

## Supporting Information

### Modular Design of Membrane Active Antibiotics: From Macromolecular Antimicrobials to Small Scorpion-like Peptidomimetics

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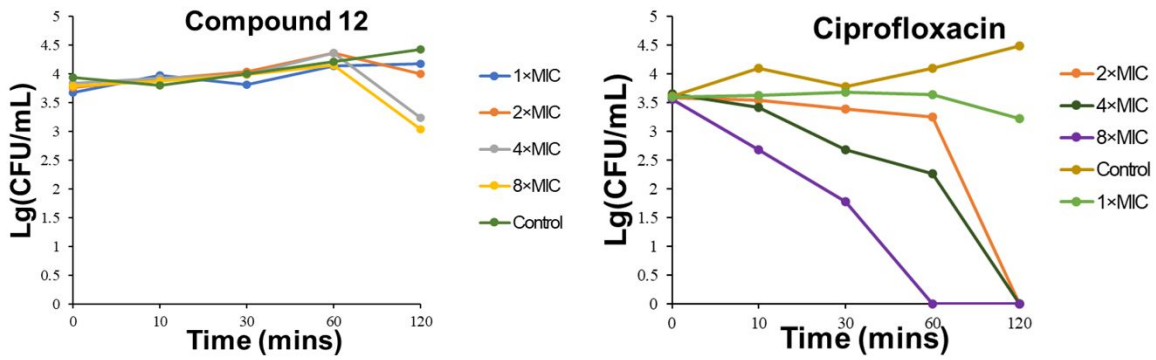
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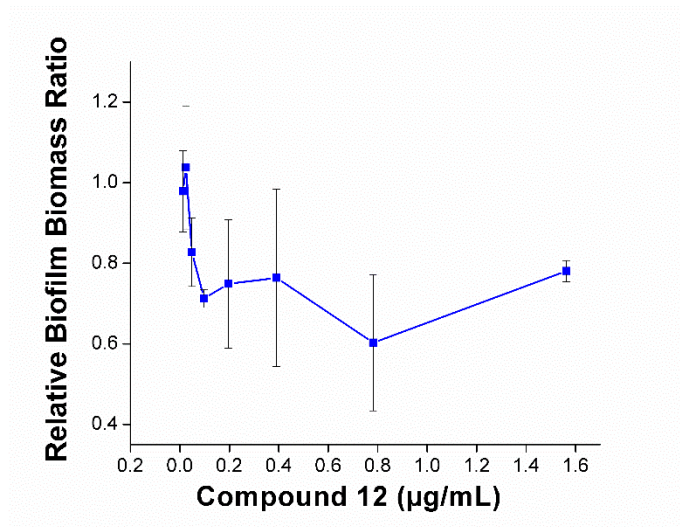
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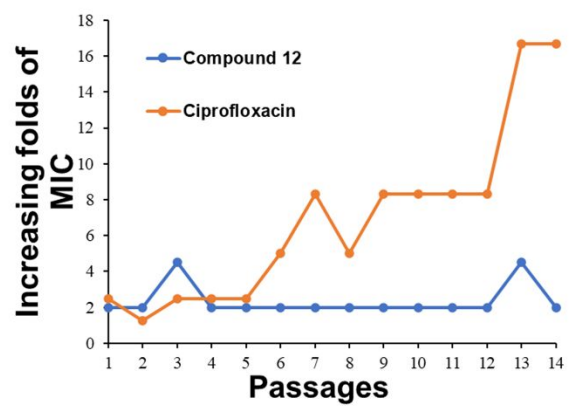
Time-kill kinetics of compound <b>12</b> and ciprofloxacin against <i>E. coli</i> .....	S2
<i>E. coli</i> biofilm inhibition by compound <b>12</b> .....	S2
Drug resistance study of compound <b>12</b> against <i>E. coli</i> .....	S3
<sup>1</sup> H NMR, <sup>13</sup> C NMR and HPLC traces of intermediates and compounds .....	S4-S35



**Figure S1.** Time-kill Time-kill kinetic curves of compound 12 and ciprofloxacin. Controls were untreated MRSA.

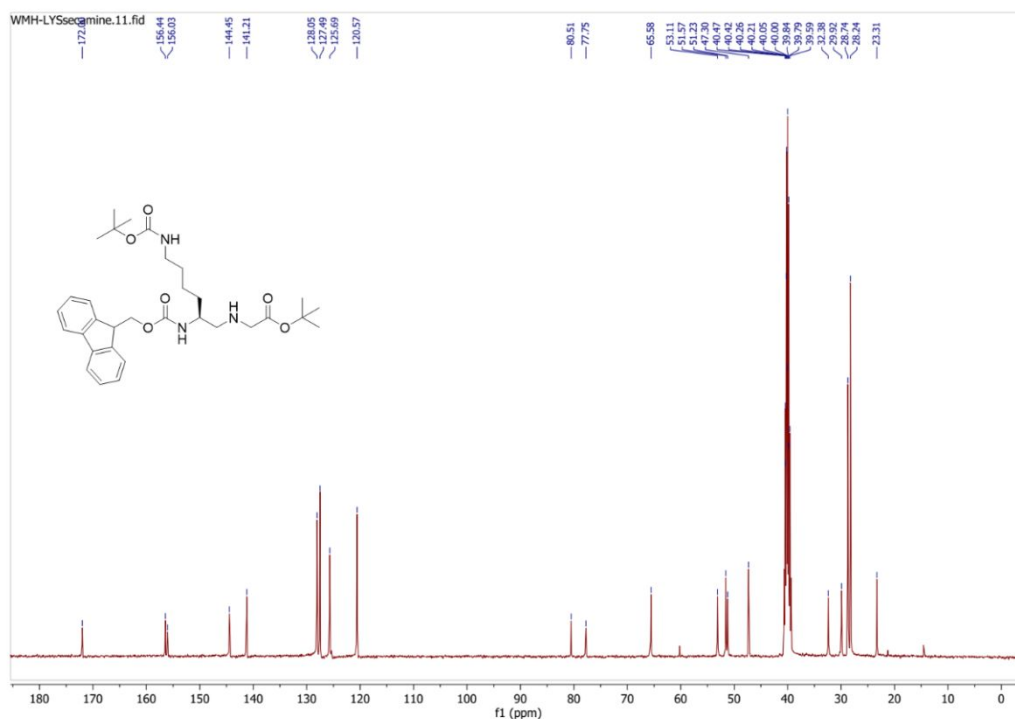
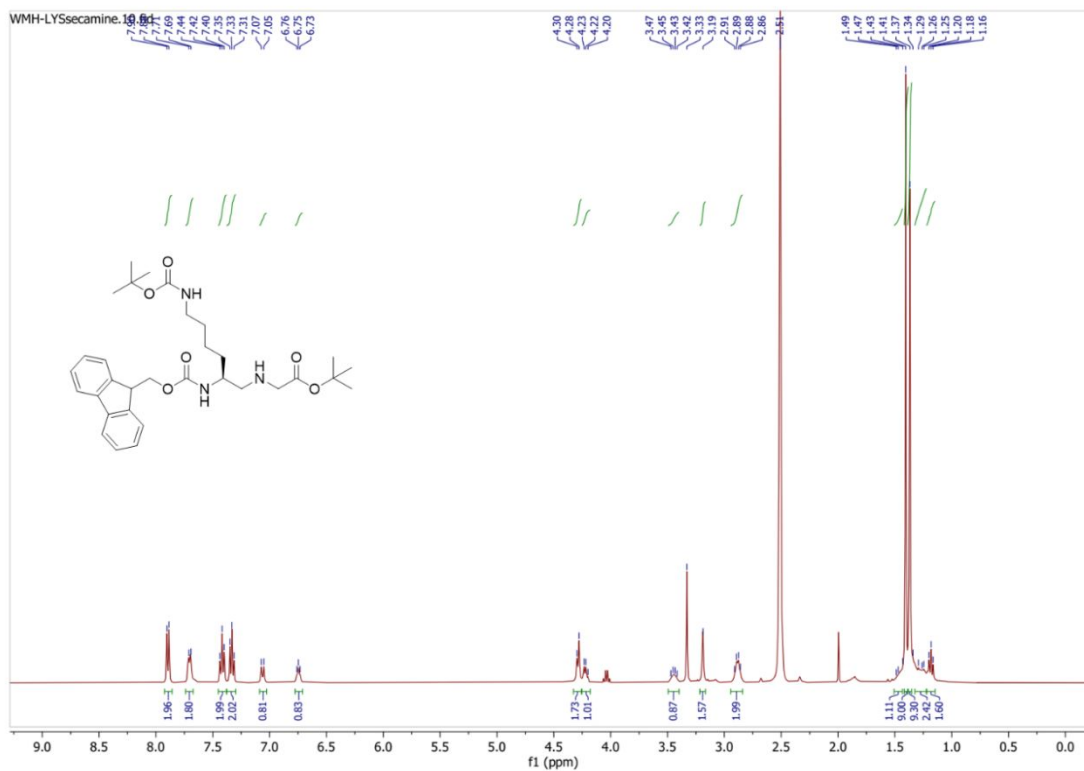


**Figure S2.** MRSA biofilm inhibition by compound 12.

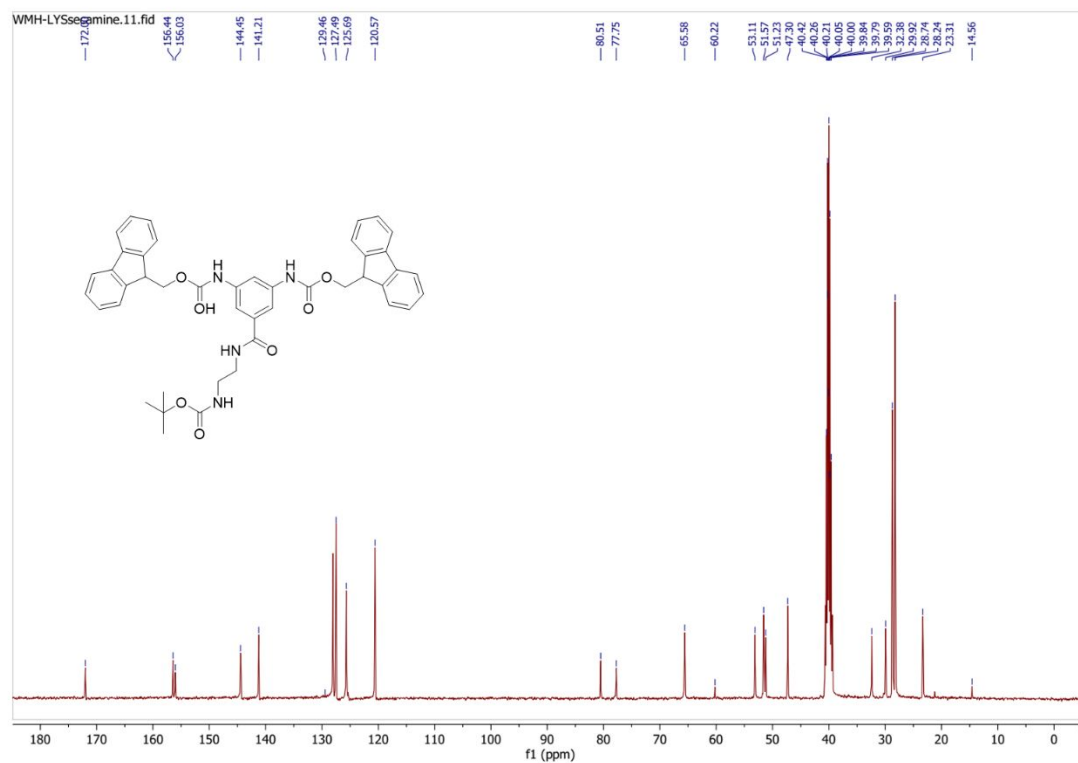
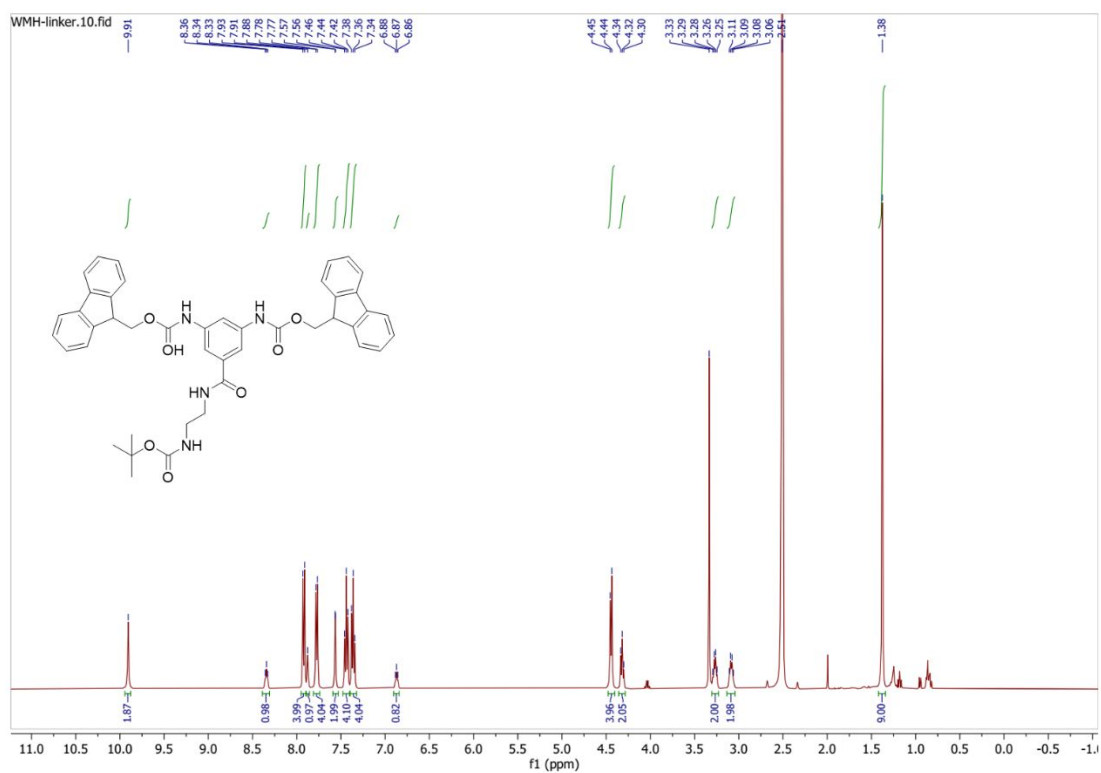


