.60 (m, 6H), 7.51-7.55 (m, 6H), 7.38-7.51 (m, 7H), 7.33 (s, 1H), 7.27-7.31 (m, 1H), 7.00 (s, 1H), 6.75 (s, 1H), 6.61 (s, 1H), 6.49 (s, 1H), 6.38 (s, 1H), 3.49-3.58 (m, 7H), 3.36-3.46 (m, 12H), 3.28 (t, 2H, $^3J_{H-H}$ = 7.45 Hz), 2.46-2.57 (m, 6H), 2.30-2.46 (m, 7H), 0.80 (s, 3H), 0.60 (s, 3H), 0.56 (s, 3H). HRMS (ESI$^+$) m/z 1657.7199 $[M+H]^+$ (calc. 1657.7111 for $C_{88}H_{103}N_{18}O_{16}^+$).



P/M-**2**: Synthesized on 23 µmol scale following the acid chloride coupling procedure. The target compound was obtained as a light yellow solid after purification by preparative HPLC (3.5 mg for both enantiomers, 7 % yield).

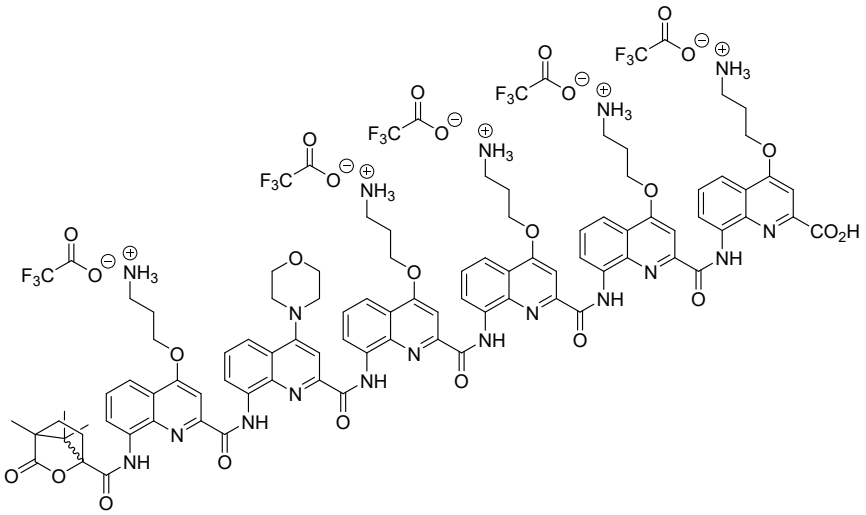
^{1}H NMR (700MHz, H_2O/D_2O 95:5 (*v/v*), calibrated with TSP-d_4, 'watergate' water suppression applied at 4.84 ppm which may cause errors in the observed peak intensities in the vicinity of the suppressed peak): 11.88 (s, 1H), 11.87 (s, 1H), 11.78 (s, 1H), 11.57 (s, 1H), 11.34 (s, 1H), 9.74 (s, 1H), 8.59 (d, 1H, $^3J_{H\text{-}H}$ = 7.4 Hz), 8.17 (d, 1H, $^3J_{H\text{-}H}$ = 8.0 Hz), 8.12 (d, 1H, $^3J_{H\text{-}H}$ = 7.9 Hz), 8.08 (d, 1H, $^3J_{H\text{-}H}$ = 6.2 Hz), 8.05 (d, 1H, $^3J_{H\text{-}H}$ = 8.1 Hz), 8.01 (d, 1H, $^3J_{H\text{-}H}$ = 7.8 Hz), 7.94-7.99 (m, 3H), 7.84-7.90 (m, 3H), 7.76 (d, 1H, $^3J_{H\text{-}H}$ = 6.4 Hz), 7.59 (brs, 2H), 7.50-7.56 (m, 6H), 7.44-7.50 (m, 5H), 7.42 (brs, 1H), 7.39 (s, 2H), 7.31-7.35 (m, 2H), 7.18 (s, 1H), 7.11 (s, 2H), 7.03 (s, 1H), 6.84 (s, 1H), 6.71 (s, 1H), 6.56 (s, 1H), 6.46 (s, 1H), 3.46-3.86 (m, 30H), 3.18-3.23 (m, 6H), 2.44-2.60 (m, 10H), 2.32-2.44 (m, 13H), 2.19-2.32 (m, 6H), 1.99 (s, 2H), 1.29 (s, 3H), 1.29 (t, 9H, $^3J_{H\text{-}H}$ = 7.3Hz). HRMS (ESI$^+$) m/z 955.4316 $[M+2H]^{2+}$ (calc. 955.4196 for $C_{94}H_{106}N_{30}O_{16}^{2+}$).



P/M-**3**: Synthesized on 8 µmol scale following the acid chloride coupling procedure. The target compound was obtained as a light yellow solid after purification by preparative HPLC (12 mg for both enantiomers, 80 % yield).

^{1}H NMR (700 MHz, H_2O/D_2O 95:5 (*v/v*) + 50mM NH_4HCO_3 buffer, calibrated with TSP-d_4, 'watergate' water suppression applied at 4.82 ppm which may cause errors in the observed peak intensities in the

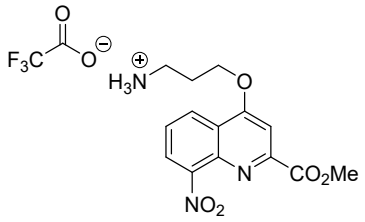
vicinity of the suppressed peak): δ 11.86 (s, 2H), 11.82 (s, 1H), 11.64 (s, 1H), 11.36 (s, 1H), 9.79 (s, 1H), 8.67 (d, 1H, 3JH-H=7.49 Hz), 8.36 (d, 1H, 3JH-H=8.26 Hz), 8.30 (d, 1H, 3JH-H = 8.33 Hz), 8.24 (d, 1H, 3JH-H = 8.05 Hz), 8.19 (d, 1H, 3JH-H = 7.98 Hz), 8.10-8.14 (m, 2H), 8.06 (d, 1H, 3JH-H = 8.19 Hz), 8.03 (d, 1H, 3JH-H = 7.42 Hz), 7.76 (t, 1H, 7.91 Hz), 7.78-7.80 (m, 1H), 7.59-7.68 (m, 5H), 7.54-7.56 (m, 1H), 7.48 (t, 1H, 3JH-H = 7.8 Hz), 7.43 (s, 1H), 7.18 (s, 1H), 6.82 (s, 1H), 6.73 (s, 1H), 6.52 (s, 1H), 6.46 (s, 1H), 4.38-4.46 (m, 0.4H), 4.31-4.36 (m, 0.8H), 4.28 (t, 0.5H, 3JH-H = 9.94 Hz), 4.21 (t, 0.6H, 3JH-H = 9.87 Hz), 4.10-4.16 (m, 2H), 3.98-4.02 (m, 1H), 3.92-3.96 (m, 1H), 3.16 (q, 2H, 3JH-H = 7.35 Hz), 2.01 (s, 1H), 1.92 (s, 6H), 1.25 (t, 4H, 3JH-H=7.35Hz), 0.67 (s, 3H), 0.64 (s, 3H), 0.16 (s, 3H). HRMS (ESI^+) m/z 938,1170 $[M-2H]^{2-}$ (calc. 938,1120 for $C_{76}H_{66}N_{12}O_{34}P_6^{2-}$).



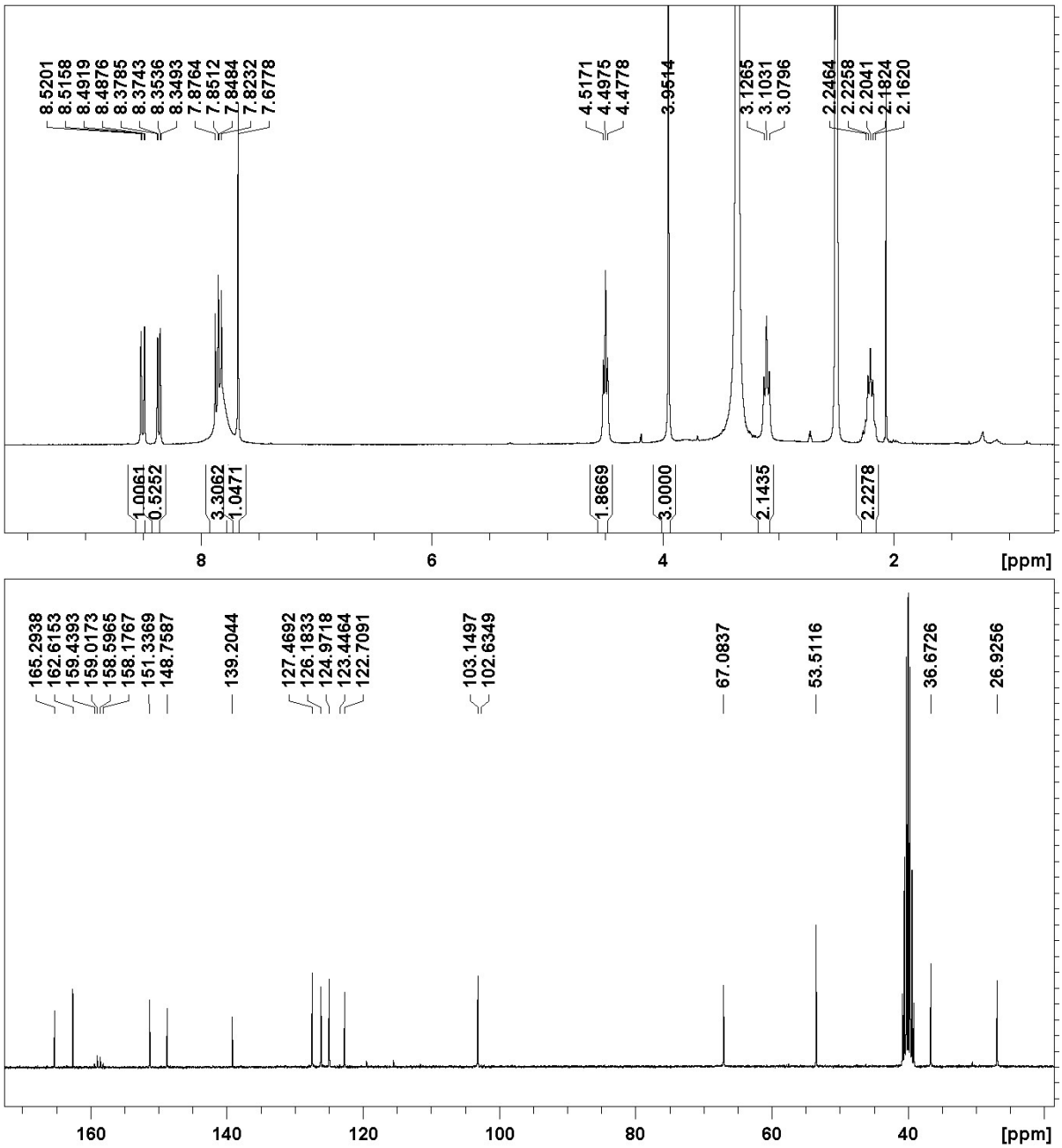
P/M-**4**: Synthesized on an 11 µmol scale following *in situ* coupling procedure. The target compound was obtained as a light yellow solid after purification by preparative HPLC (10 mg for both enantiomers, 66 % yield).

