



UNIVERSITAT DE
BARCELONA

Multitarget strategies in search of novel drug candidates against Alzheimer's disease

Caterina Pont Masanet



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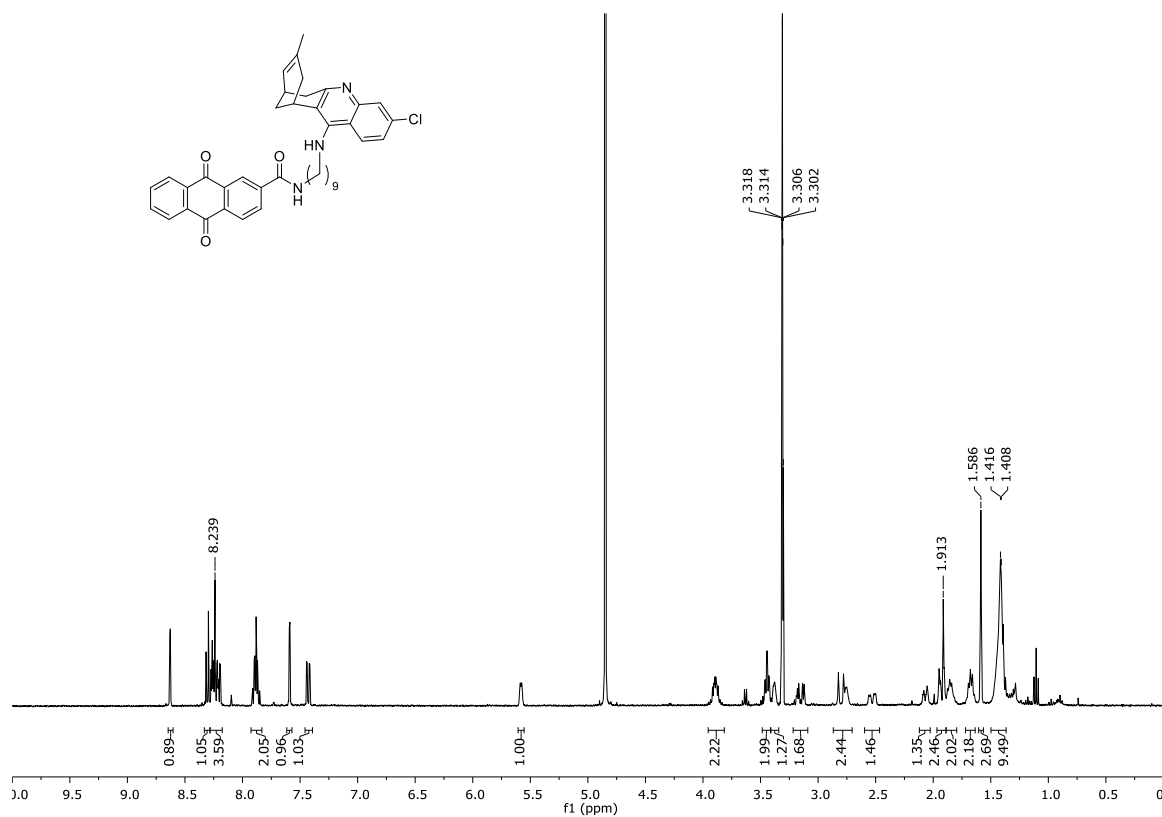
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ANNEX

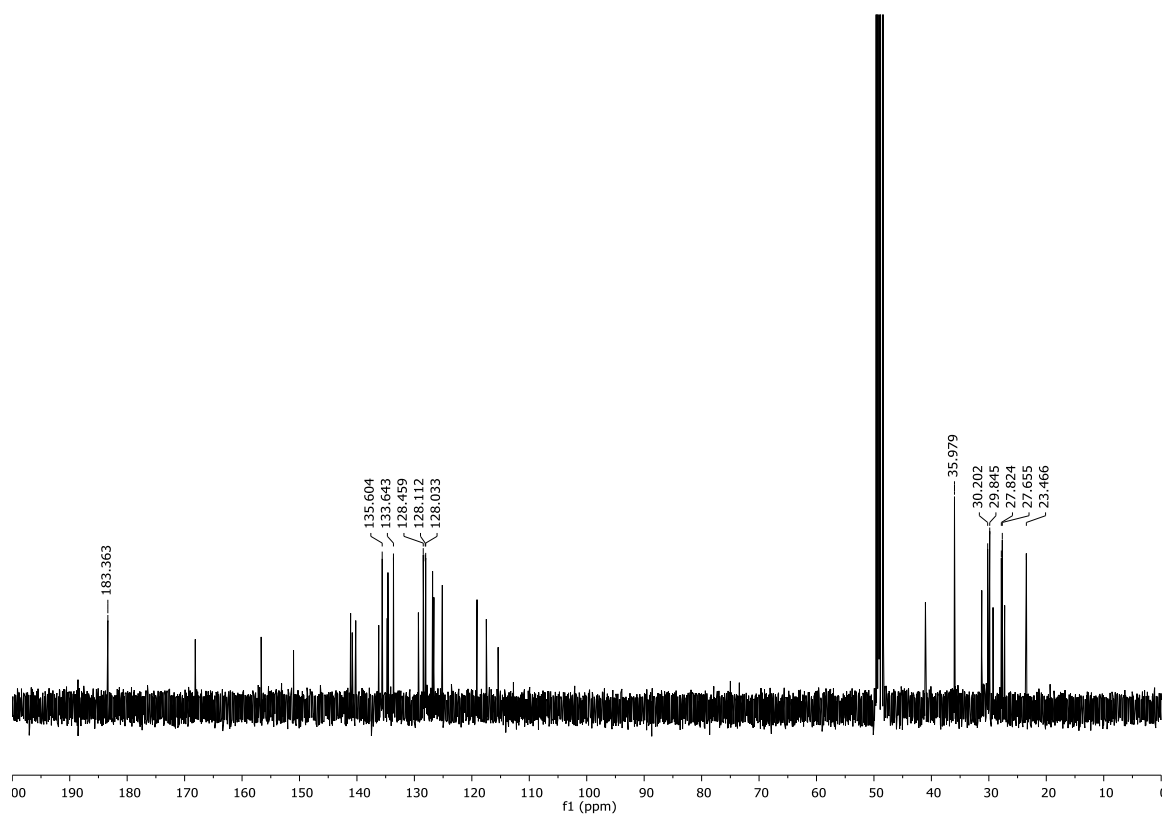
NMR spectra

(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[*b*]quinolin-12-yl)amino]nonyl}anthraquinone-2-carboxamide (20a)