**Figure S3.** Propensity of developing drug resistance of compound 12 and ciprofloxacin against *E. coli*.

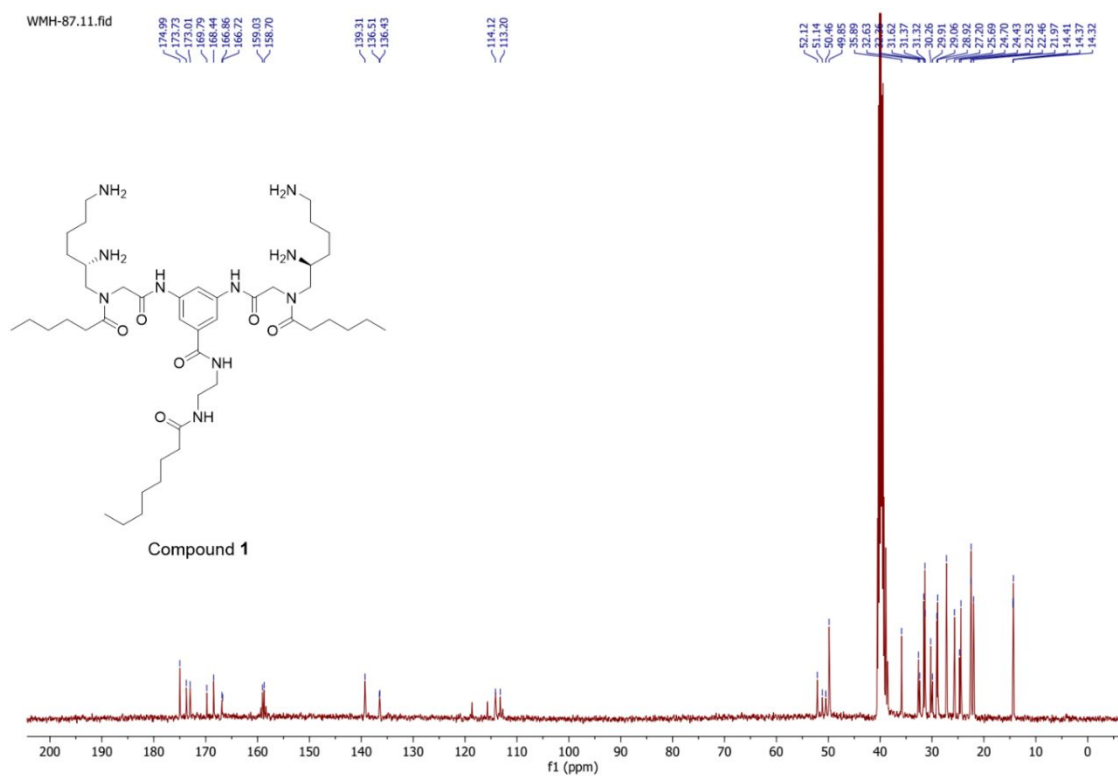
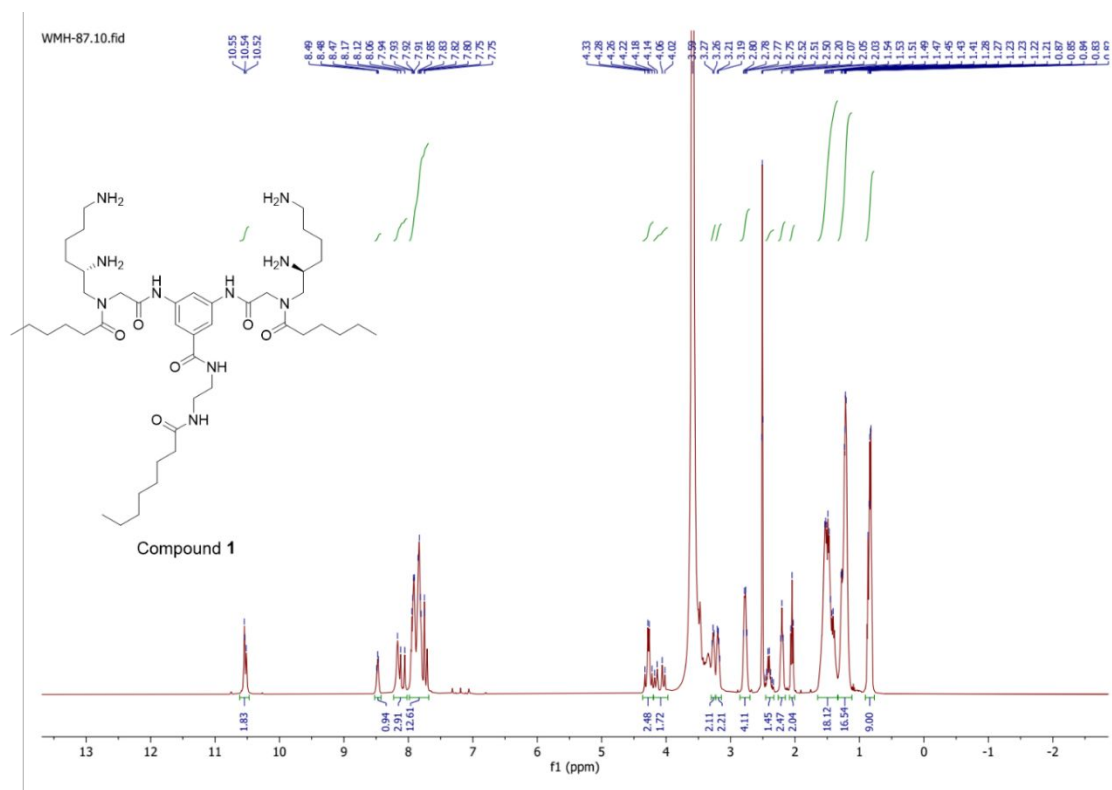
*tert*-Butyl(S)-(2-(((9H-fluoren-9-yl)methoxy)carbonyl)amino)-6-((*tert*-butoxycarbonyl)amino)hexyl) glycinate.

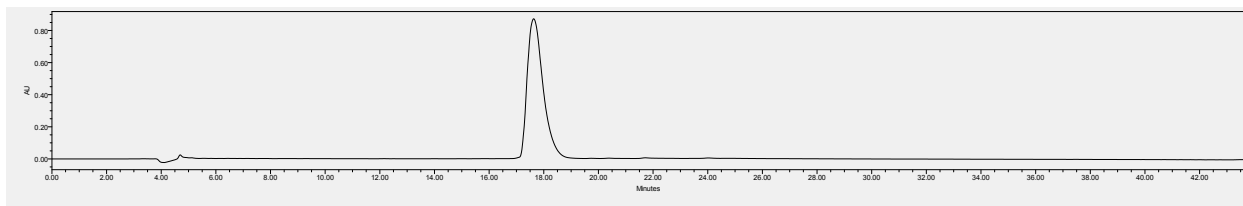


Di(9H-fluoren-9-yl)(5-((2-((tert-butoxycarbonyl) amino)ethyl)carbamoyl)-1,3-phenylene)dicarbamate.

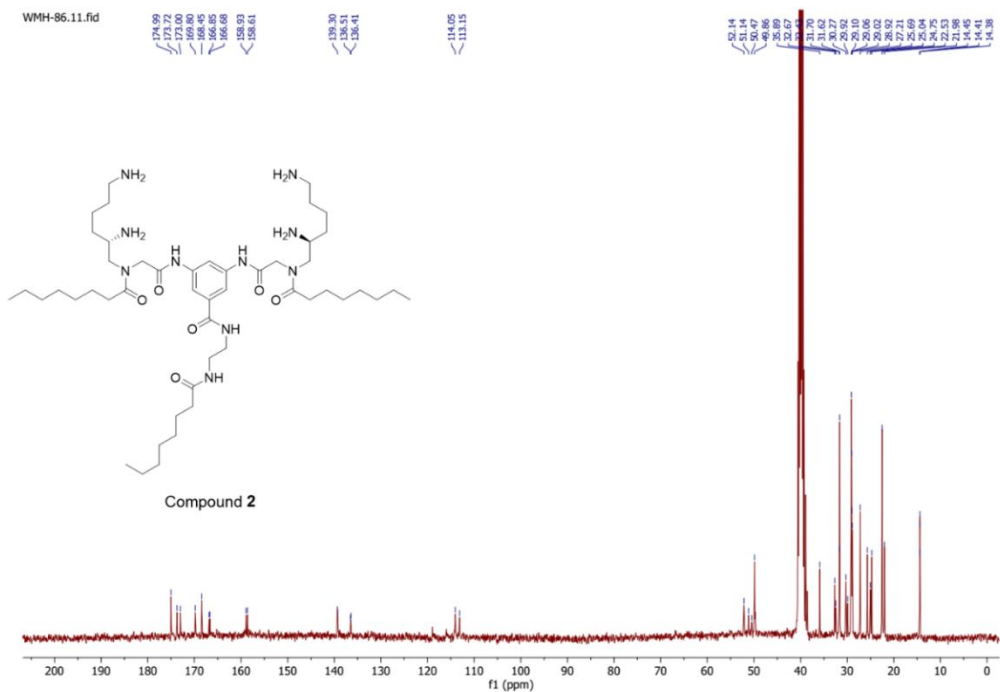
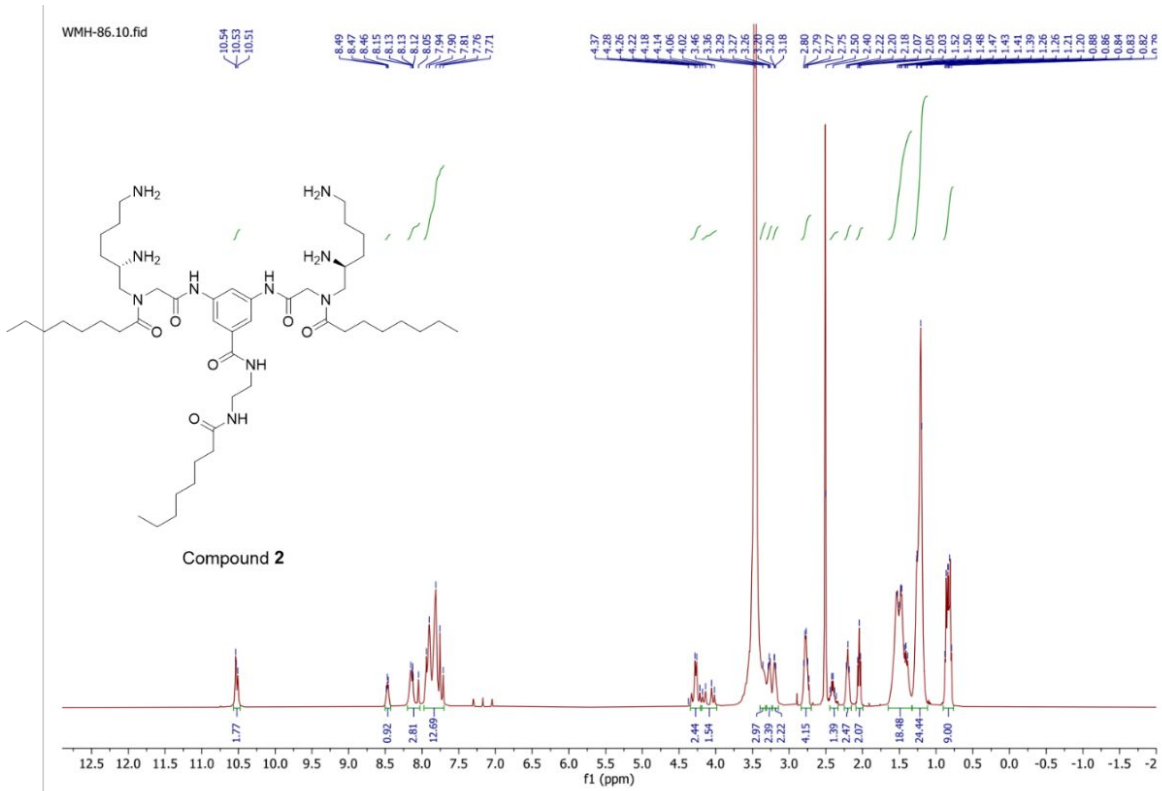


*N,N'*-(((5-((2-octanamidoethyl)carbamoyl)-1,3-phenylene)bis(azanediy))bis(2-oxoethane-2,1-diy))bis(*N*-((*S*)-2,6-diaminohexyl)hexanamide) (**1**).