^{1}H NMR (700 MHz, H_2O/D_2O 95:5 (*v/v*), calibrated with TSP-d_4, 'watergate' water suppression applied at 4.87 ppm which may cause errors in the observed peak intensities in the vicinity of the suppressed peak): δ 11.92 (s, 1H), 11.91 (s, 1H), 11.77 (s, 1H), 11.64 (s, 1H), 11.43 (s, 1H), 9.73 (s, 1H), 8.60 (d, 1H, $^3J_{H-H}$ = 7.56 Hz), 8.14 (d, 1H, $^3J_{H-H}$ = 7.98 Hz), 8.11 (d, 1H, $^3J_{H-H}$ = 7.28 Hz), 7.95-8.02 (m, 4H), 7.93 (d, 1H, 3JH-H = 8.12 Hz), 7.87-7.90 (m, 2H), 7.71 (d, 1H, $^3J_{H-H}$ = 5.18 Hz), 7.47-7.58 (m, 8H), 7.37 (t, 1H, $^3J_{H-H}$ = 7.7 Hz), 7.13 (s, 1H), 6.87 (s, 1H), 6.57 (s, 1H), 6.46 (s, 1H), 3.70-3.77 (m, 3H), 3.55-3.69 (m, 7H), 3.42-3.53 (m, 6H), 3.35 (t, 3H, $^3J_{H-H}$ = 7.49 Hz), 3.21 (q, 2H, $^3J_{H-H}$ = 7.42 Hz), 2.38-2.64 (m, 12H), 2.30-2.37 (m, 1H), 2.07-2.12 (m, 1H), 1.93 (s, 1H), 1.82-1.87 (m, 1H), 1.76-1.82 (m, 1H), 1.29 (t, 5H, $^3J_{H-H}$ = 7.35 Hz), 0.66 (s, 3H), 0.65 (s, 3H), 0.16 (s, 3H). HRMS (ESI^+) m/z 1669.7181 $[M+H]^+$ (calc. 1669.7011 for $C_{89}H_{93}N_{18}O_{16}^+$).

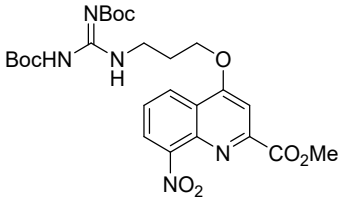
3. NMR, HR-Mass spectra and Chromatograms