¹H NMR (400 MHz, CD₃OD)

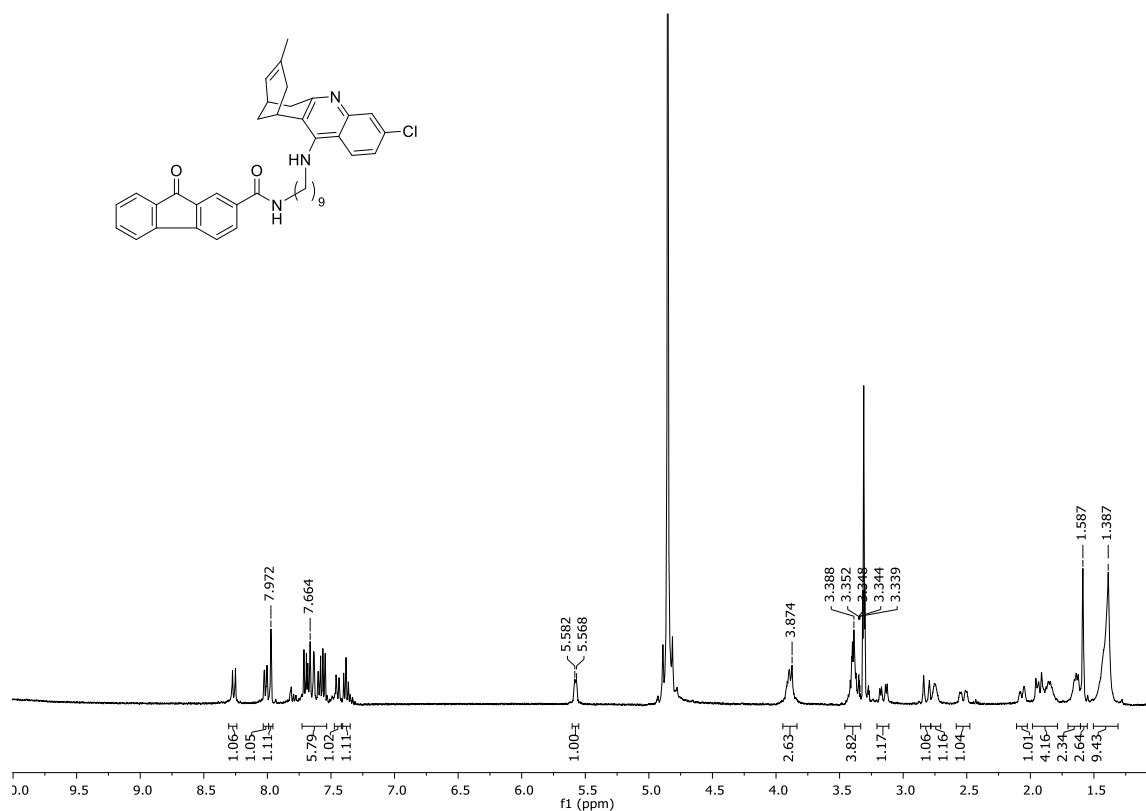


¹³C NMR (100.6 MHz, CD₃OD)