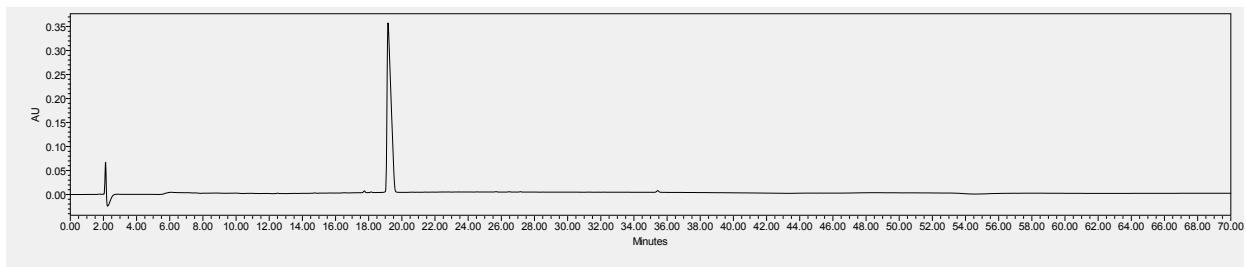




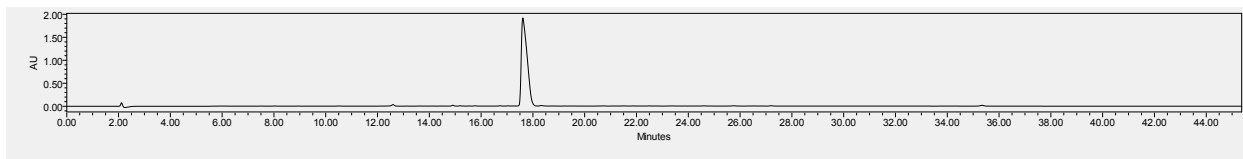
*N,N'*-(((5-((2-octanamidoethyl)carbamoyl)-1,3-phenylene)bis(azanediyl))bis(2-oxoethane-2,1-diy))bis(*N*-((*S*)-2,6-diaminohexyl)octanamide) (**2**).



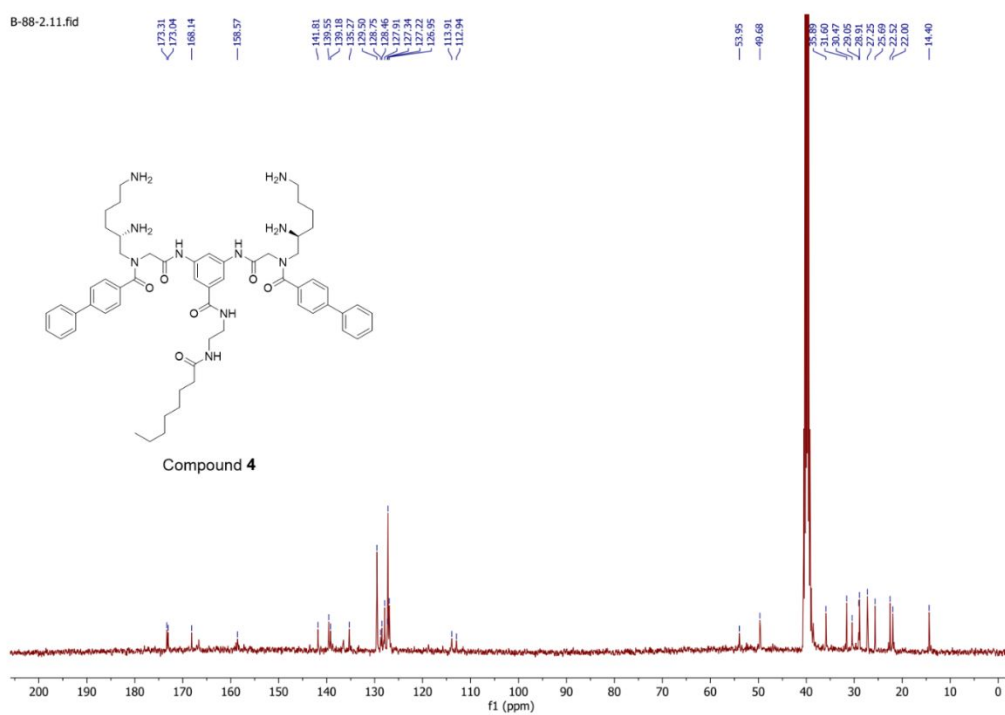
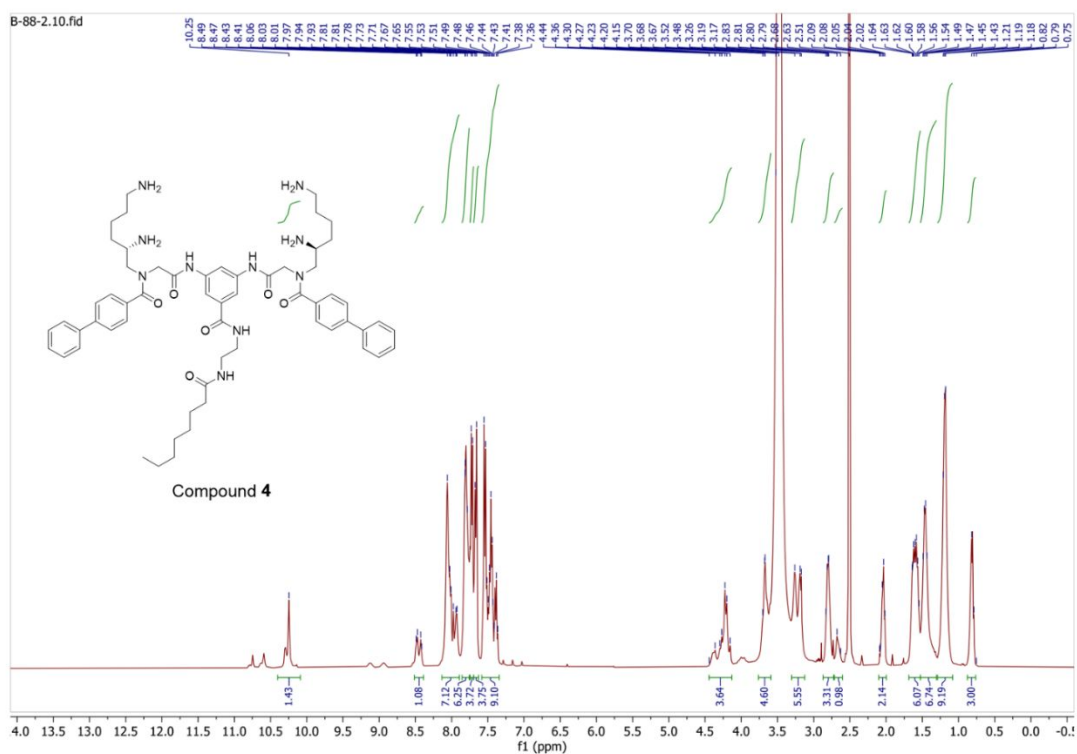


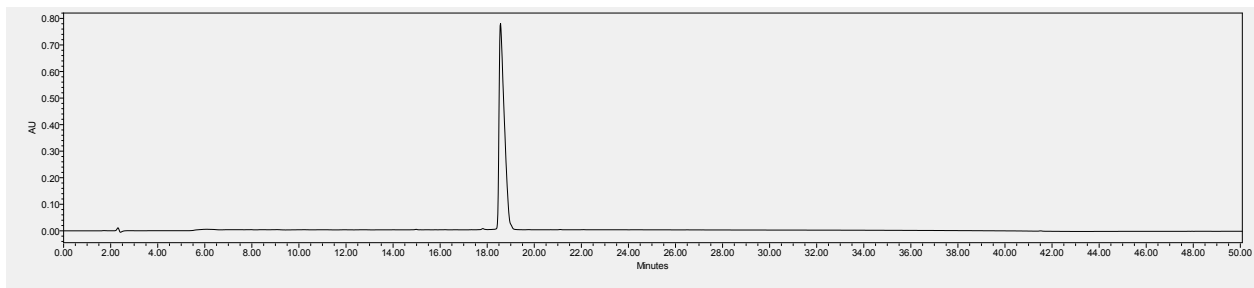




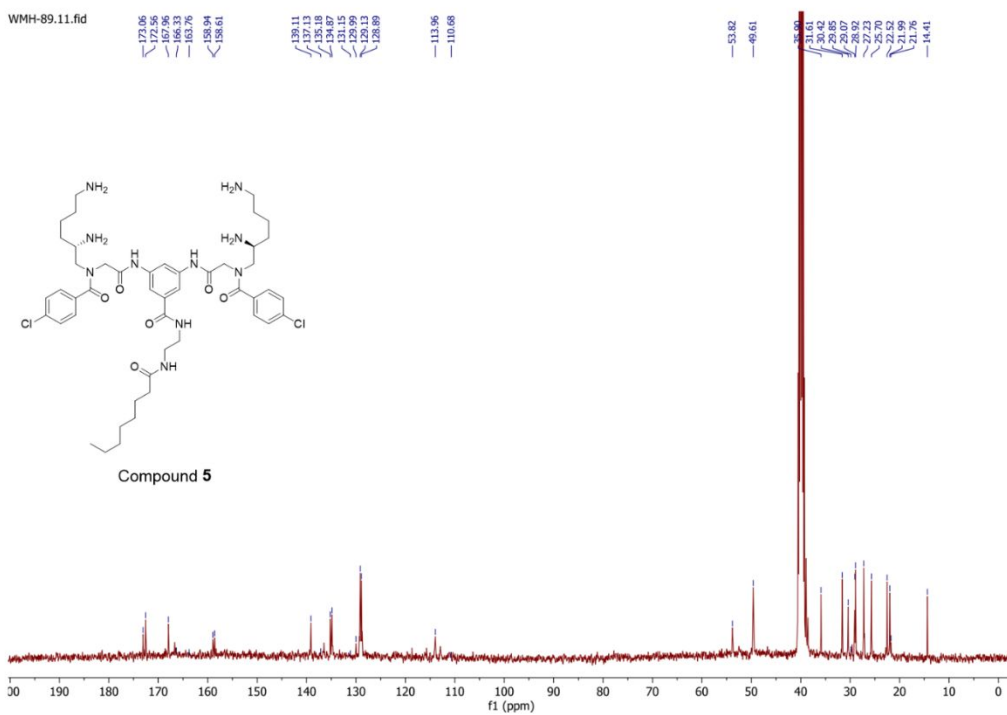
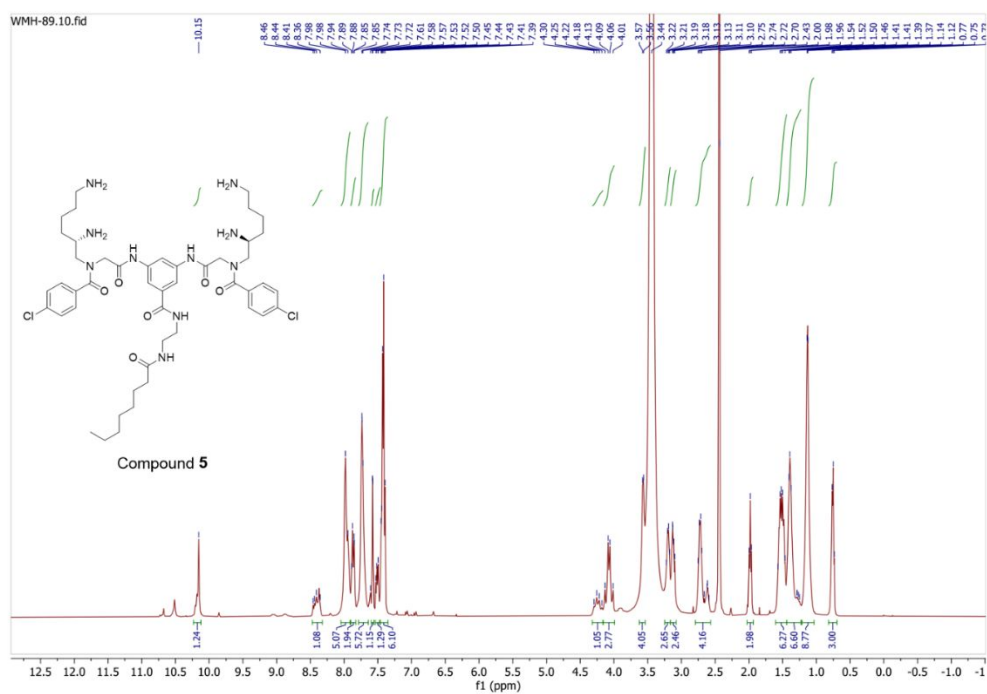