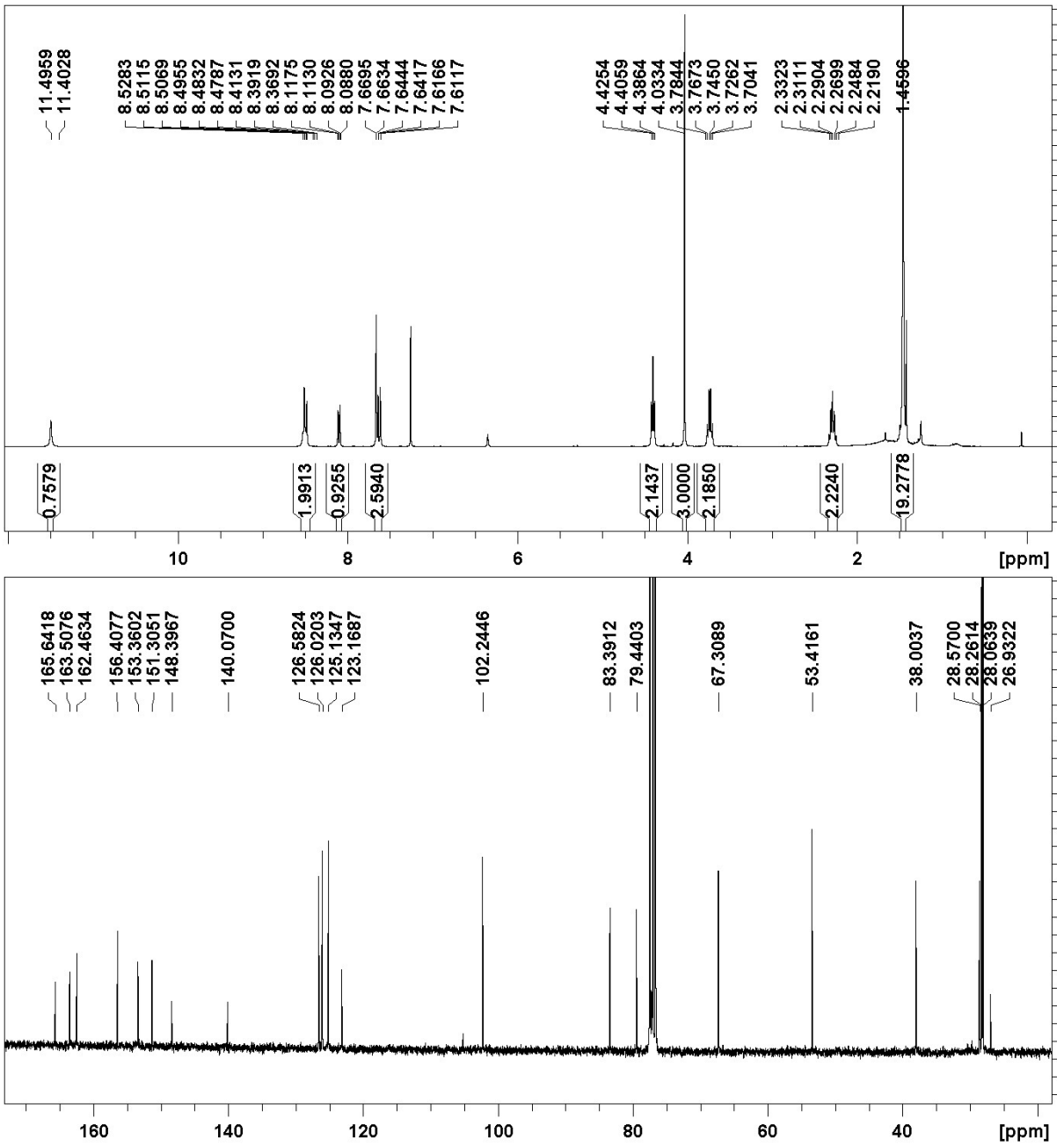
2

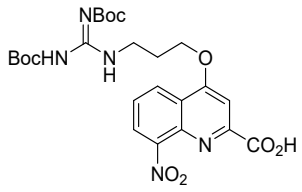


*Monomer **3***

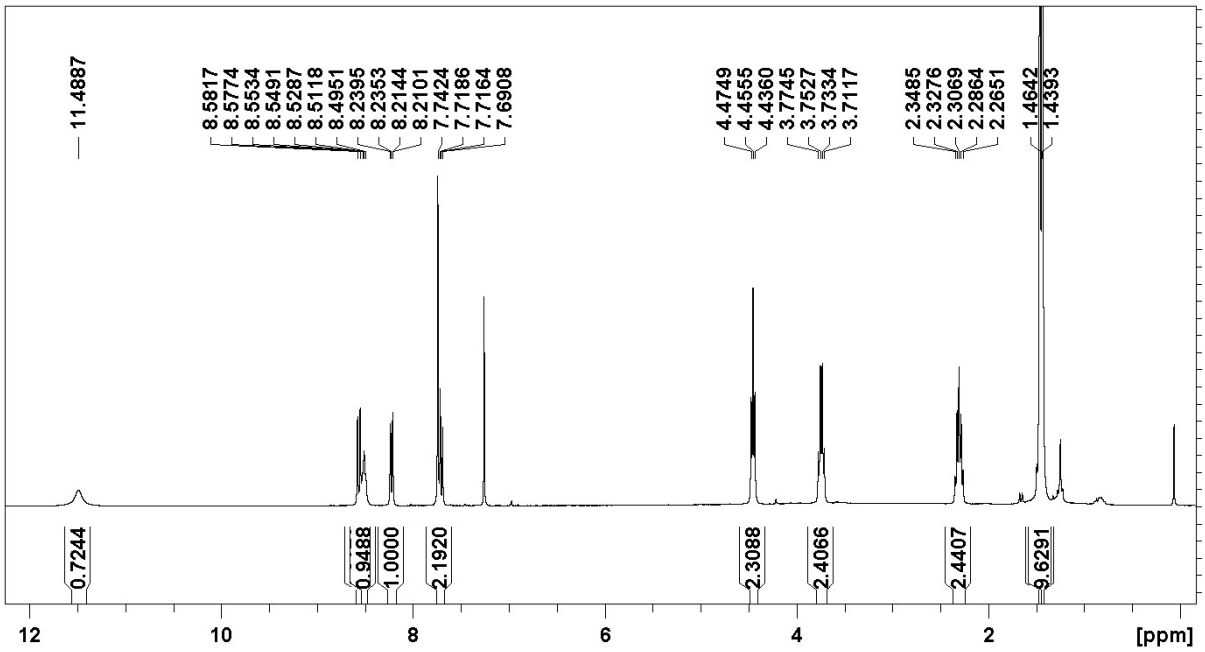

NBoc
BocHN
N
H
O
N
CO2Me
NO2

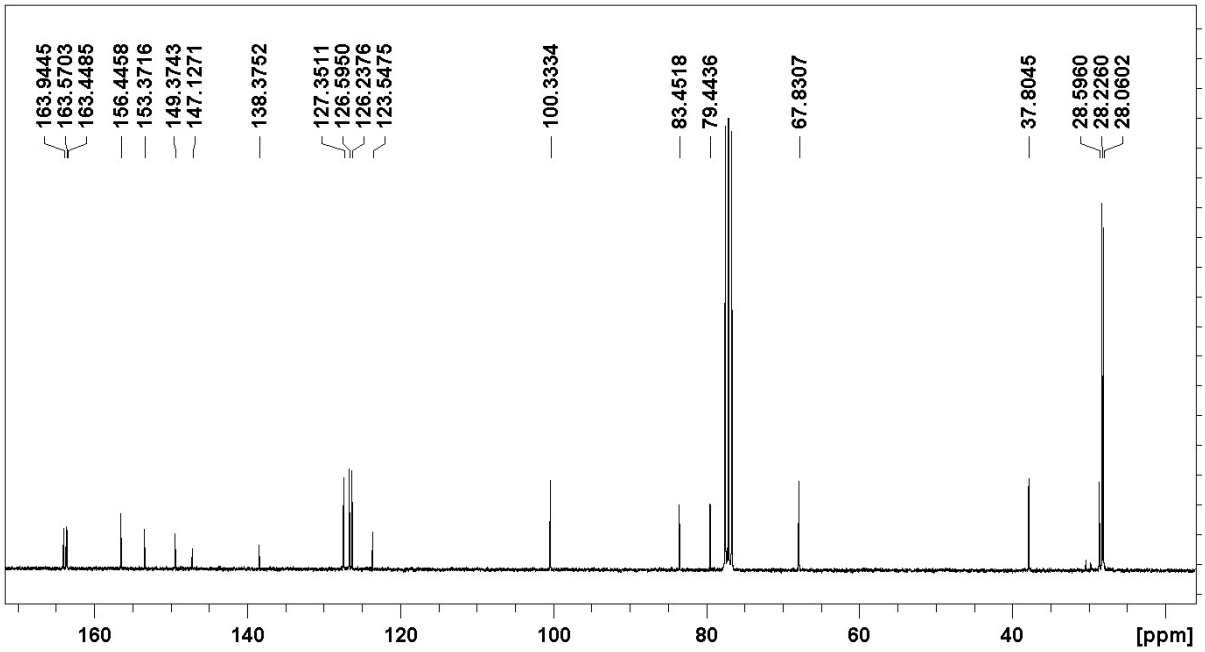
3

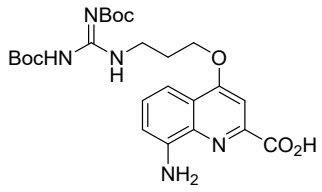

11.4959
11.4028
8.5283
8.5115
8.5069
8.4955
8.4832
8.4787
8.4131
8.3919
8.3692
8.1175
8.1130
8.0926
8.0880
7.6695
7.6634
7.6444
7.6417
7.6166
7.6117
4.4254
4.4059
4.3864
4.0334
3.7844
3.7673
3.7450
3.7262
3.7041
2.3323
2.3111
2.2904
2.2699
2.2484
2.2190
1.4596
0.7579
1.9913
0.9255
2.5940
2.1437
3.0000
2.1850
2.2240
19.2778
10
8
6
4
2
[ppm]
165.6418
163.5076
162.4634
156.4077
153.3602
151.3051
148.3967
140.0700
126.5824
126.0203
125.1347
123.1687
102.2446
83.3912
79.4403
67.3089
53.4161
38.0037
28.5700
28.2614
28.0639
26.9322
160
140
120
100
80
60
40
[ppm]


NBoc
BocHN
N
H
O
N
CO2H
NO2

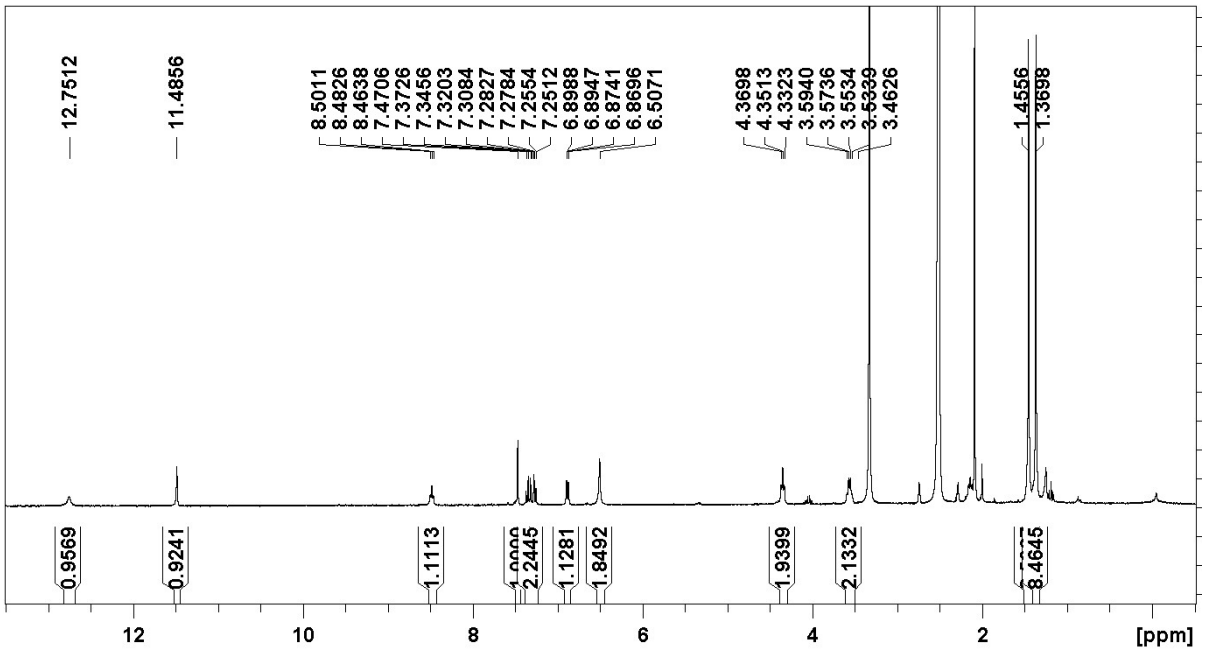
4

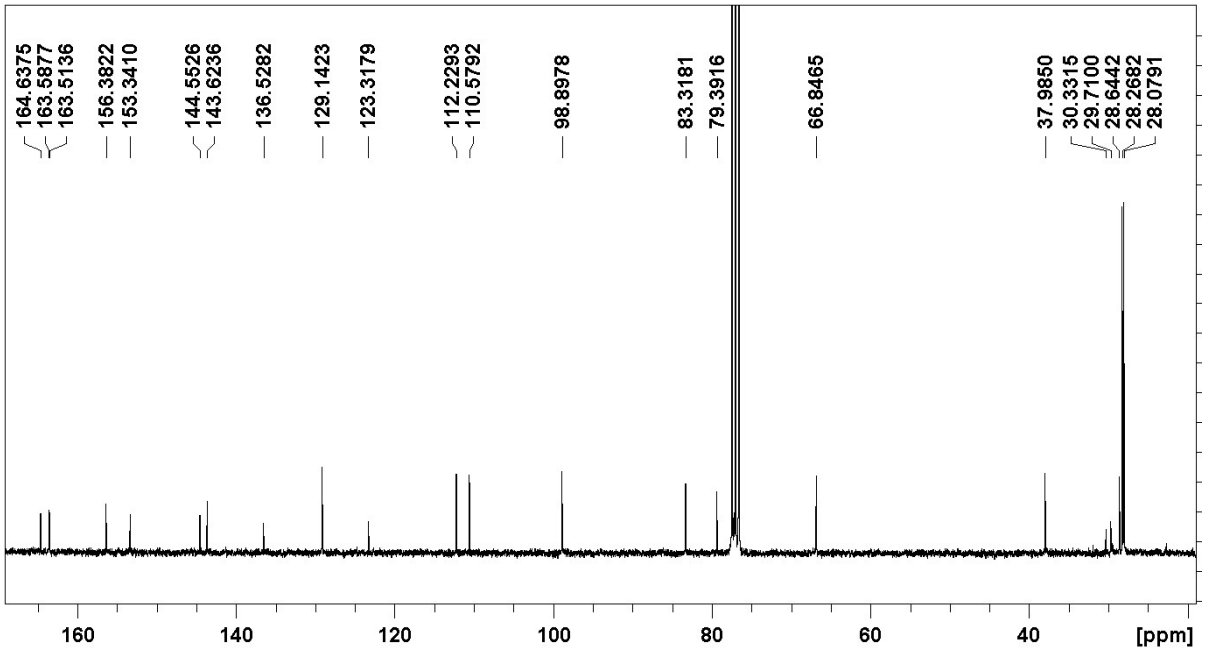

11.4887
8.5817
8.5774
8.5534
8.5491
8.5287
8.5118
8.4951
8.2395
8.2353
8.2144
8.2101
7.7424
7.7186
7.7164
7.6908
4.4749
4.4555
4.4360
3.7745
3.7527
3.7334
3.7117
2.3485
2.3276
2.3069
2.2864
2.2651
1.4642
1.4393
0.7244
0.9488
1.0000
2.1920
2.3088
2.4066
2.4407
9.6291
12
10
8
6
4
2
[ppm]

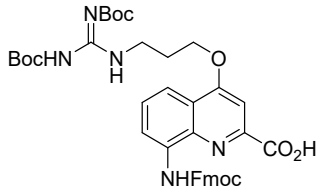

163.9445
163.5703
163.4485
156.4458
153.3716
149.3743
147.1271
138.3752
127.3511
126.5950
126.2376
123.5475
100.3334
83.4518
79.4436
67.8307
37.8045
28.5960
28.2260
28.0602
160
140
120
100
80
60
40
[ppm]