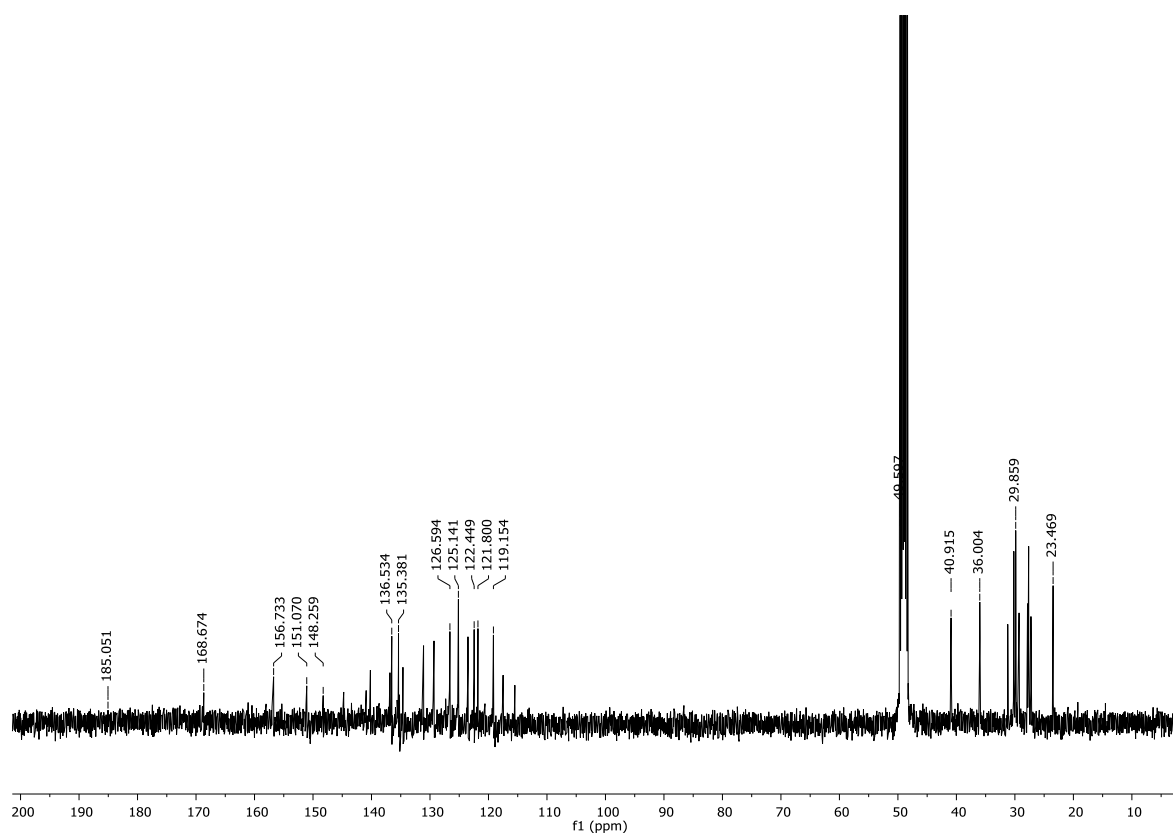


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[*b*]quinolin-12-yl)amino]nonyl}-9-fluorenone-2-carboxamide (20b)

¹H NMR (400 MHz, CD₃OD)

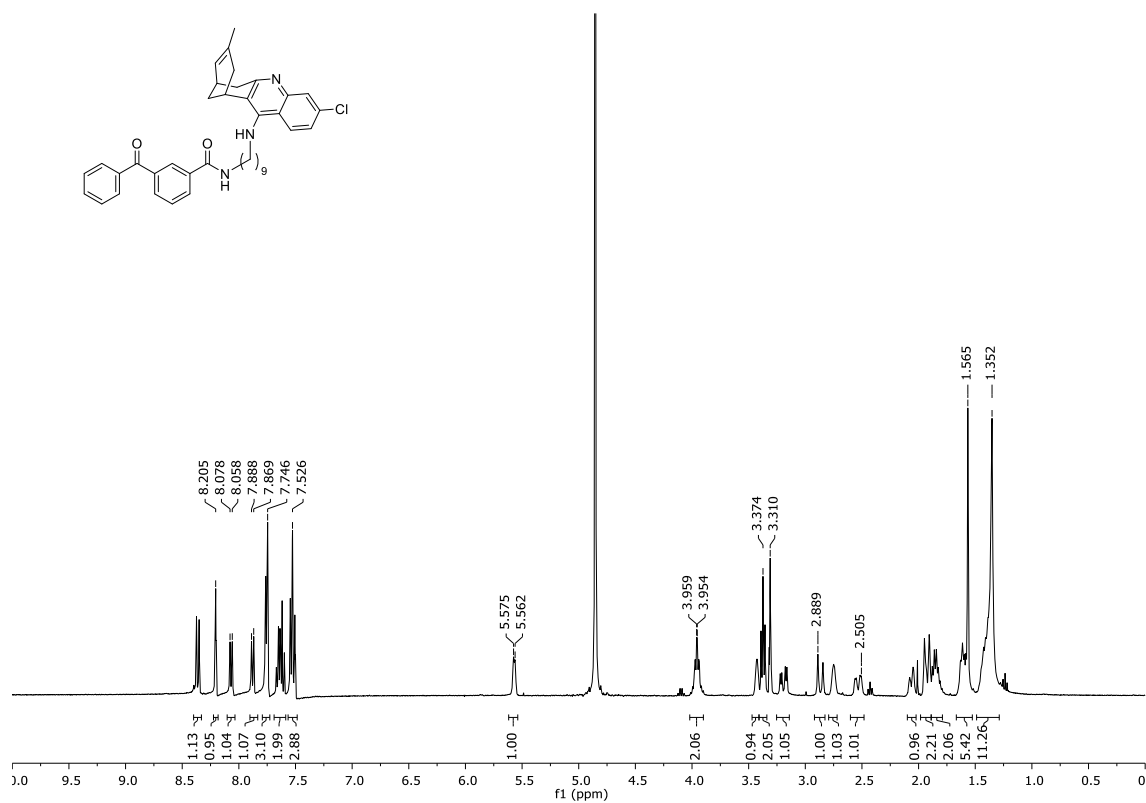


¹³C NMR (100.6 MHz, CD₃OD)