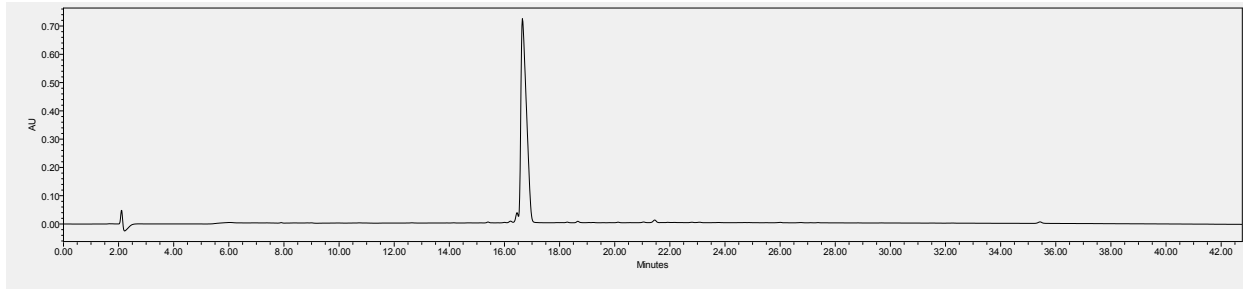
*N,N'*-(((5-((2-octanamidoethyl)carbamoyl)-1,3-phenylene)bis(azanediy1))bis(2-oxoethane-2,1-diy1))bis(*N*-((*S*)-2,6-diaminohexyl)-[1,1'-biphenyl]-4-carboxamide) (**4**).



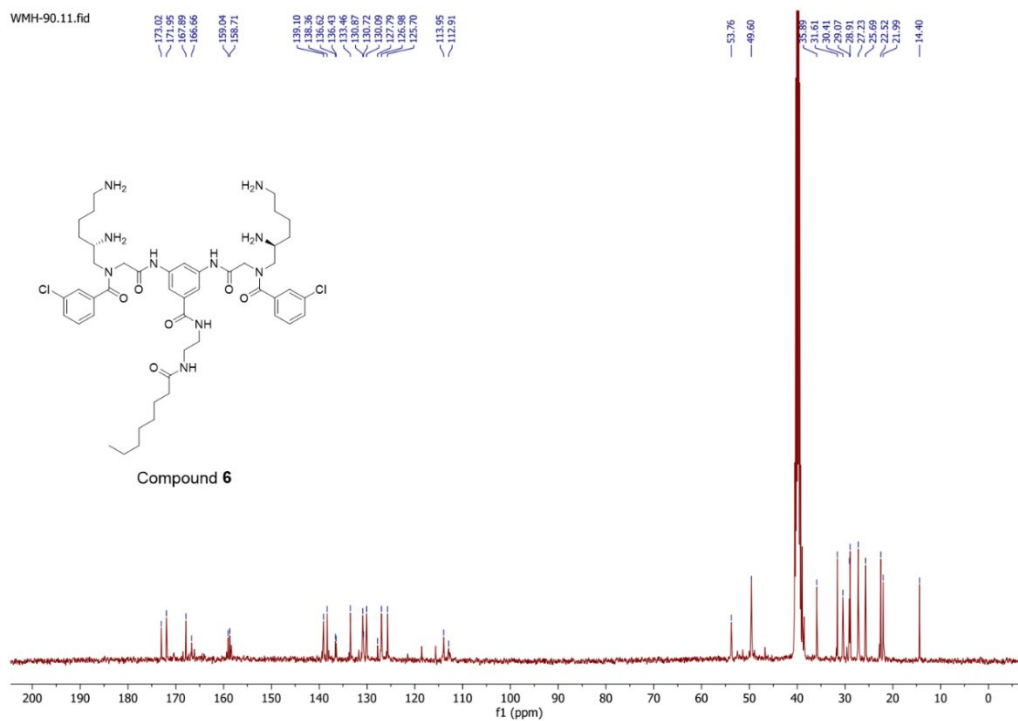
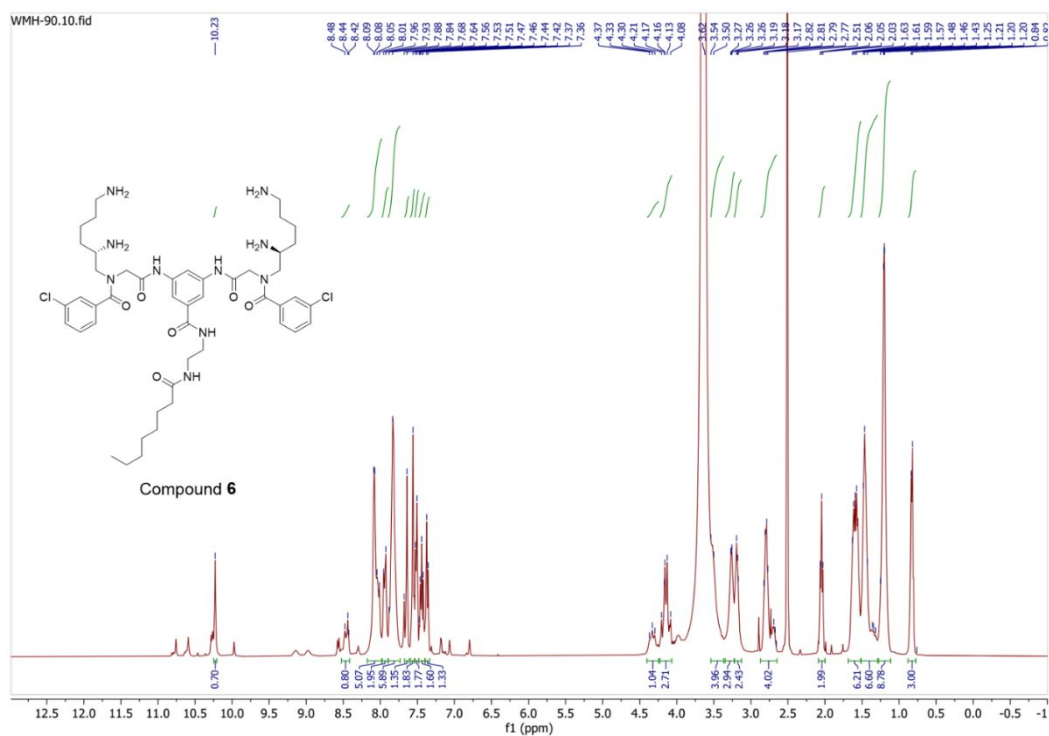


*N,N'*-(((5-((2-octanamidoethyl)carbamoyl)-1,3-phenylene)bis(azanediy))bis(2-oxoethane-2,1-diy))bis(4-chloro-*N*-((*S*)-2,6-diaminohexyl)benzamide) (**5**).

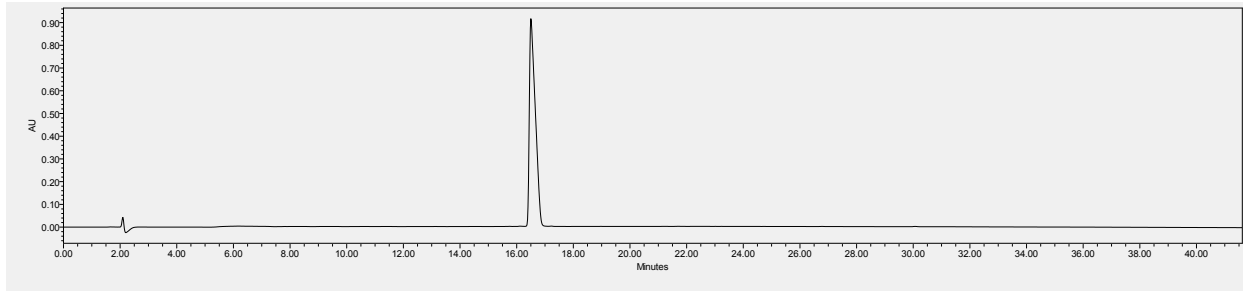




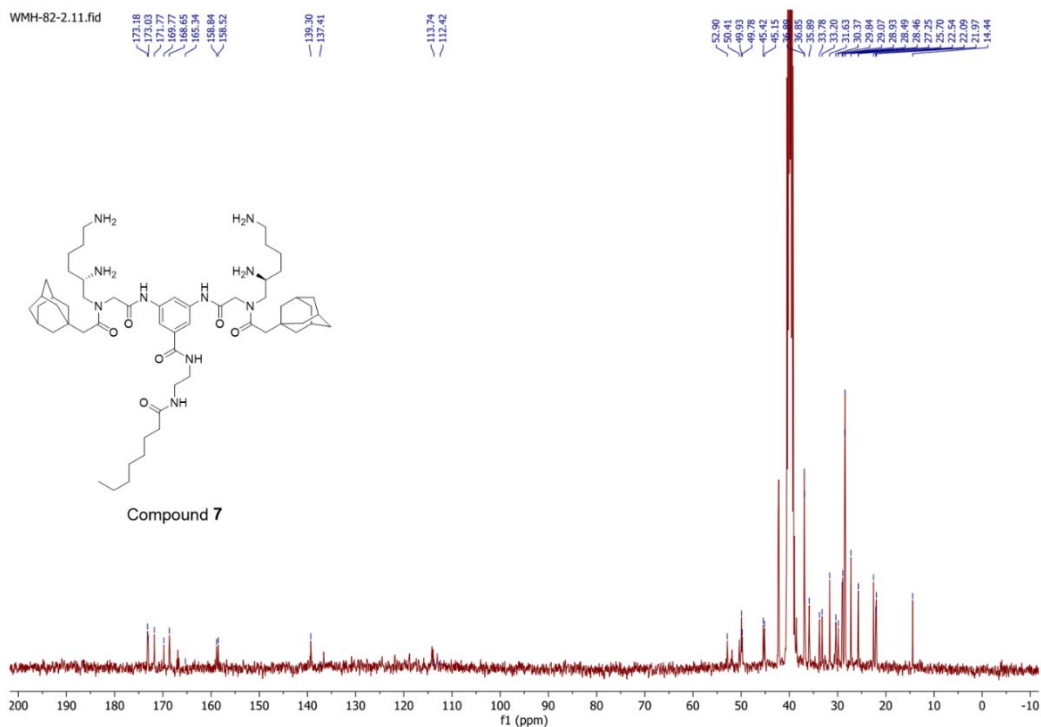
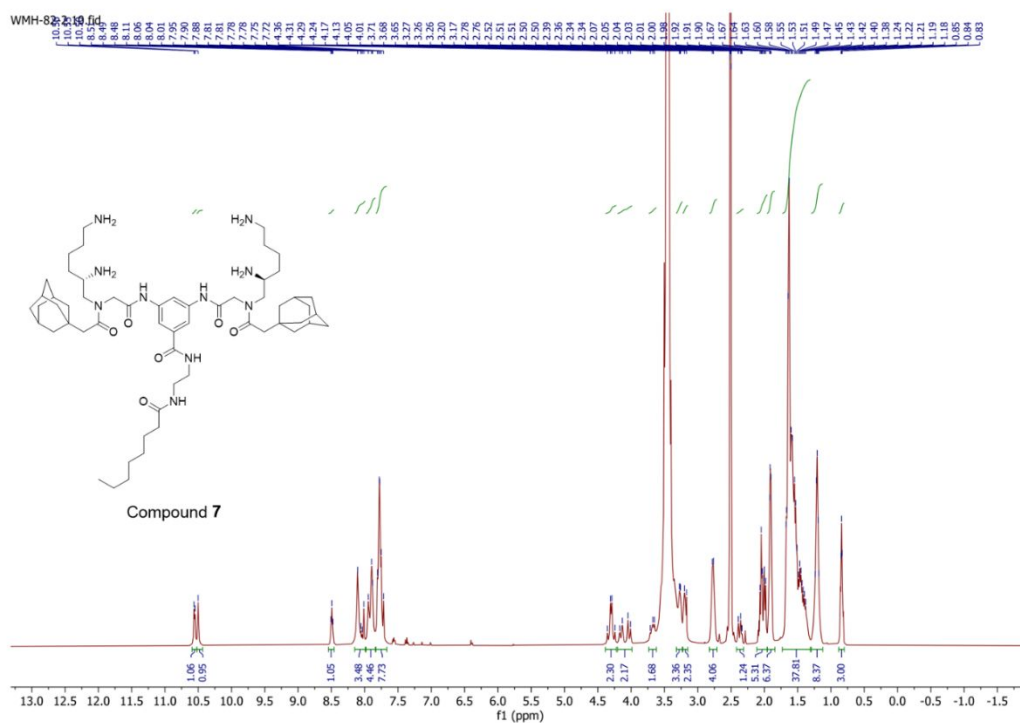
*N,N'*-(((5-((2-octanamidoethyl)carbamoyl)-1,3-phenylene)bis(azanediy1))bis(2-oxoethane-2,1-diy1))bis(3-chloro-*N*-((*S*)-2,6-diaminohexyl)benzamide) (**6**).