NBoc
BocHN
N
H
O
N
CO2H
NH2

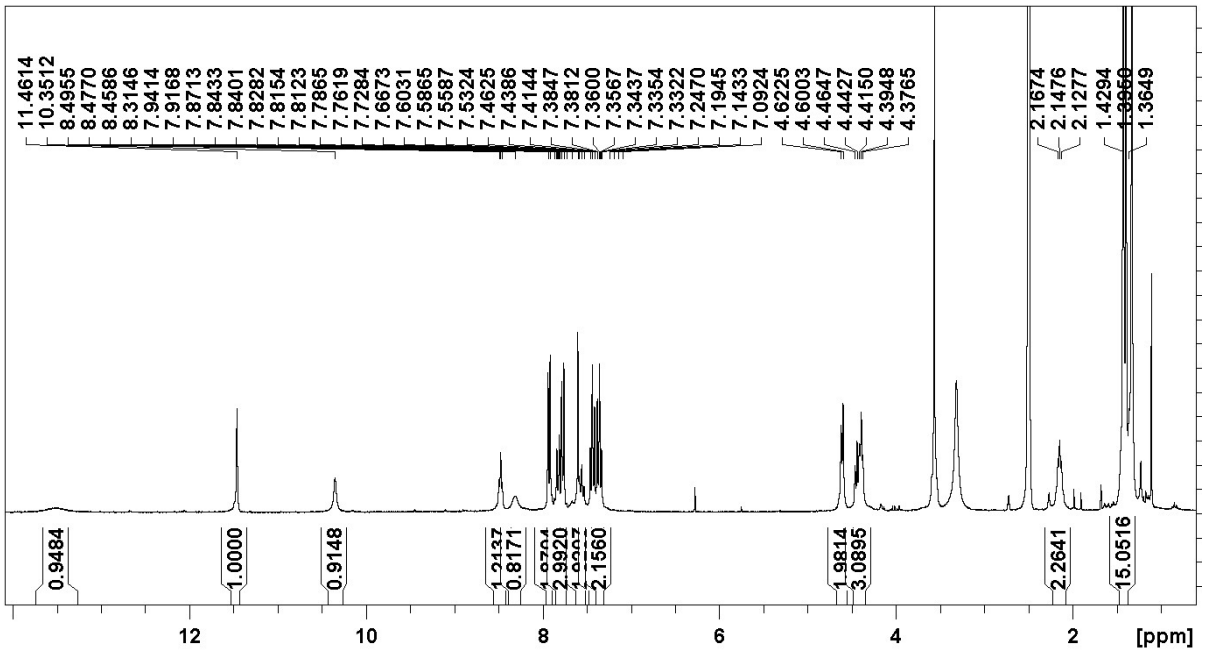
5

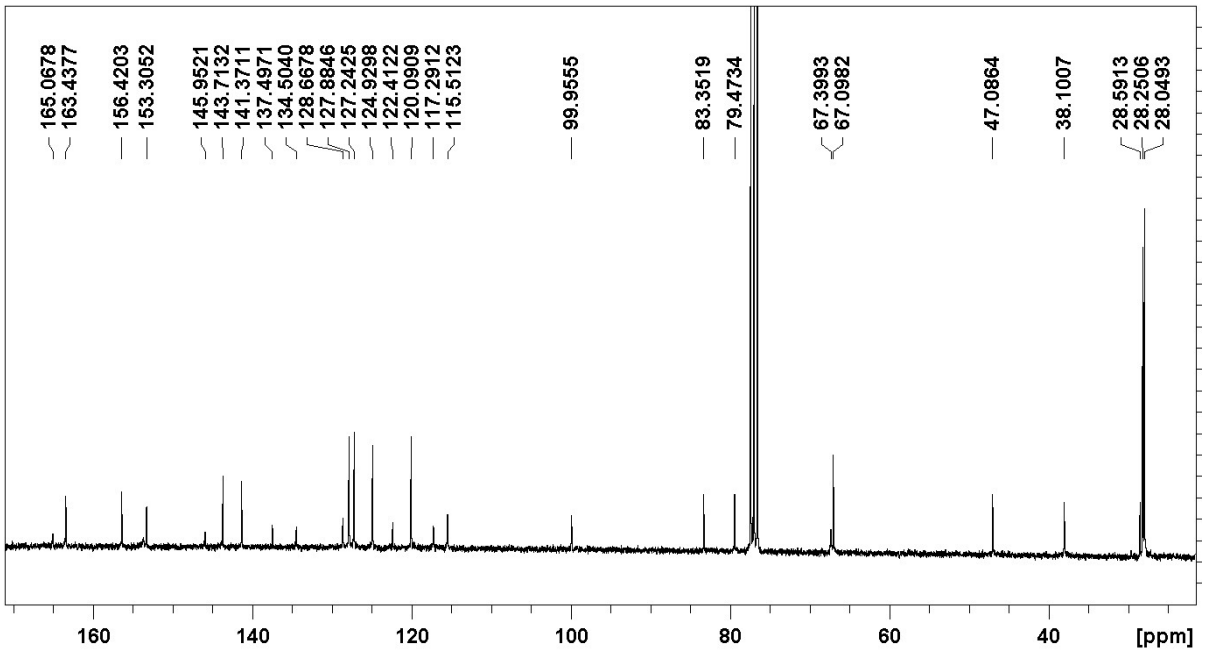

12.7512
11.4856
8.5011
8.4826
8.4638
7.4706
7.3726
7.3456
7.3203
7.3084
7.2827
7.2784
7.2554
7.2512
6.8988
6.8947
6.8741
6.8696
6.5071
4.3698
4.3513
4.3323
3.5940
3.5736
3.5534
3.5339
3.4626
1.4556
1.3698
0.9569
0.9241
1.1113
2.2445
1.1281
1.8492
1.9399
2.1332
8.4645
12
10
8
6
4
2
[ppm]

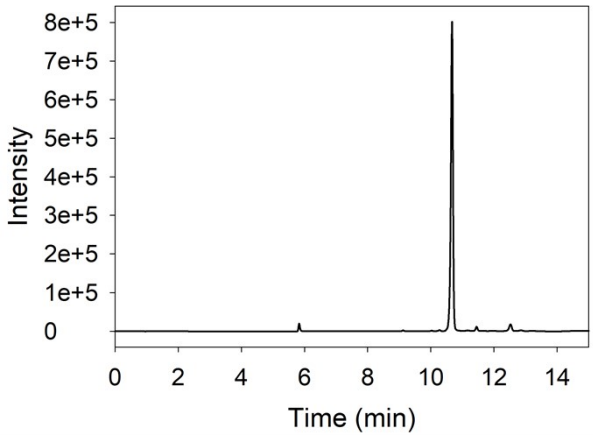

164.6375
163.5877
163.5136
156.3822
153.3410
144.5526
143.6236
136.5282
129.1423
123.3179
112.2293
110.5792
98.8978
83.3181
79.3916
66.8465
37.9850
30.3315
29.7100
28.6442
28.2682
28.0791
160
140
120
100
80
60
40
[ppm]

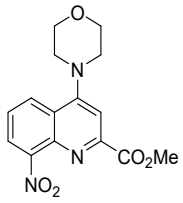


Fmoc(Q^{Gua})CO_2H

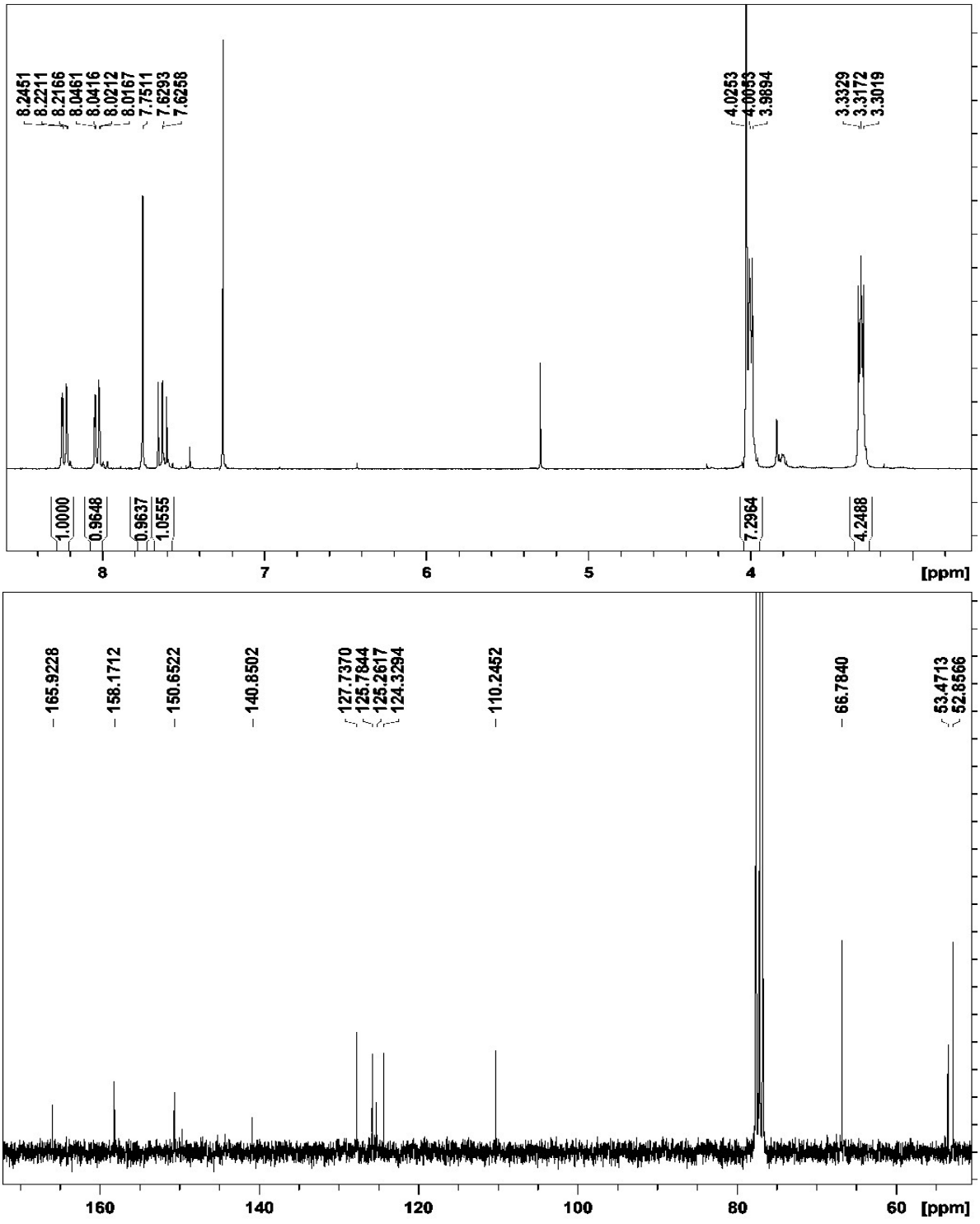


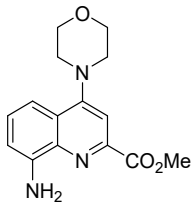



8e+5
7e+5
6e+5
5e+5
4e+5
3e+5
2e+5
1e+5
0
Intensity
0
2
4
6
8
10
12
14
Time (min)