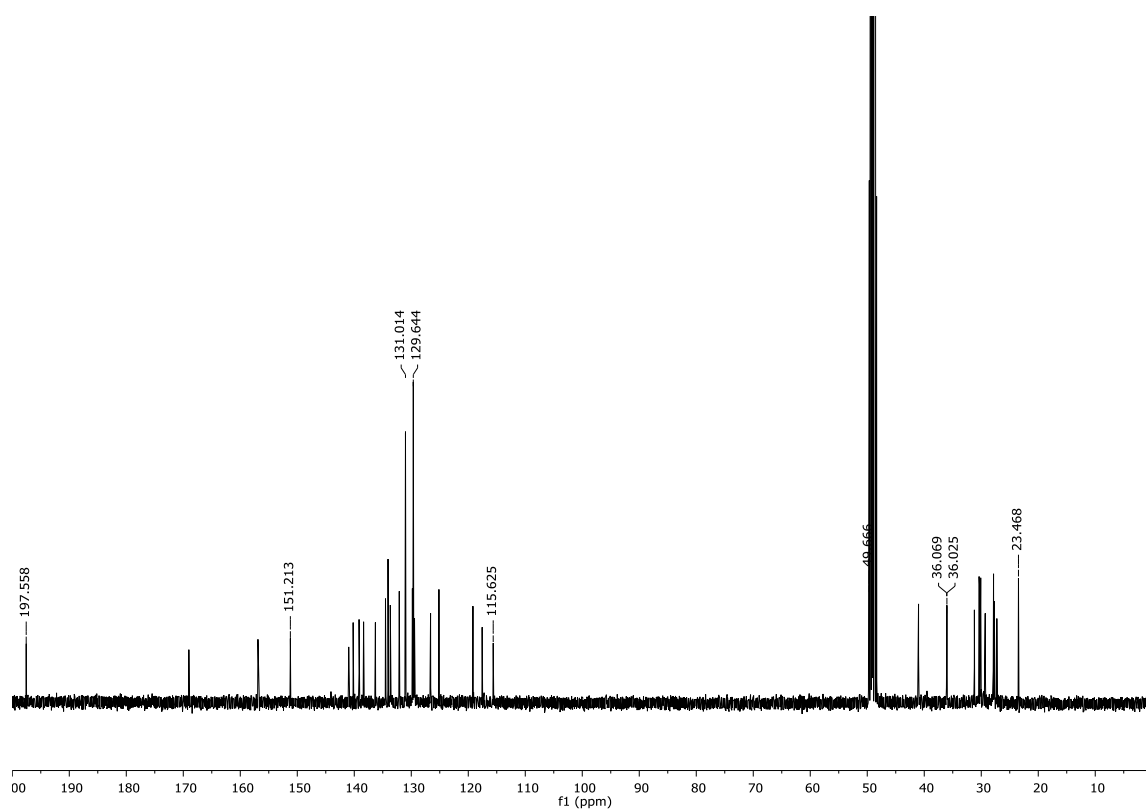


(±)-3-benzoyl-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[*b*]quinolin-12-yl)amino]nonyl}benzamide (20c)

¹H NMR (400 MHz, CD₃OD)

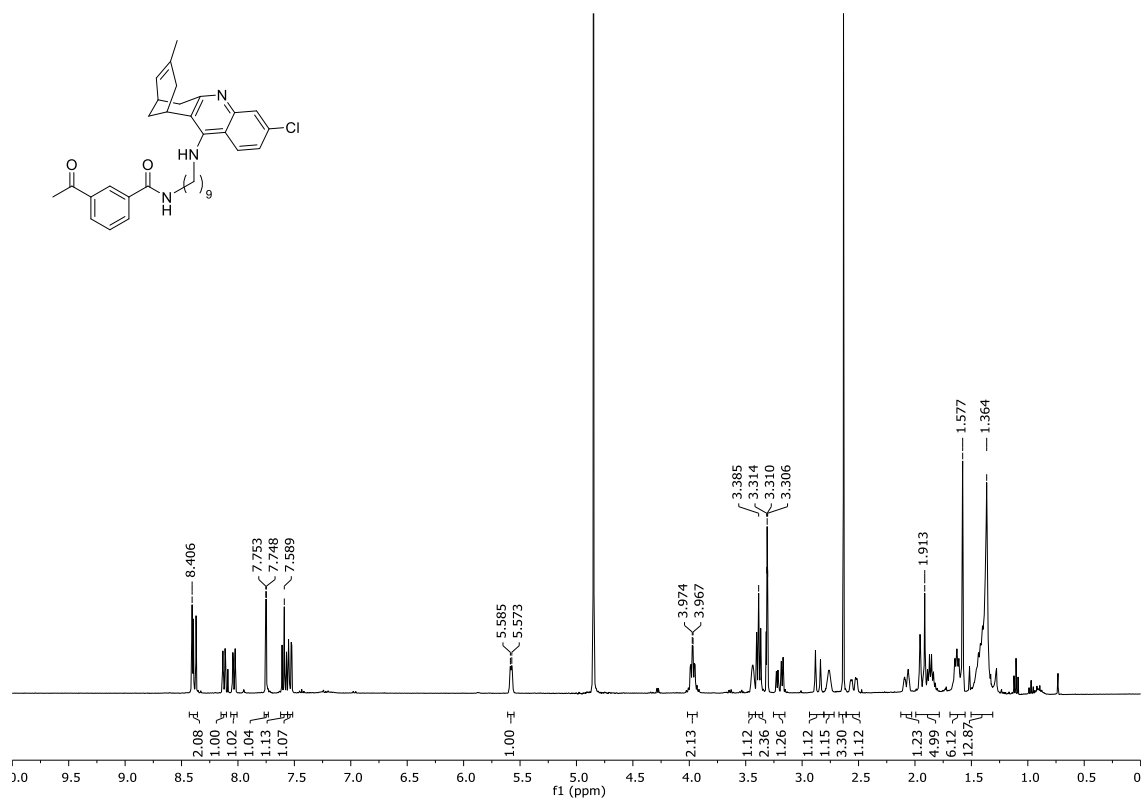


¹³C NMR (100.6 MHz, CD₃OD)