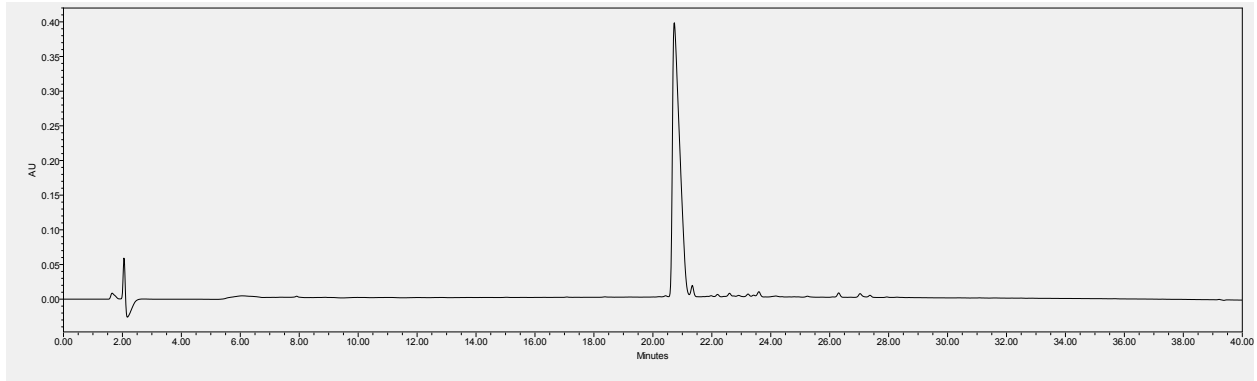




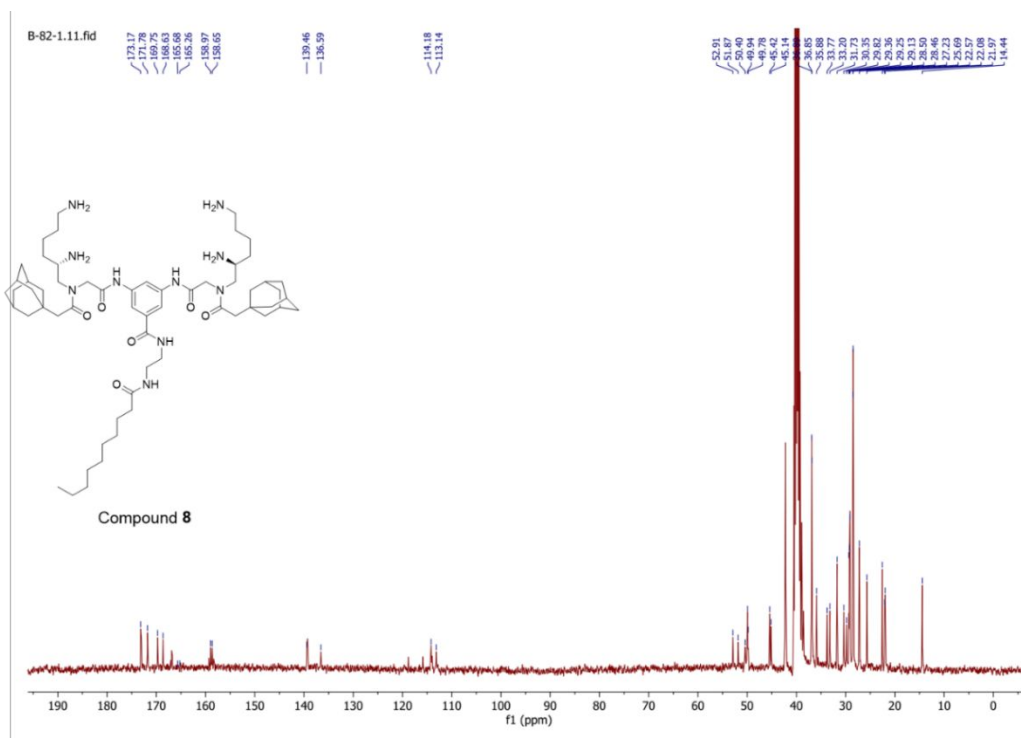
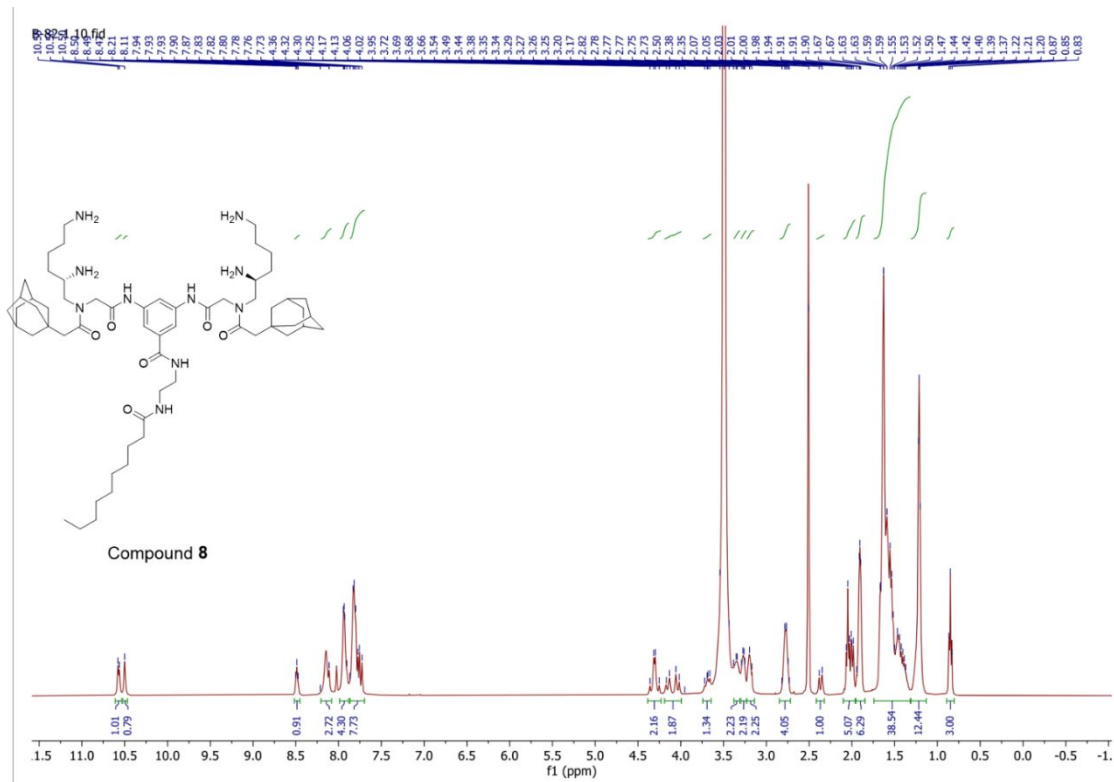


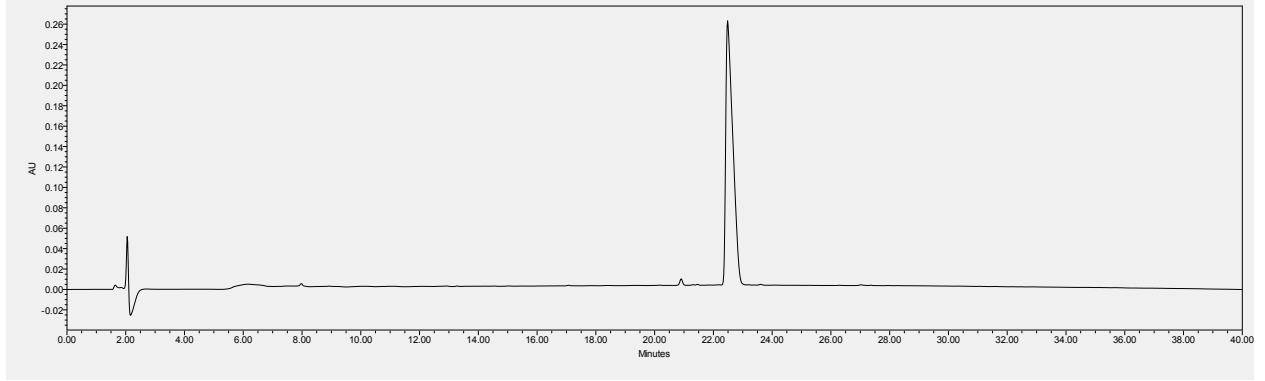
*N,N'*-(((5-((2-octanamidoethyl)carbamoyl)-1,3-phenylene)bis(azanediy))bis(2-oxoethane-2,1-diy))bis(2-((3*S*,5*S*,7*S*)-adamantan-1-yl)-*N*-((*S*)-2,6-diaminohexyl)acetamide) (7).