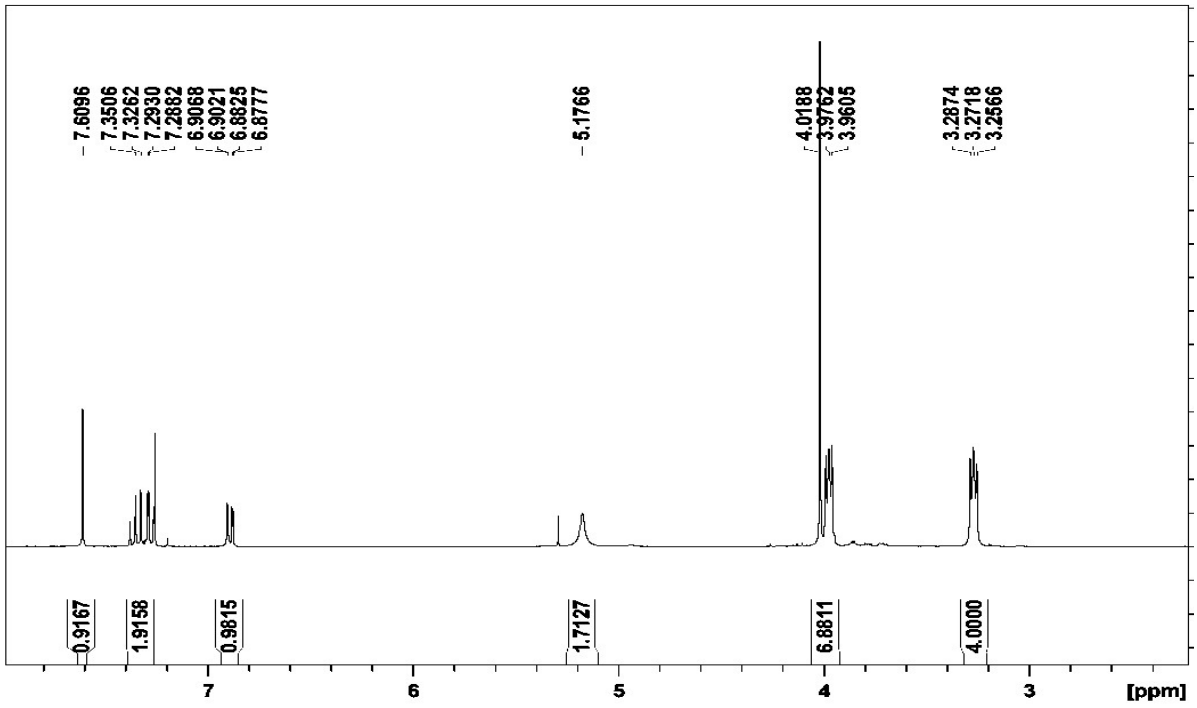

O
N
N
CO2Me
NO2

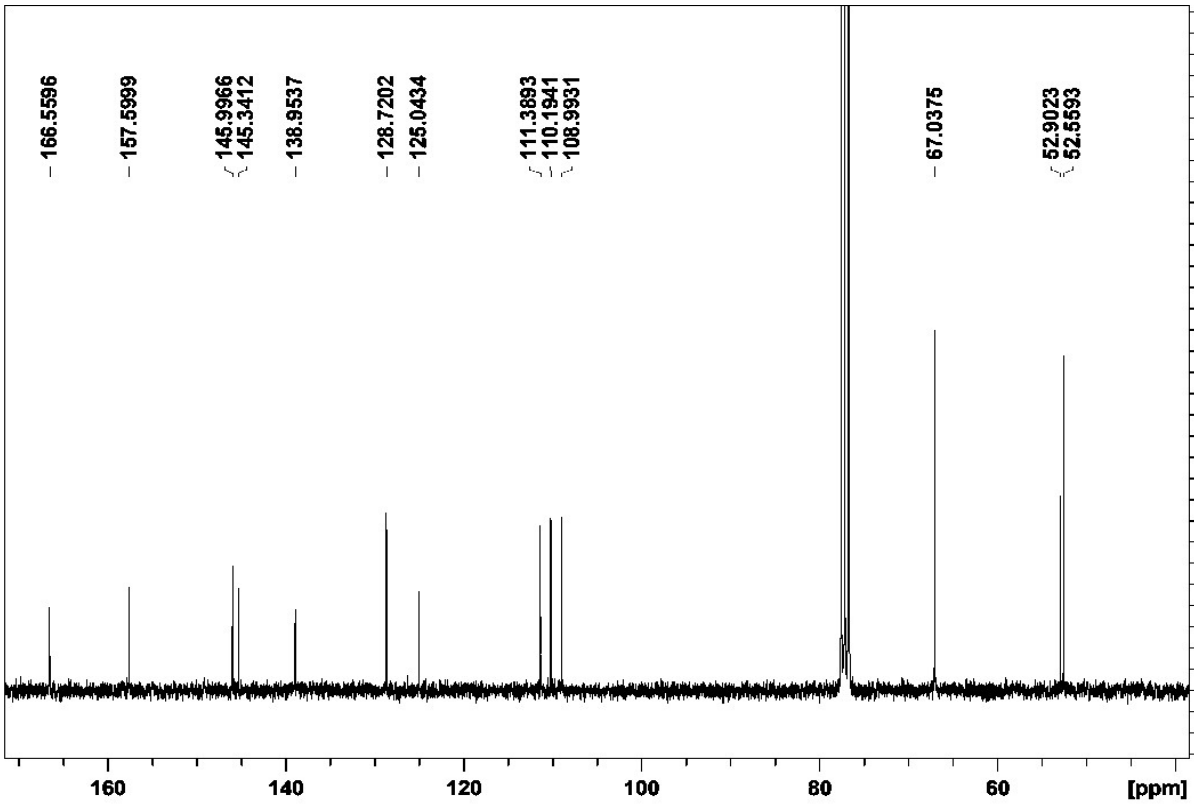
7

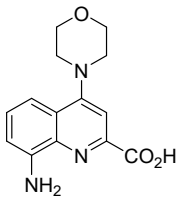

8.2451
8.2211
8.2166
8.0461
8.0416
8.0212
8.0167
7.7511
7.6293
7.6258
4.0253
4.0063
3.9894
3.3329
3.3172
3.3019
1.0000
0.9648
0.9637
1.0555
7.2964
4.2488
8
7
6
5
4
[ppm]
165.9228
158.1712
150.6522
140.8502
127.7370
125.7844
125.2617
124.3294
110.2452
66.7840
53.4713
52.8566
160
140
120
100
80
60
[ppm]


O
N
N
CO2Me
NH2

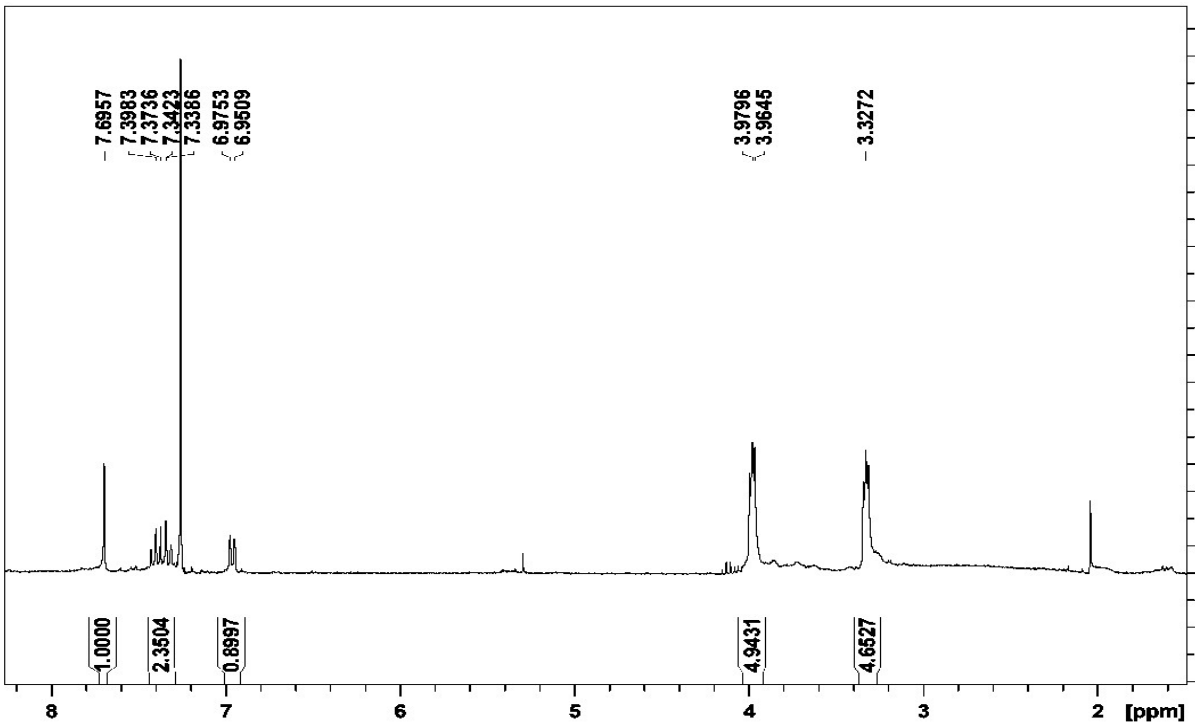
8

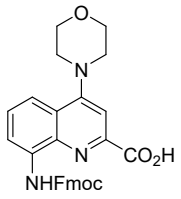

7.6096
7.3506
7.3262
7.2930
7.2882
6.9068
6.9021
6.8825
6.8777
5.1766
4.0188
3.9762
3.9605
3.2874
3.2718
3.2566
0.9167
1.9158
0.9815
1.7127
6.8811
4.0000
7
6
5
4
3
[ppm]


166.5596
157.5999
145.9966
145.3412
138.9537
128.7202
125.0434
111.3893
110.1941
108.9931
67.0375
52.9023
52.5593
160
140
120
100
80
60
[ppm]