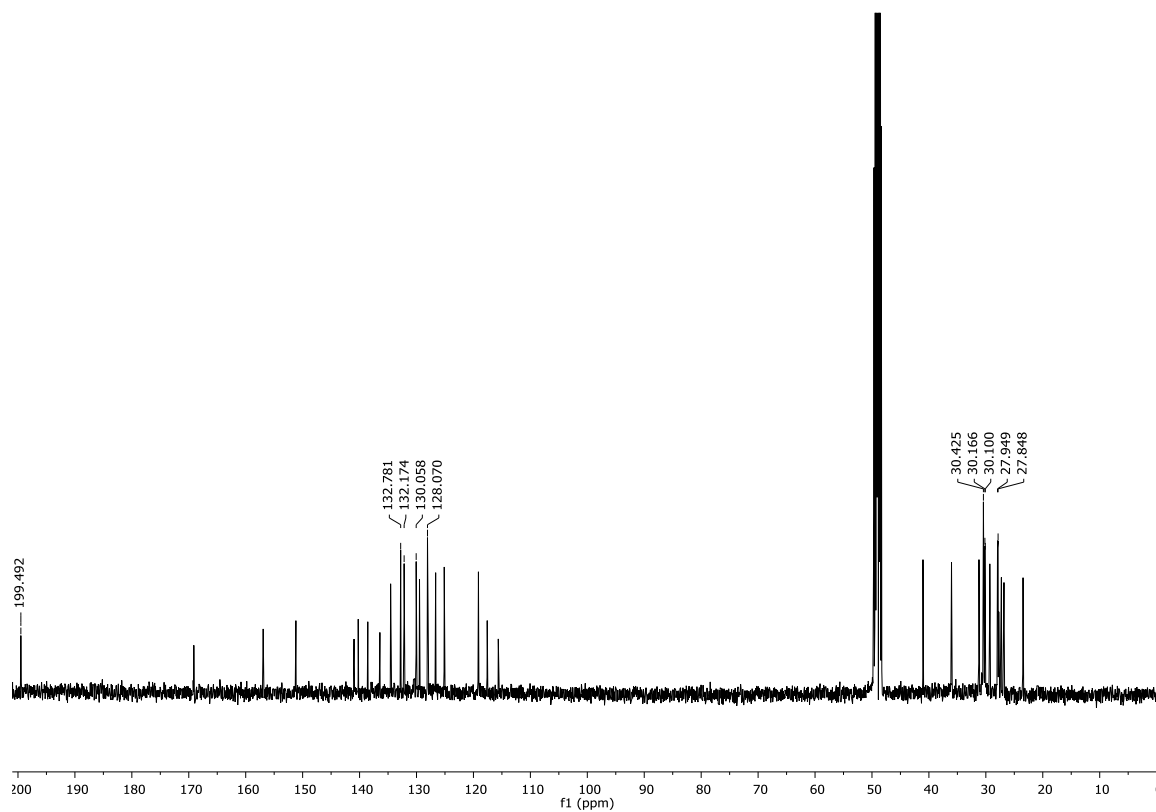


(±)-3-acetyl-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[*b*]quinolin-12-yl)amino]nonyl}benzamide (20d)

¹H NMR (400 MHz, CD₃OD)

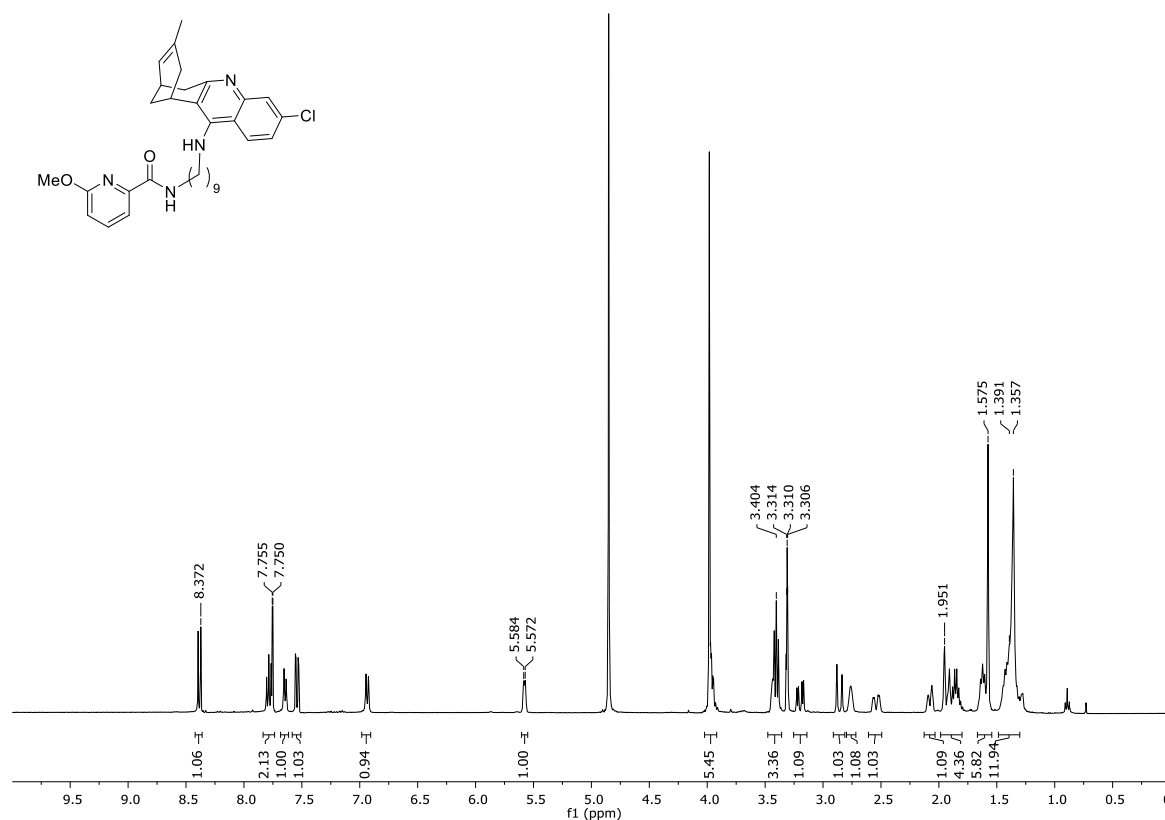


¹³C NMR (100.6 MHz, CD₃OD)