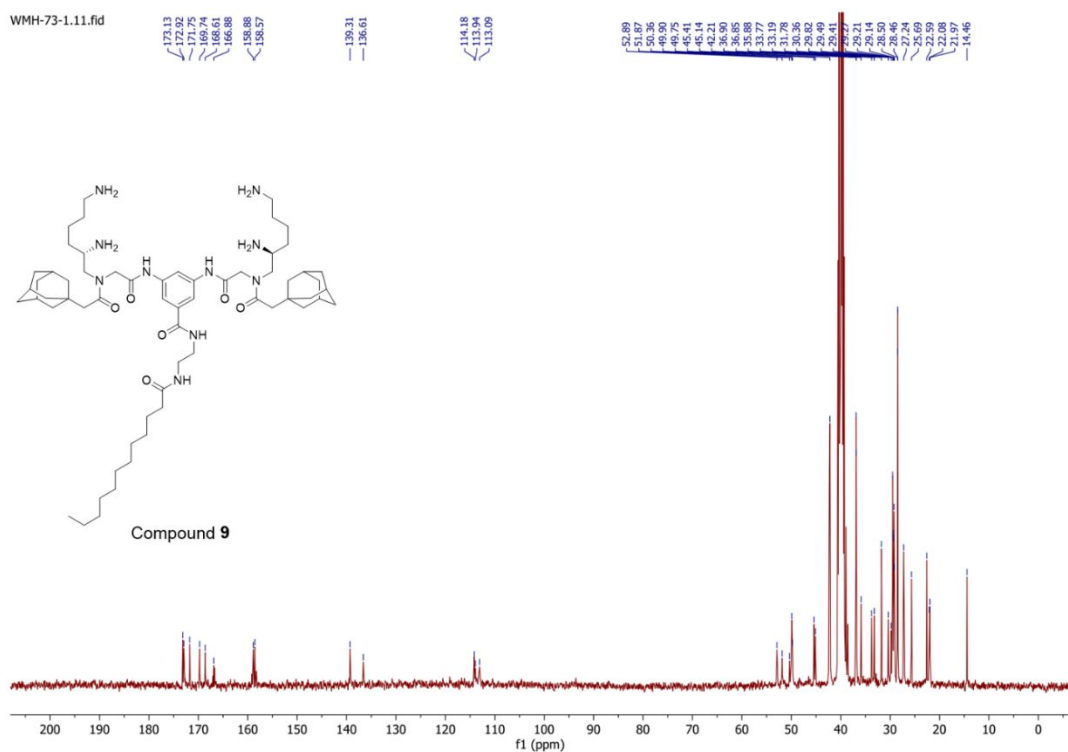
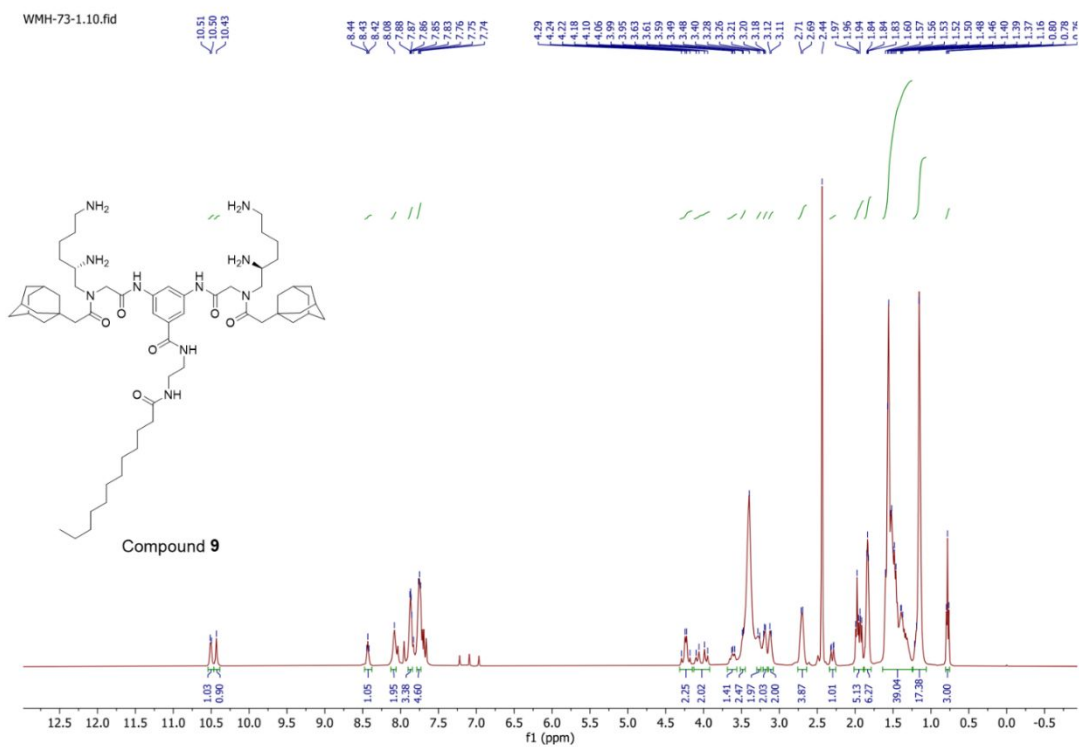


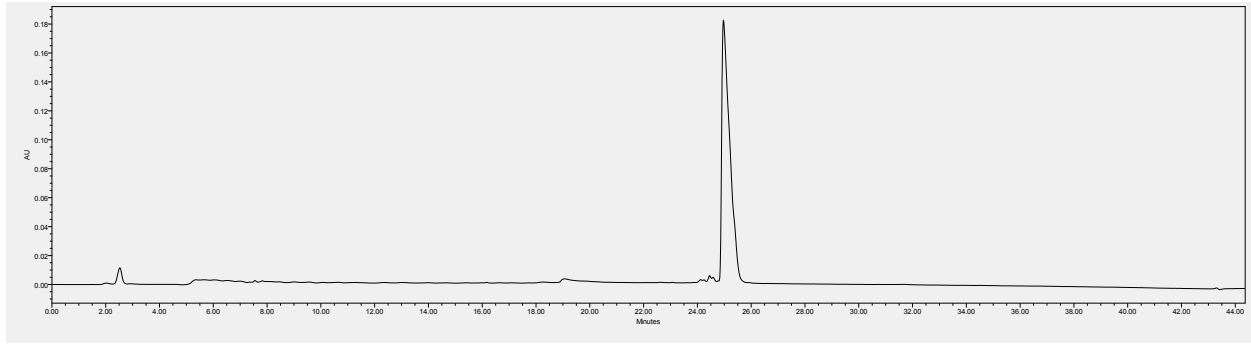
*N,N'*-(((5-((2-decanamidoethyl)carbamoyl)-1,3-phenylene)bis(azanediyl))bis(2-oxoethane-2,1-diy))bis(2-((3*S*,5*S*,7*S*)-adamantan-1-yl)-*N*-((*S*)-2,6-diaminohexyl)acetamide) (**8**).



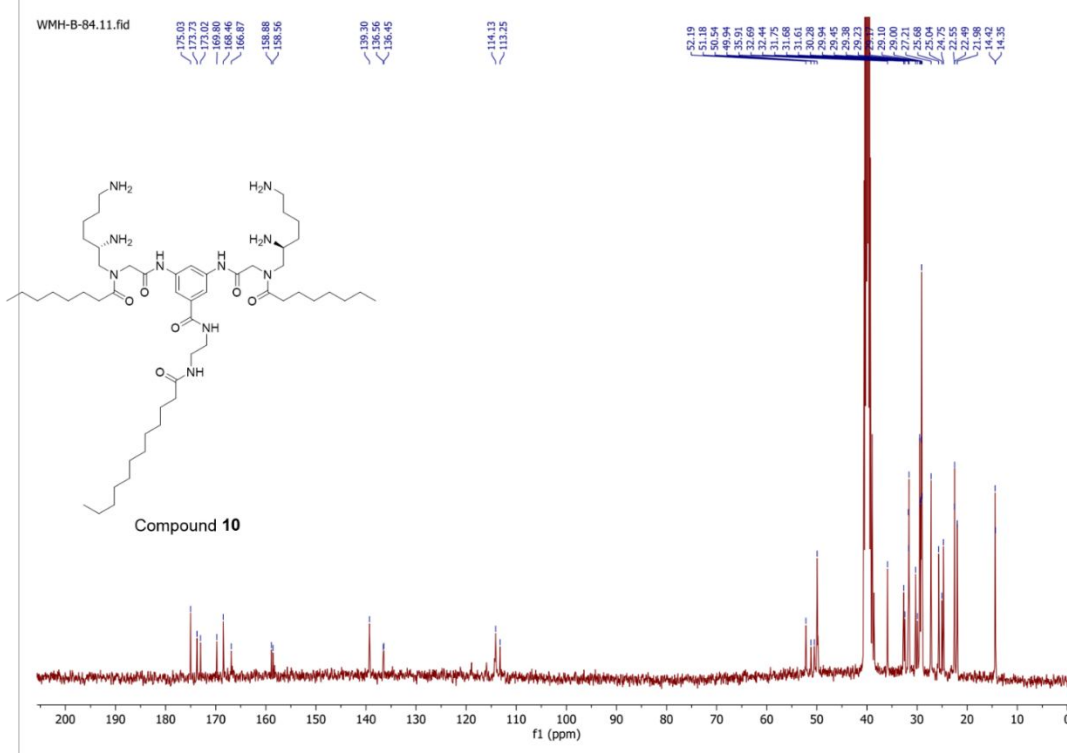
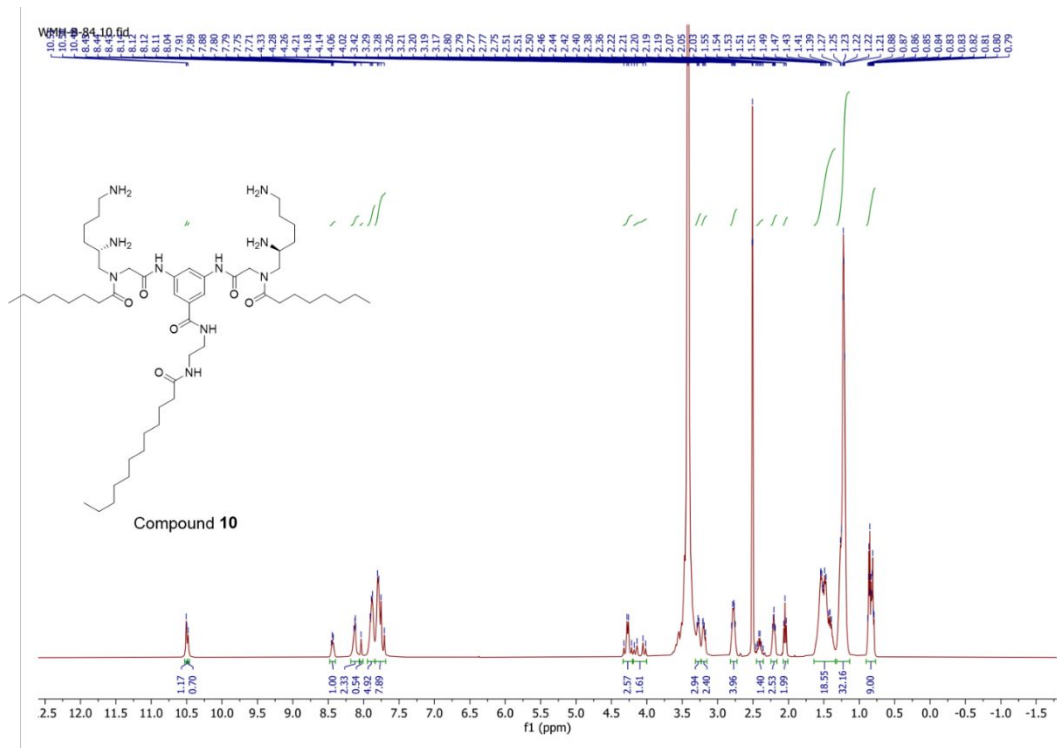


*N,N'*-(((5-((2-dodecanamidoethyl)carbamoyl)-1,3-phenylene)bis(azanediy))bis(2-oxoethane-2,1-diy))bis(2-((3*S*,5*S*,7*S*)-adamantan-1-yl)-*N*-((*S*)-2,6-diaminohexyl)acetamide) (**9**).