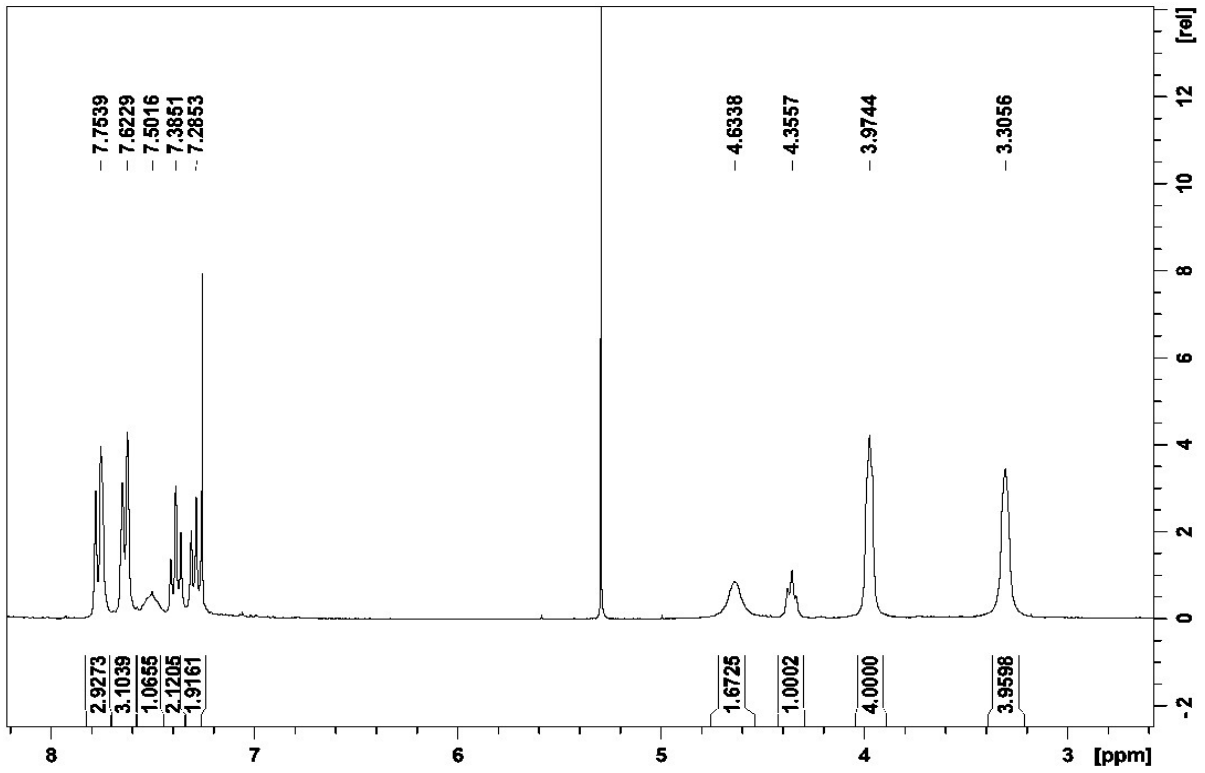

O
N
N
CO2H
NH2

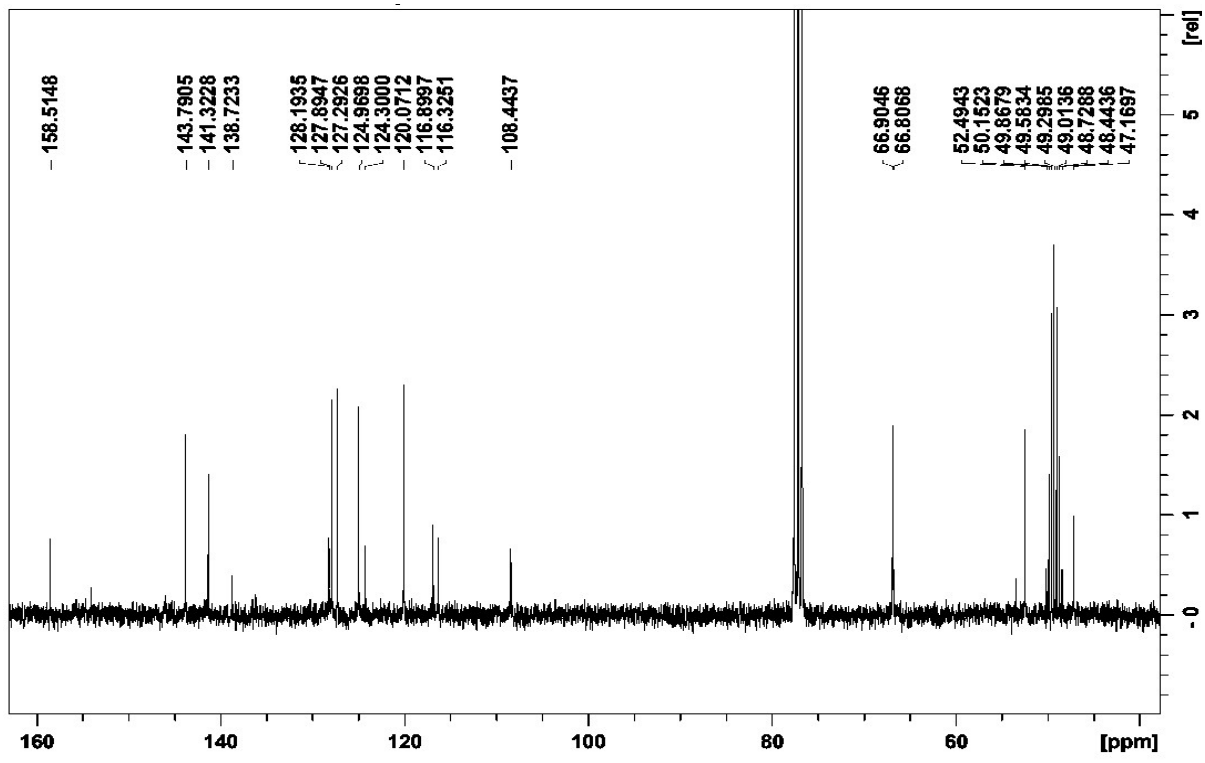
9

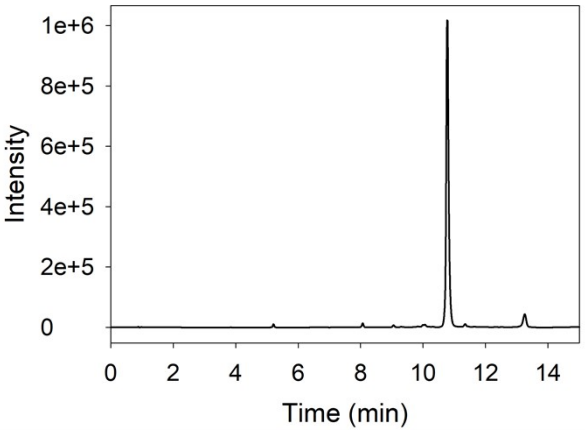

7.6957
7.3983
7.3736
7.3423
7.3386
6.9753
6.9509
3.9796
3.9645
3.3272
1.0000
2.3504
0.8997
4.9431
4.6527
8
7
6
5
4
3
2
[ppm]



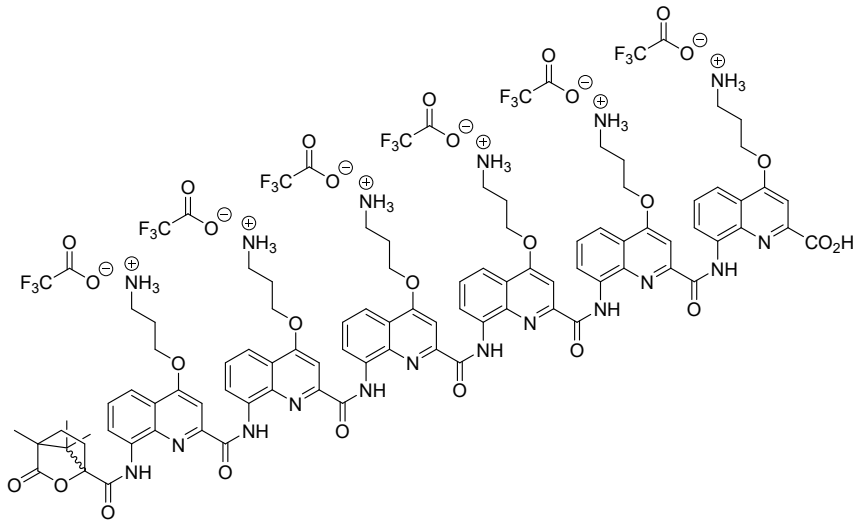
Fmoc(Q^{Mor})CO_2H

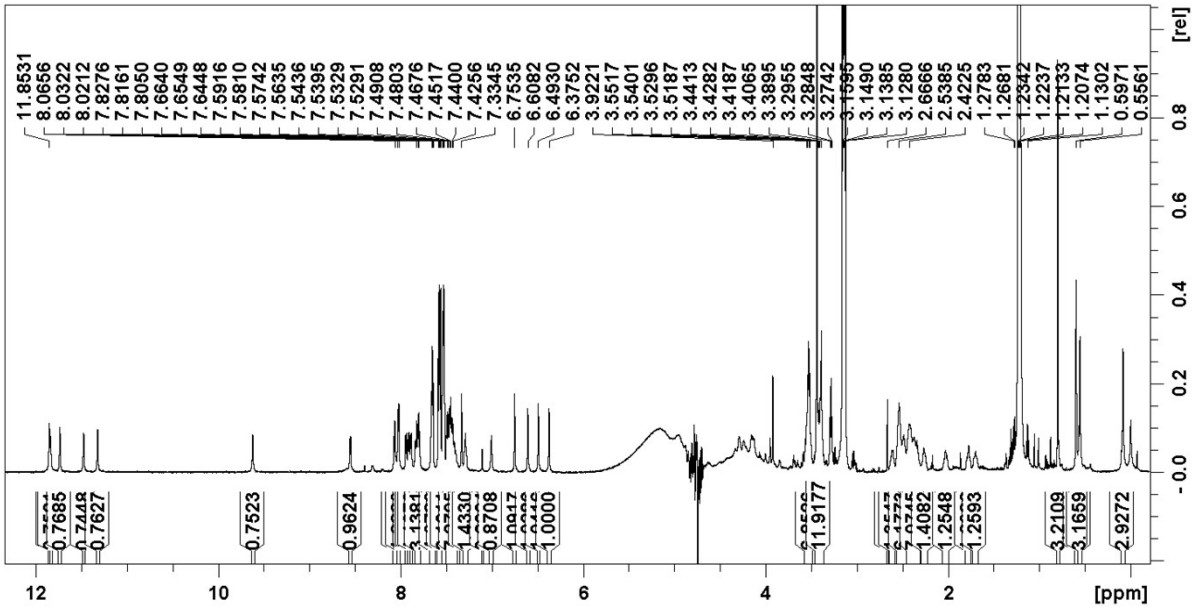


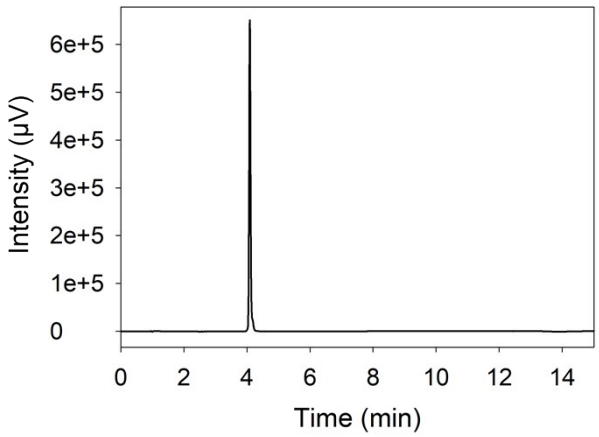


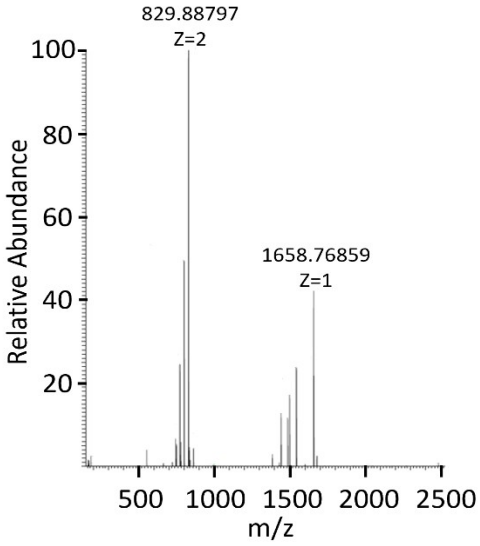

1e+6
8e+5
6e+5
4e+5
2e+5
0
Intensity
0
2
4
6
8
10
12
14
Time (min)