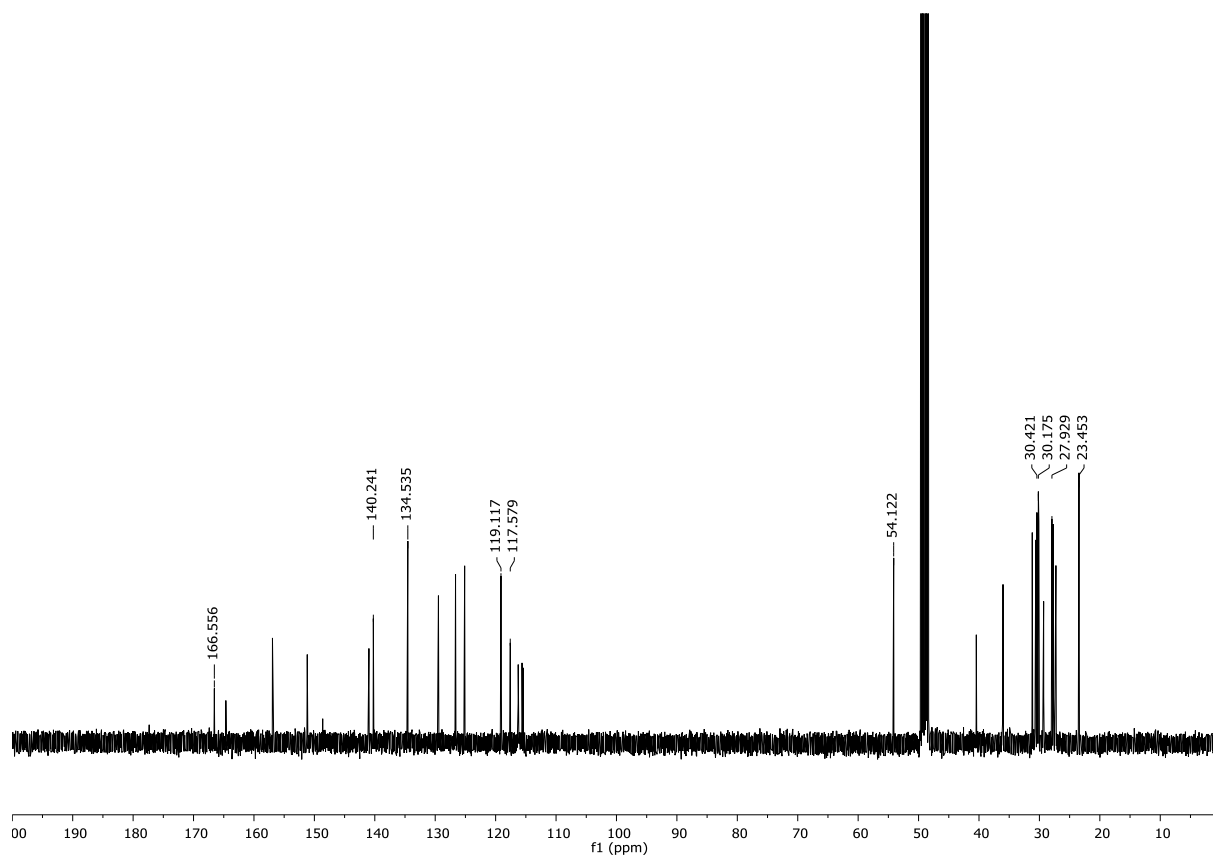


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[*b*]quinolin-12-yl)amino]nonyl}-6-methoxypyridine-2-carboxamide (22a)

¹H NMR (400 MHz, CD₃OD)

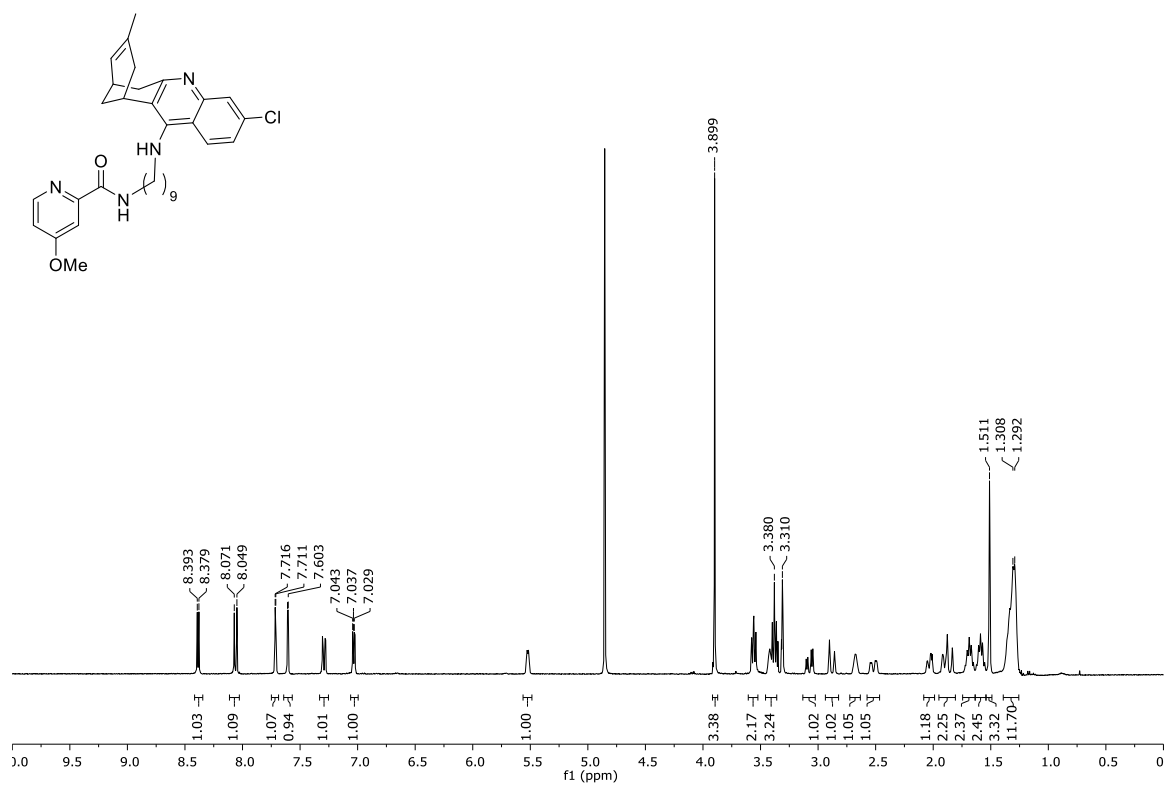


¹³C NMR (100.6 MHz, CD₃OD)