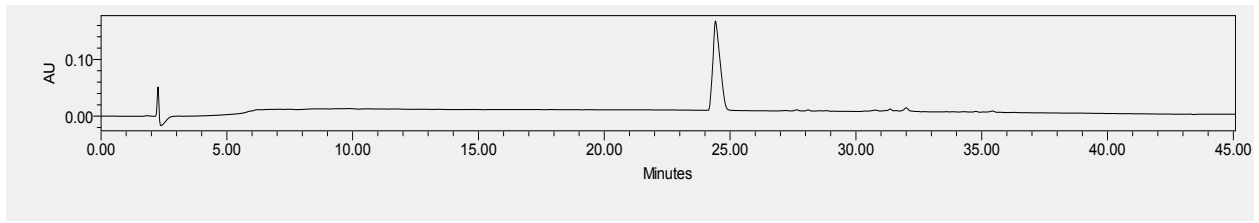




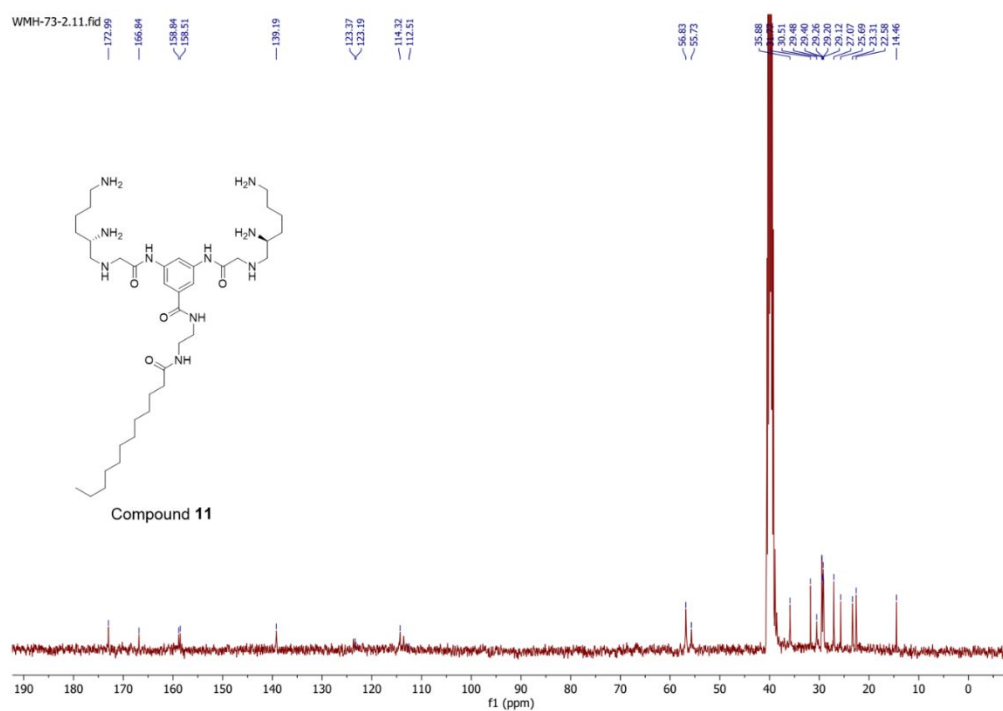
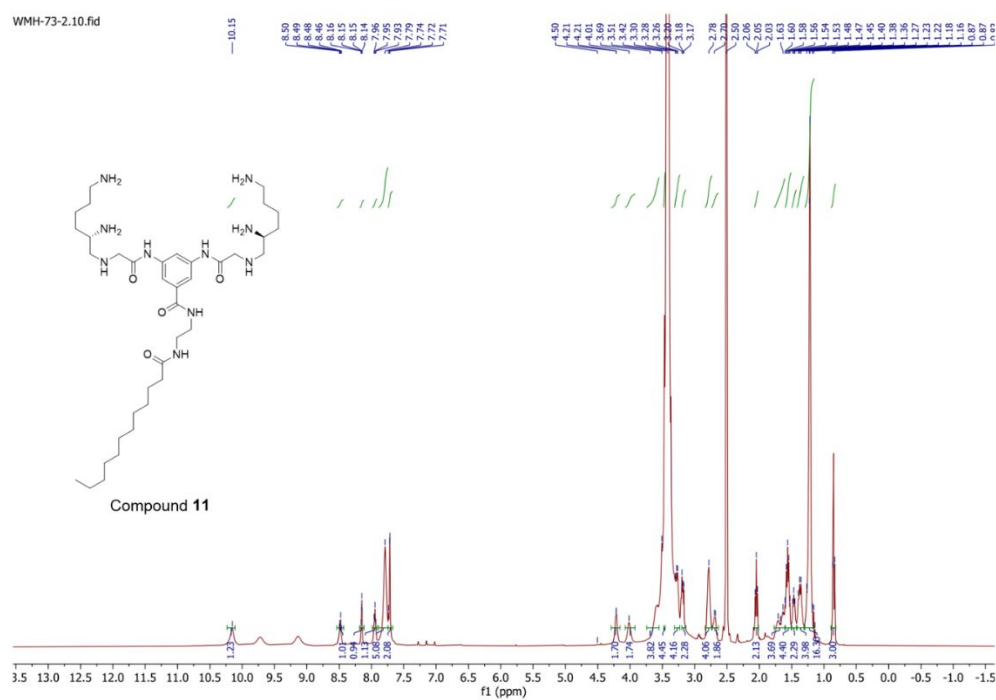
*N,N'*-(((5-((2-dodecanamidoethyl)carbamoyl)-1,3-phenylene)bis(azanediy))bis(2-oxoethane-2,1-diy))bis(*N*-((*S*)-2,6-diaminohexyl)octanamide) (**10**).

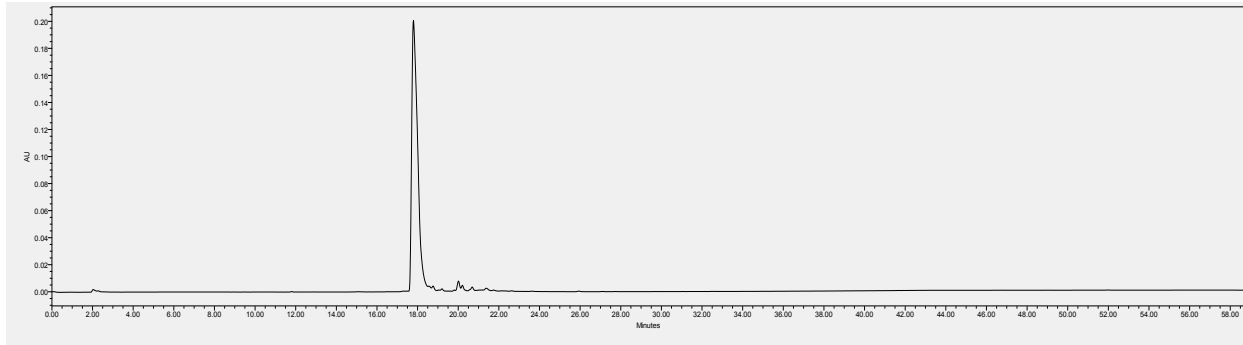




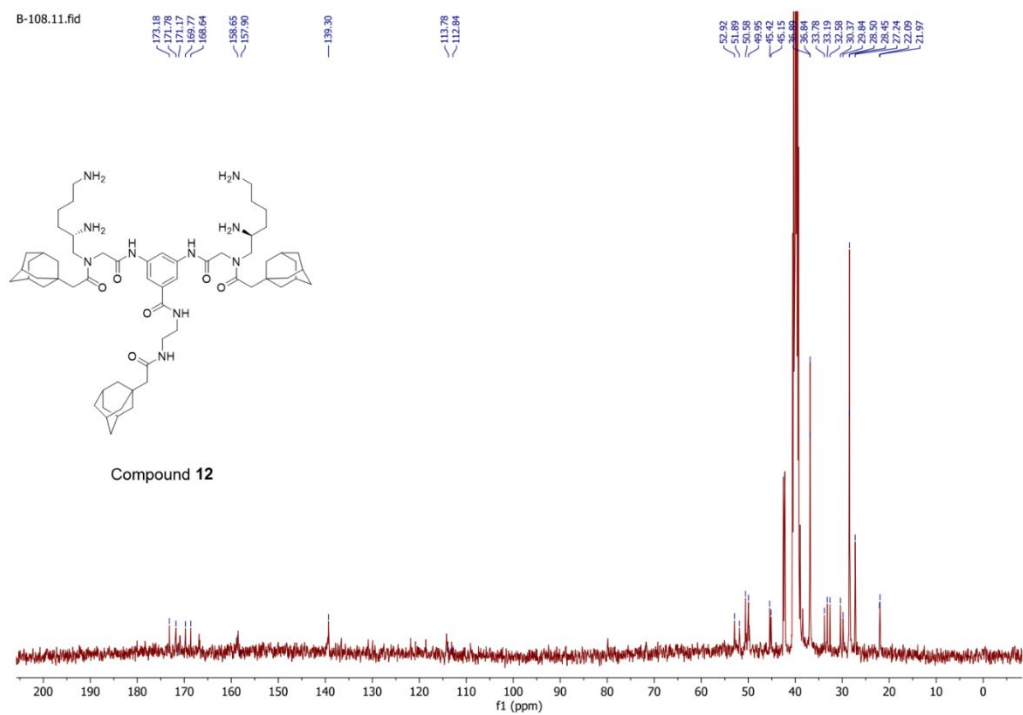
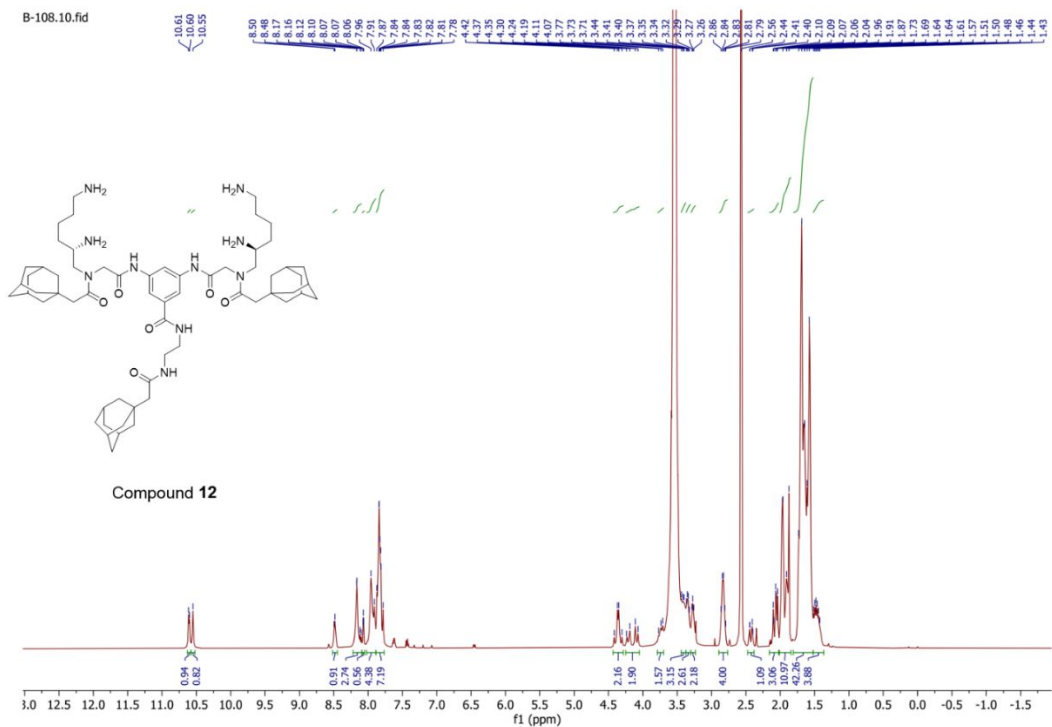


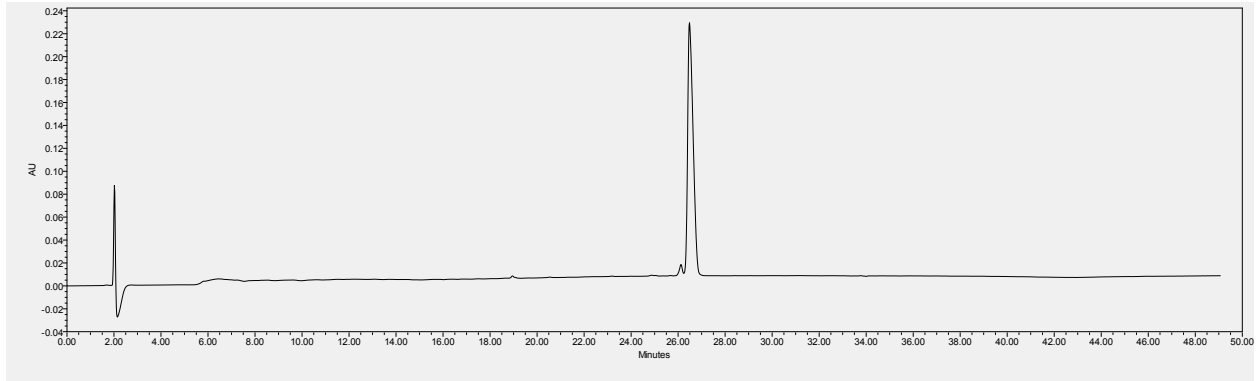
*N,N'*-(5-((2-dodecanamidoethyl)carbamoyl)-1,3-phenylene)bis(2-(((S)-2,6-diaminohexyl)amino)acetamide) (**11**).