P/M-**1**

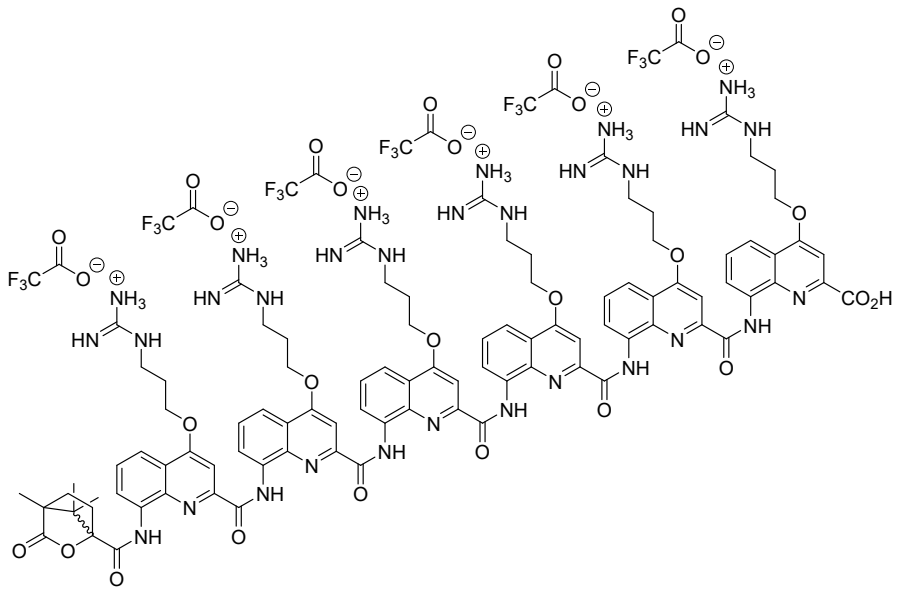


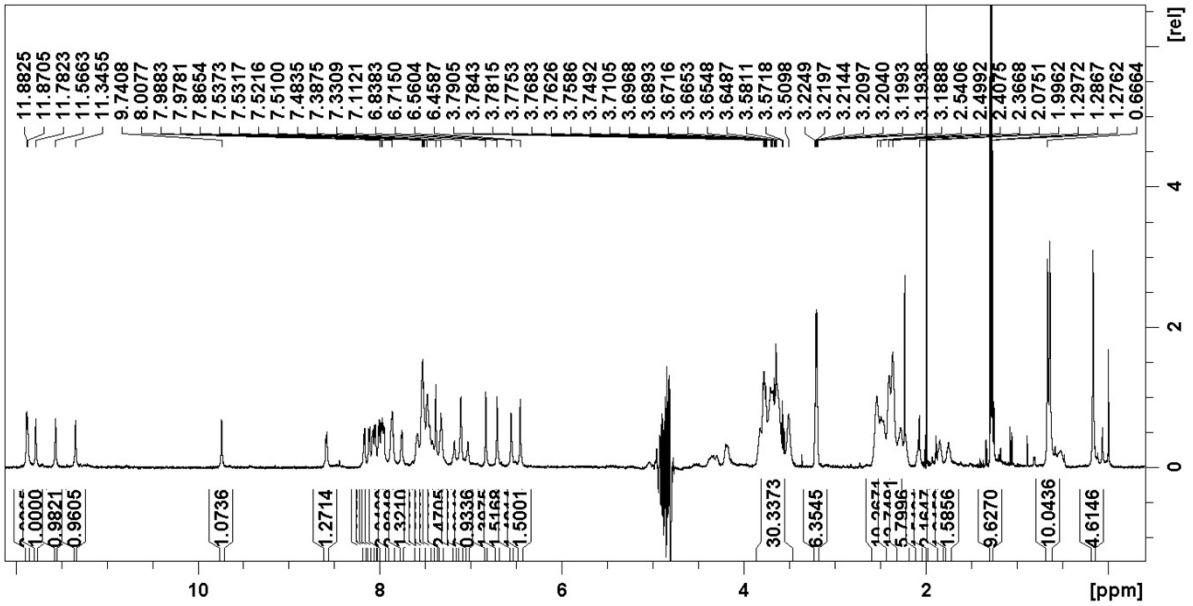

11.8531
8.0656
8.0322
8.0212
7.8276
7.8161
7.8050
7.6640
7.6549
7.6448
7.5916
7.5810
7.5742
7.5635
7.5436
7.5395
7.5329
7.5291
7.4908
7.4803
7.4676
7.4517
7.4400
7.4256
7.3345
6.7535
6.6082
6.4930
6.3752
3.9221
3.5517
3.5401
3.5296
3.5187
3.4413
3.4282
3.4187
3.4065
3.3895
3.2955
3.2848
3.2742
3.1490
3.1385
3.1280
2.6666
2.5385
2.4225
1.2783
1.2681
1.2342
1.2237
1.2133
1.2074
1.1302
0.5971
0.5561
[rel]
0.8
0.6
0.4
0.2
- 0.0
0.7685
0.7448
0.7627
0.7523
0.9624
1.4330
0.8708
1.0000
11.9177
1.4082
1.2548
1.2593
3.2109
3.1659
2.9272
12
10
8
6
4
2
[ppm]

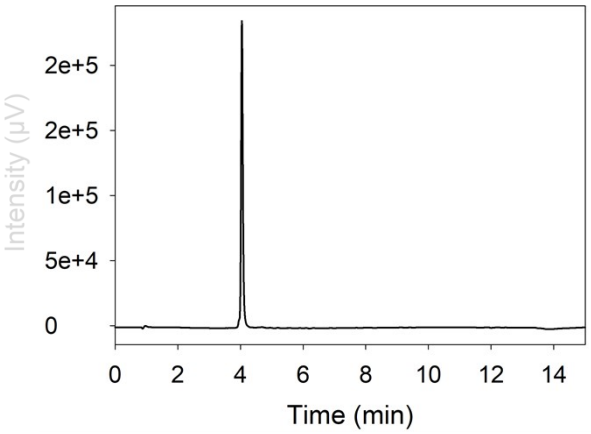

Intensity (μV)
6e+5
5e+5
4e+5
3e+5
2e+5
1e+5
0
0
2
4
6
8
10
12
14
Time (min)

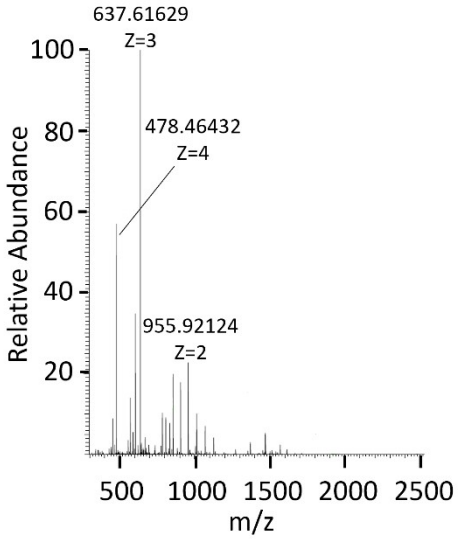

829.88797
Z=2
1658.76859
Z=1
Relative Abundance
100
80
60
40
20
500
1000
1500
2000
2500
m/z

P/M-**2**

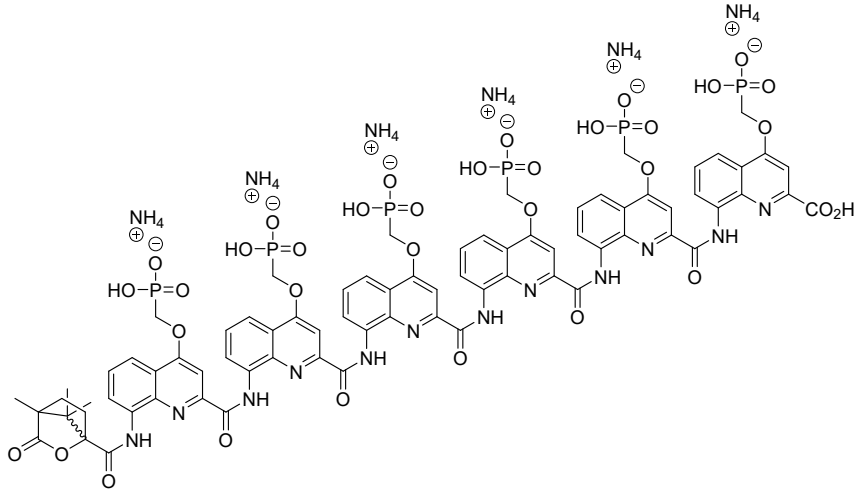


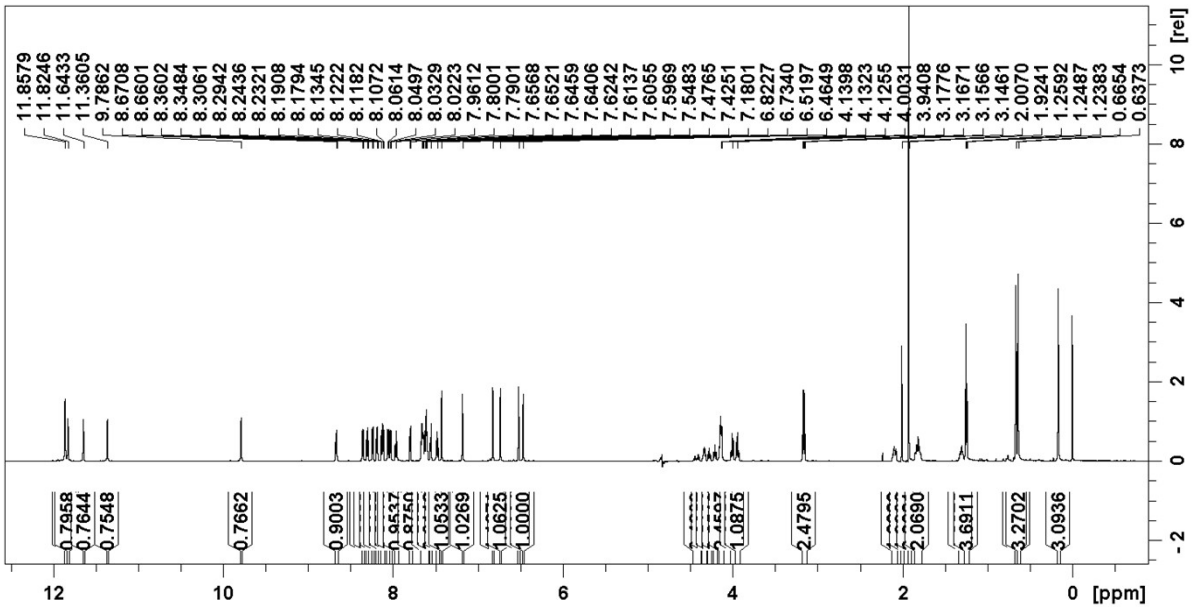

11.8825
11.8705
11.7823
11.5663
11.3455
9.7408
8.0077
7.9883
7.9781
7.8654
7.5373
7.5317
7.5216
7.5100
7.4835
7.3875
7.3309
7.1121
6.8383
6.7150
6.6604
6.4587
3.7905
3.7843
3.7815
3.7753
3.7683
3.7626
3.7586
3.7492
3.7105
3.6968
3.6893
3.6716
3.6653
3.6548
3.6487
3.5811
3.5718
3.5098
3.2249
3.2197
3.2144
3.2097
3.2040
3.1993
3.1938
3.1888
2.5406
2.4992
2.4075
2.3668
2.0751
1.9962
1.2972
1.2867
1.2762
0.6664
[rel]
0
2
4
1.0000
0.9821
0.9605
1.0736
1.2714
1.3210
0.9336
1.5001
30.3373
6.3545
9.6270
10.0436
4.6146
10
8
6
4
2
[ppm]