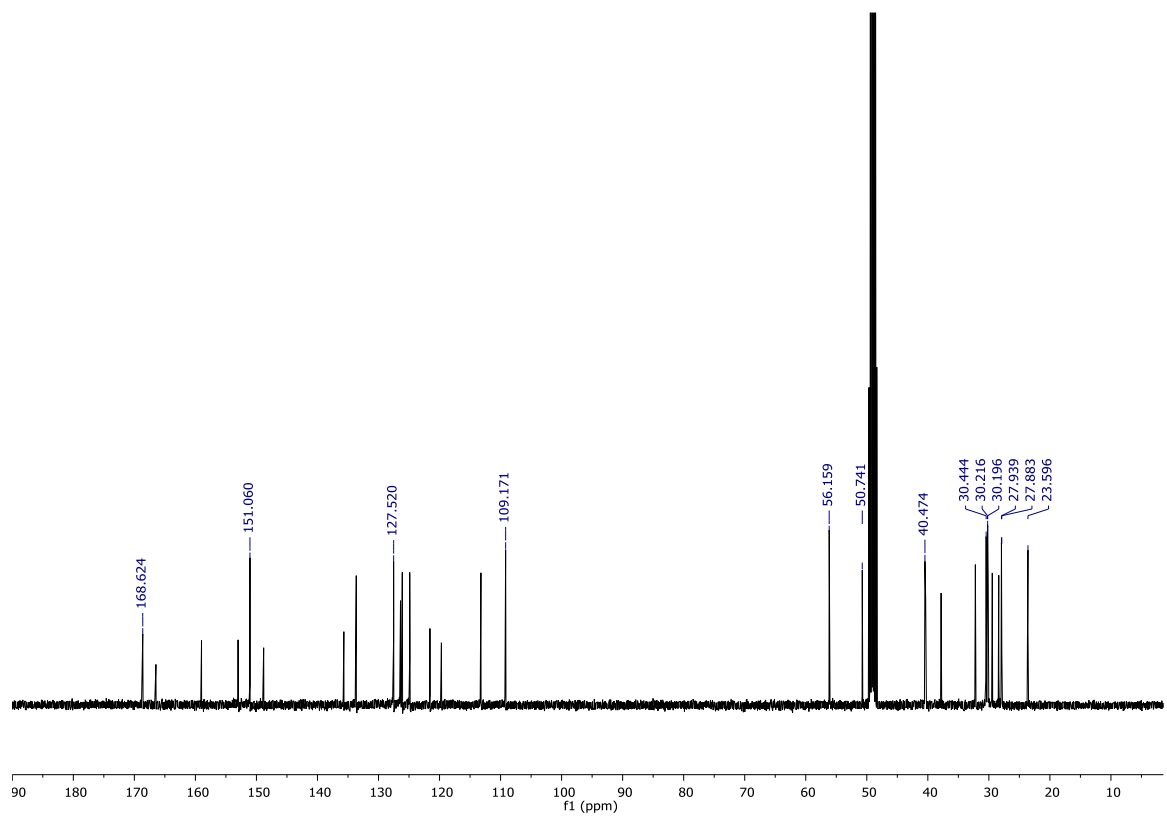


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[*b*]quinolin-12-yl)amino]nonyl}-4-methoxypyridine-2-carboxamide (22b)

¹H NMR (400 MHz, CD₃OD)

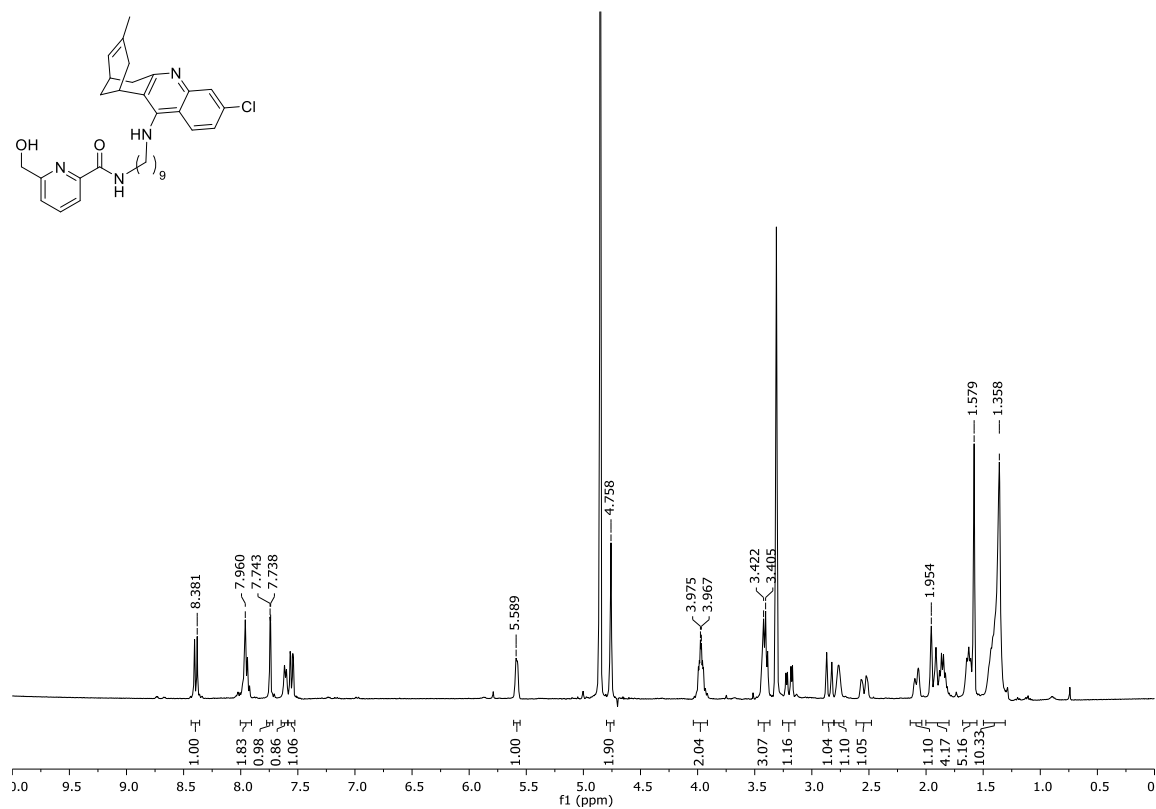


¹³C NMR (100.6 MHz, CD₃OD)