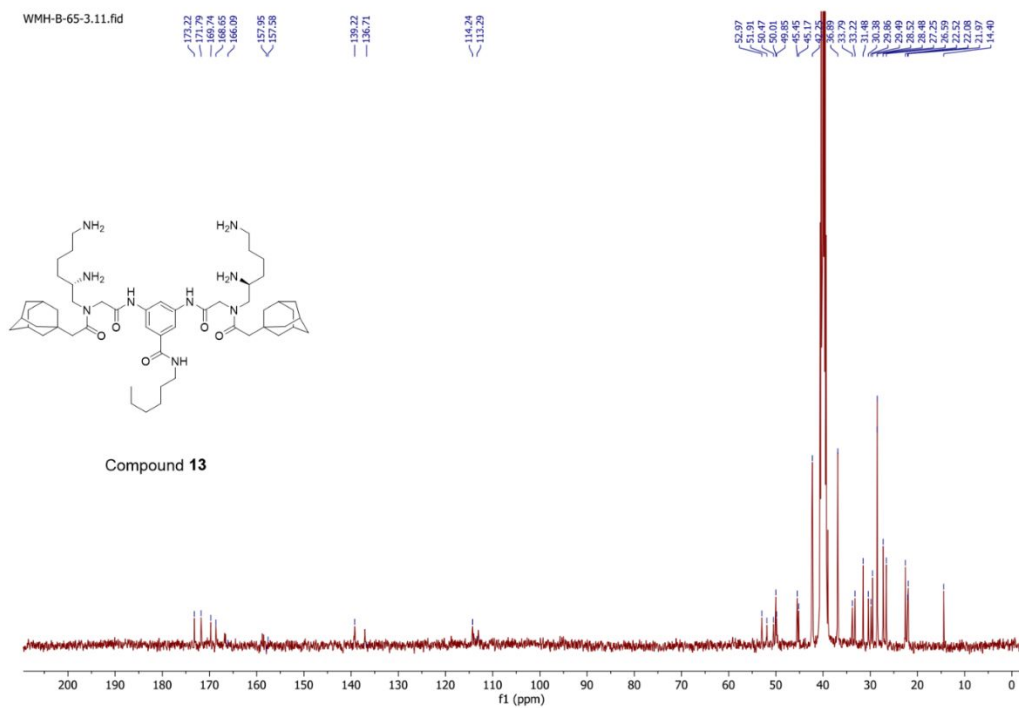
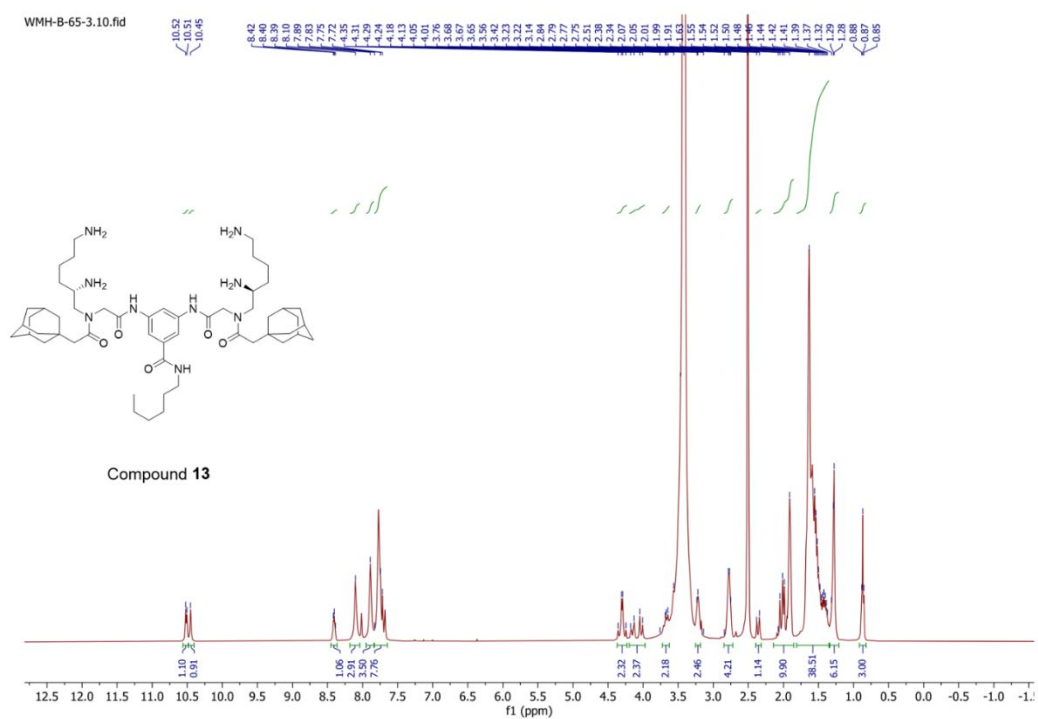


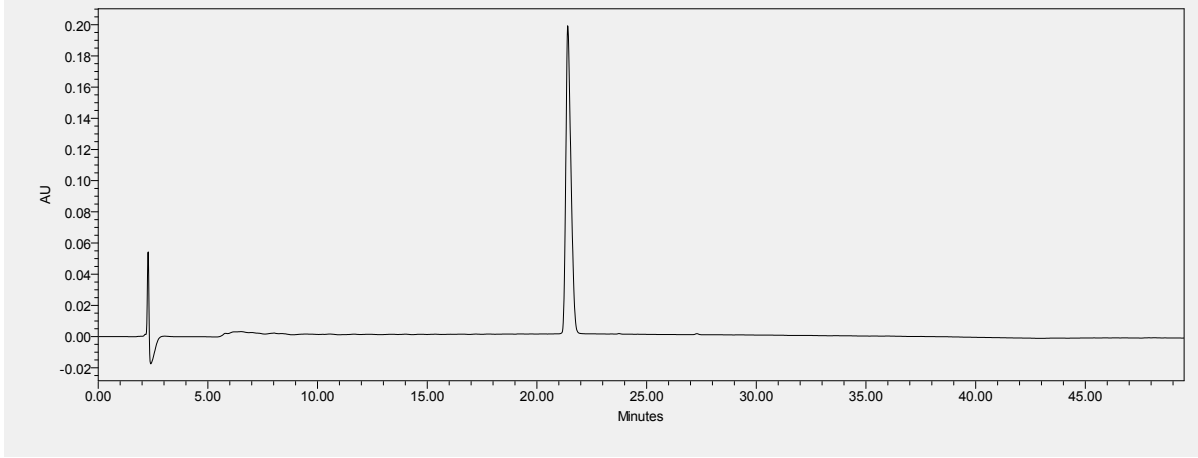
*N,N'*-(((5-((2-(2-((1*s*,3*s*)-adamantan-1-yl)acetamido)ethyl)carbamoyl)-1,3-phenylene)bis(azanediy))bis(2-oxoethane-2,1-diyl))bis(2-((3*S*,5*S*,7*S*)-adamantan-1-yl)-*N*-((*S*)-2,6-diaminohexyl)acetamide) (**12**).



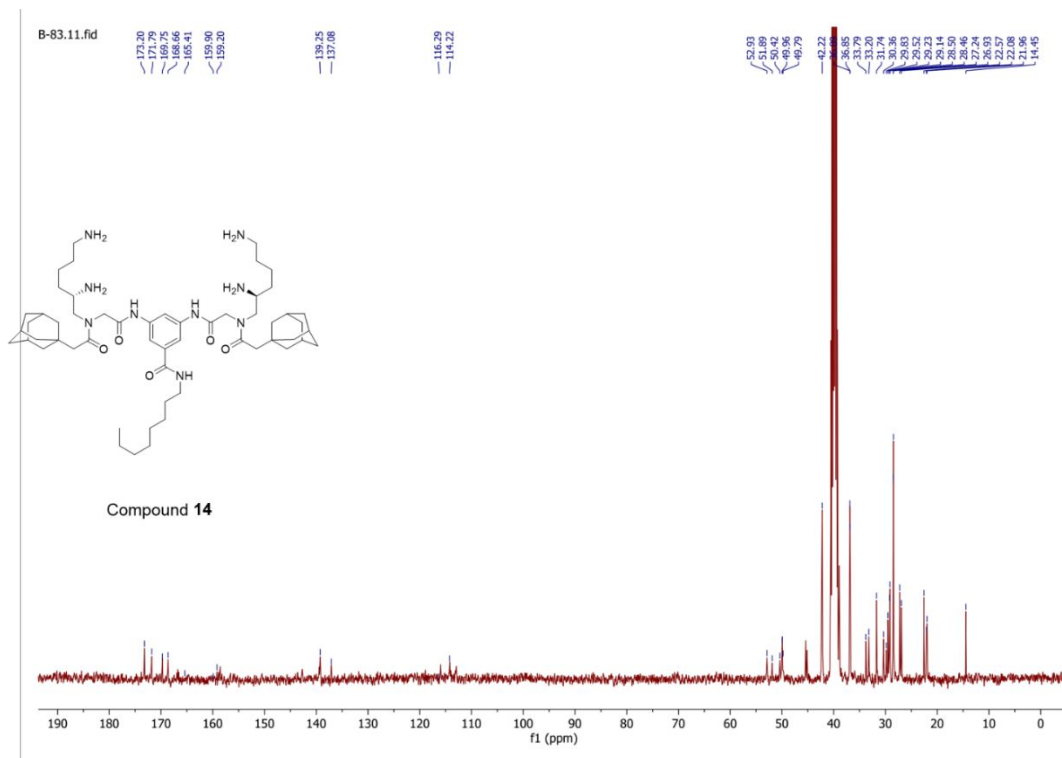
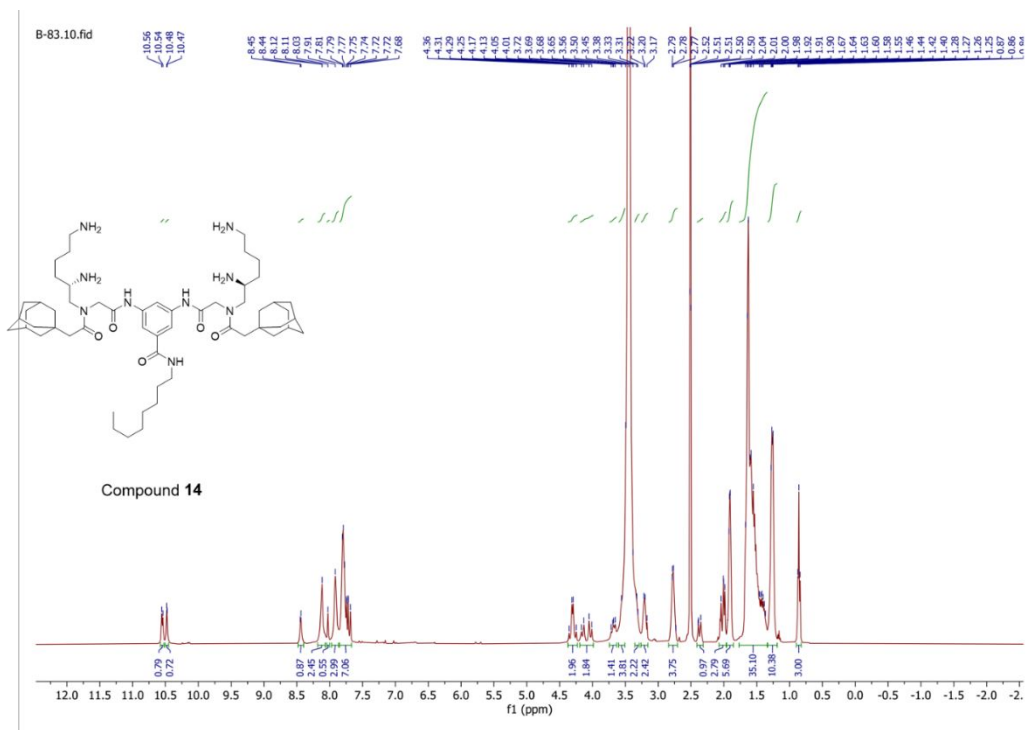


*N,N'*-(((5-(hexylcarbamoyl)-1,3-phenylene)bis(azanediy))bis(2-oxoethane-2,1-diyl))bis(2-((3*S*,5*S*,7*S*)-adamantan-1-yl)-*N*-((*S*)-2,6-diaminohexyl)acetamide) (**13**).

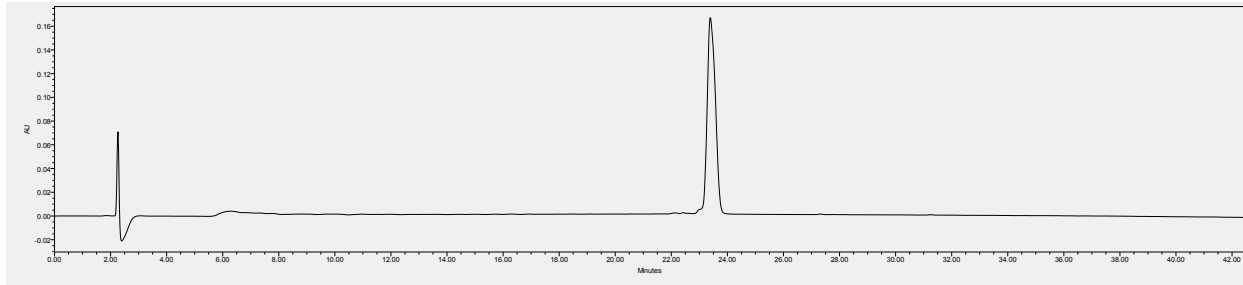




*N,N'*-(((5-(octylcarbamoyl)-1,3-phenylene)bis(azanediy))bis(2-oxoethane-2,1-diyl))bis(2-((3*S*,5*S*,7*S*)-adamantan-1-yl)-*N*-((*S*)-2,6-diaminohexyl)acetamide) (**14**).







*N,N'*-(((5-(decylcarbamoyl)-1,3-phenylene)bis(azanediy))bis(2-oxoethane-2,1-diyl))bis(2-((3*S*,5*S*,7*S*)-adamantan-1-yl)-*N*-((*S*)-2,6-diaminohexyl)acetamide) (**15**).