Intensity (μV)
2e+5
2e+5
1e+5
5e+4
0
0
2
4
6
8
10
12
14
Time (min)

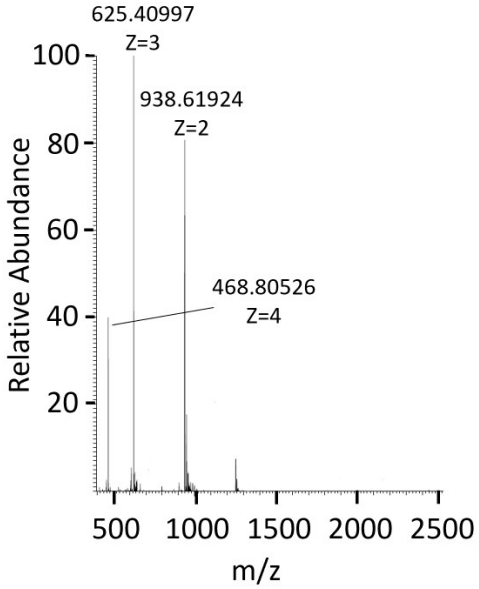

637.61629
Z=3
478.46432
Z=4
955.92124
Z=2
Relative Abundance
100
80
60
40
20
500
1000
1500
2000
2500
m/z

P/M-**3**

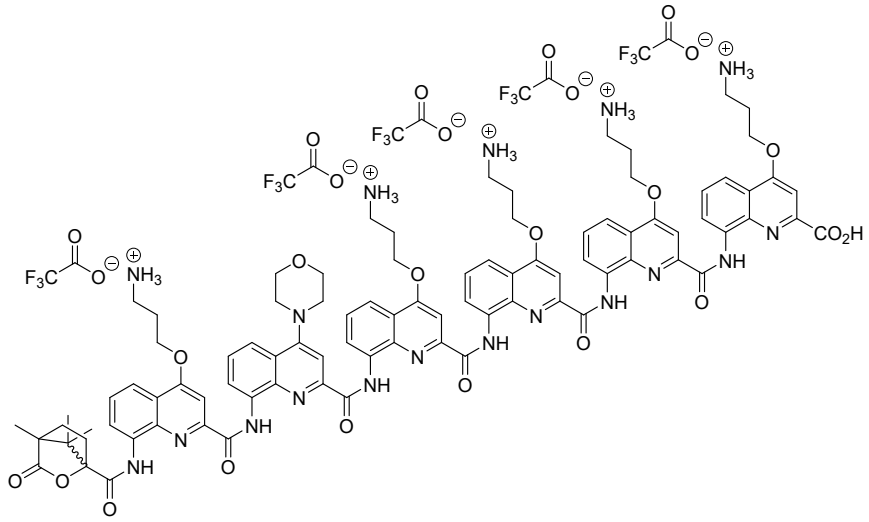


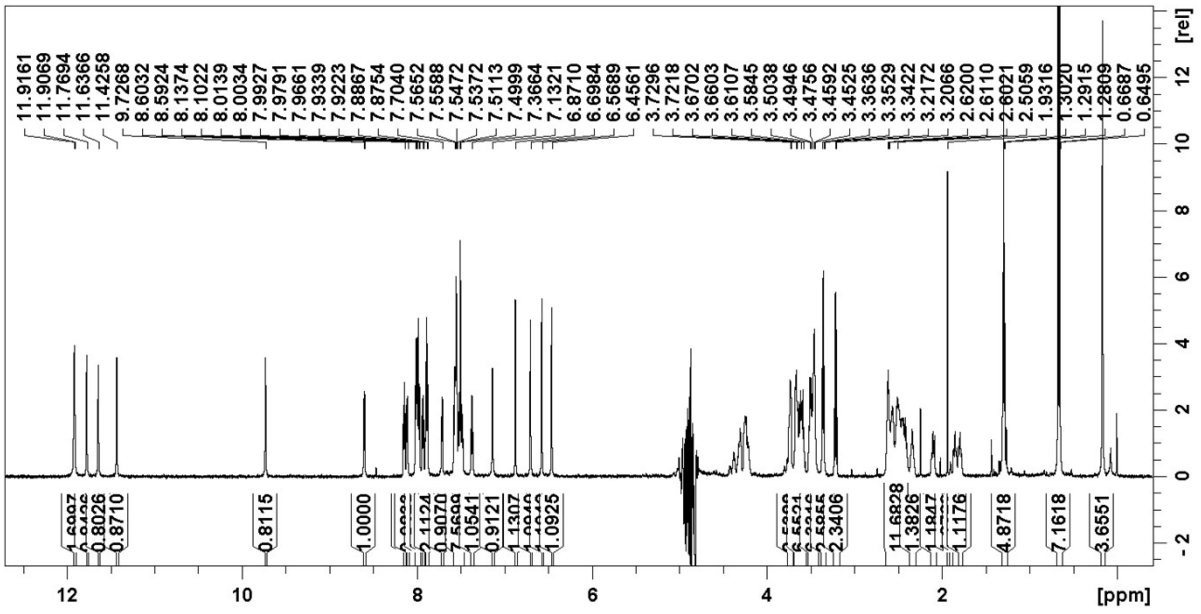

11.8579
11.8246
11.6433
11.3605
9.7862
8.6708
8.6601
8.3602
8.3484
8.3061
8.2942
8.2436
8.2321
8.1908
8.1794
8.1345
8.1222
8.1182
8.1072
8.0614
8.0497
8.0329
8.0223
7.9612
7.8001
7.7901
7.6568
7.6521
7.6459
7.6406
7.6242
7.6137
7.6055
7.5969
7.5483
7.4765
7.4251
7.1801
6.8227
6.7340
6.5197
6.4649
4.1398
4.1323
4.1255
4.0031
3.9408
3.1776
3.1671
3.1566
3.1461
2.0070
1.9241
1.2592
1.2487
1.2383
0.6654
0.6373
10 [rel]
8
6
4
2
0
- 2
0.7958
0.7644
0.7548
0.7662
0.9003
1.0533
1.0269
1.0625
1.0000
1.0875
2.4795
2.0690
3.6911
3.2702
3.0936
12
10
8
6
4
2
0 [ppm]

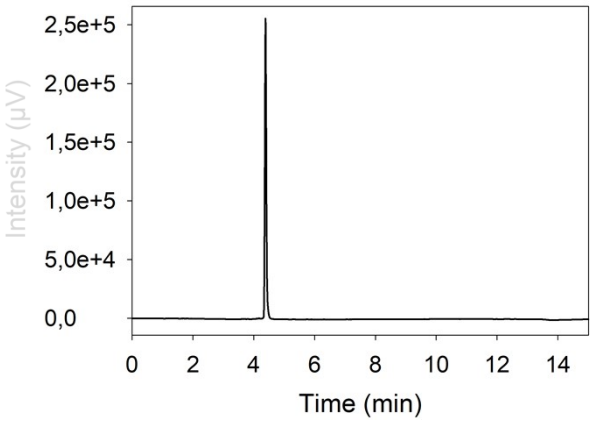
8e+5
6e+5
4e+5
2e+5
0
Intensity (µV)
0
2
4
6
8
10
12
14
Time (min)

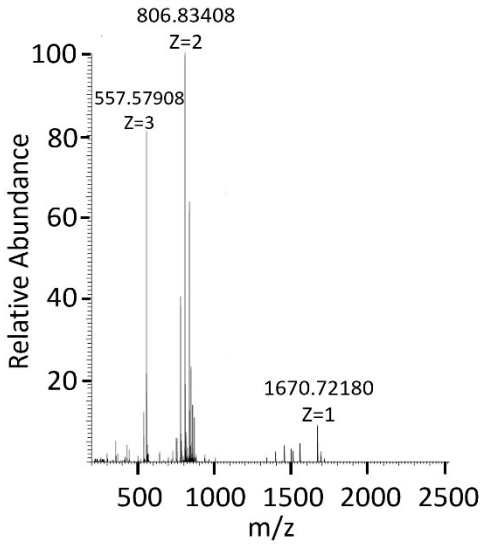

625.40997
Z=3
938.61924
Z=2
468.80526
Z=4
Relative Abundance
100
80
60
40
20
500
1000
1500
2000
2500
m/z

P/M-**4**




11.9161
11.9069
11.7694
11.6366
11.4258
9.7268
8.6032
8.5924
8.1374
8.1022
8.0139
8.0034
7.9927
7.9791
7.9661
7.9339
7.9223
7.8867
7.8754
7.7040
7.5652
7.5588
7.5472
7.5372
7.5113
7.4999
7.3664
7.1321
6.8710
6.6984
6.5689
6.4561
3.7296
3.7218
3.6702
3.6603
3.6107
3.5845
3.5038
3.4946
3.4756
3.4592
3.4525
3.3636
3.3529
3.3422
3.2172
3.2066
2.6200
2.6110
2.6021
2.5059
1.9316
1.3020
1.2915
1.2809
0.6687
0.6495
[rel]
0.8026
0.8710
0.8115
1.0000
2.1124
0.9070
1.0541
0.9121
1.1307
1.0925
11.6828
1.3826
1.1176
4.8718
7.1618
3.6551
[ppm]


2,5e+5
2,0e+5
1,5e+5
1,0e+5
5,0e+4
0,0
Intensity (µV)
0
2
4
6
8
10
12
14
Time (min)


806.83408
Z=2
557.57908
Z=3
1670.72180
Z=1
Relative Abundance
100
80
60
40
20
500
1000
1500
2000
2500
m/z