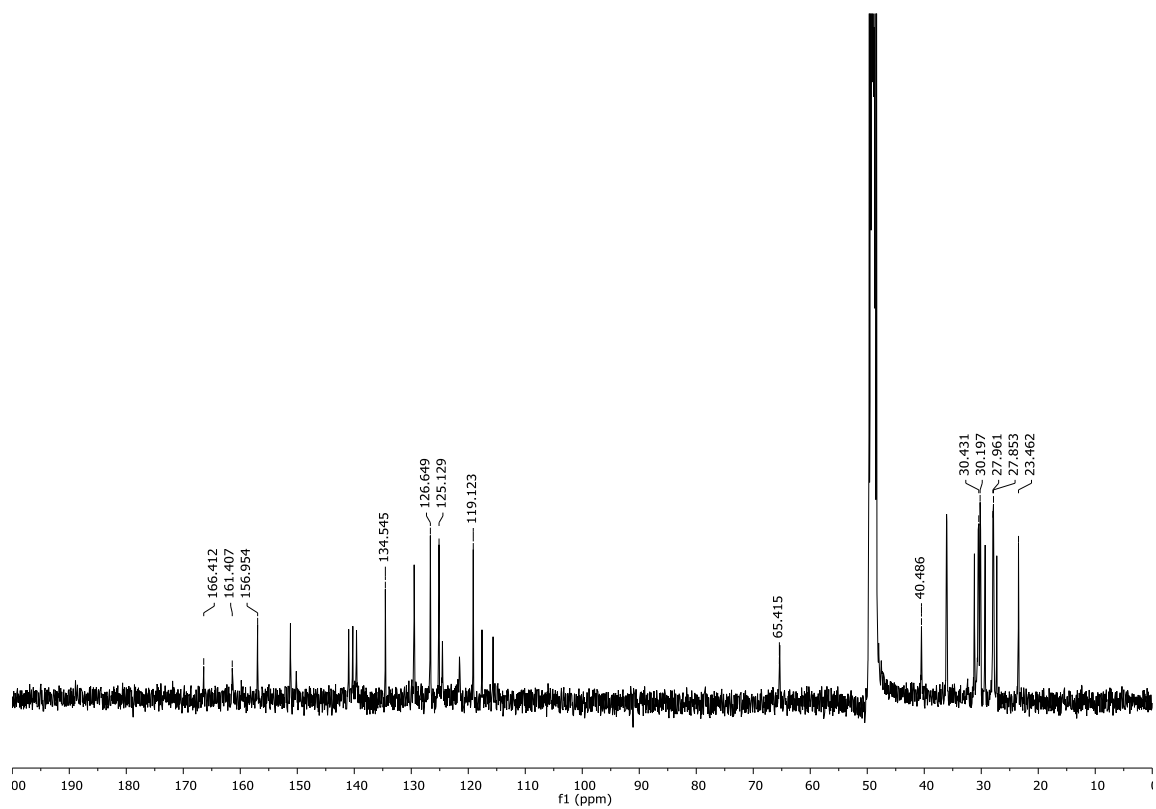


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[*b*]quinolin-12-yl)amino]nonyl}-6-(hydroxymethyl)pyridine-2-carboxamide (22c)

¹H NMR (400 MHz, CD₃OD)

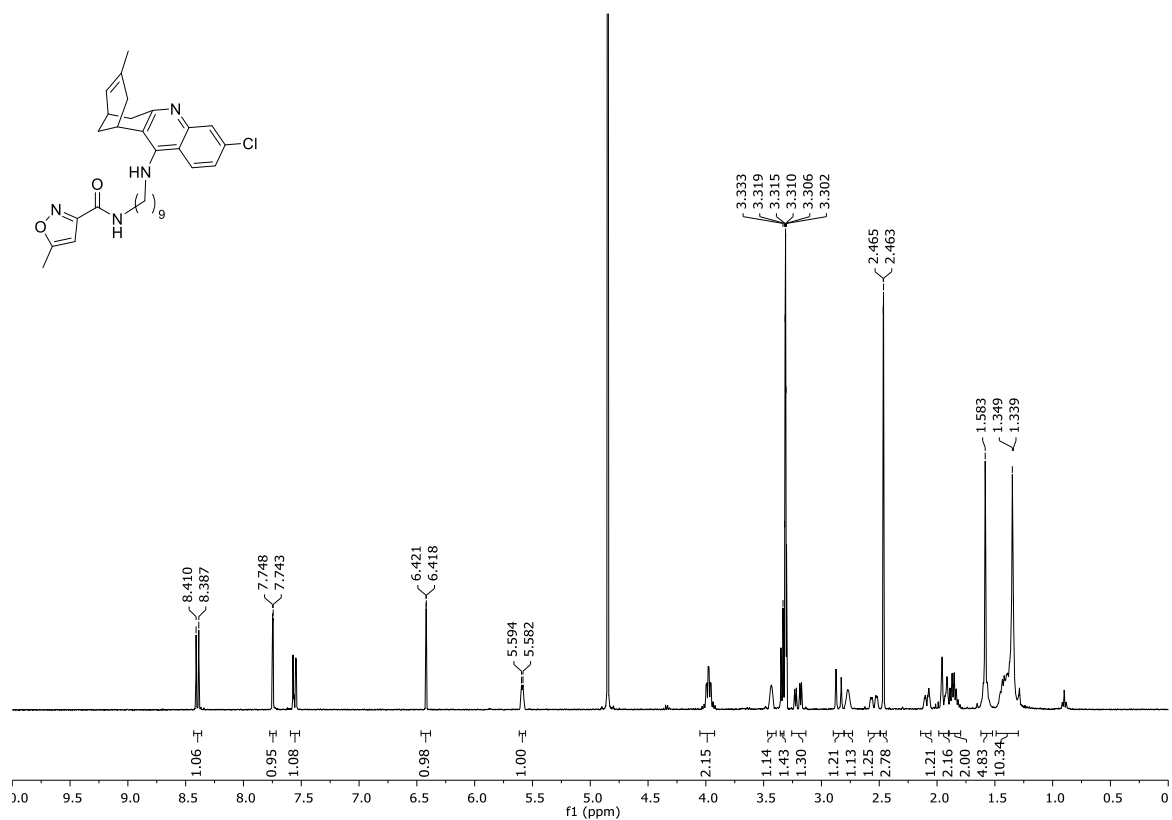


¹³C NMR (100.6 MHz, CD₃OD)

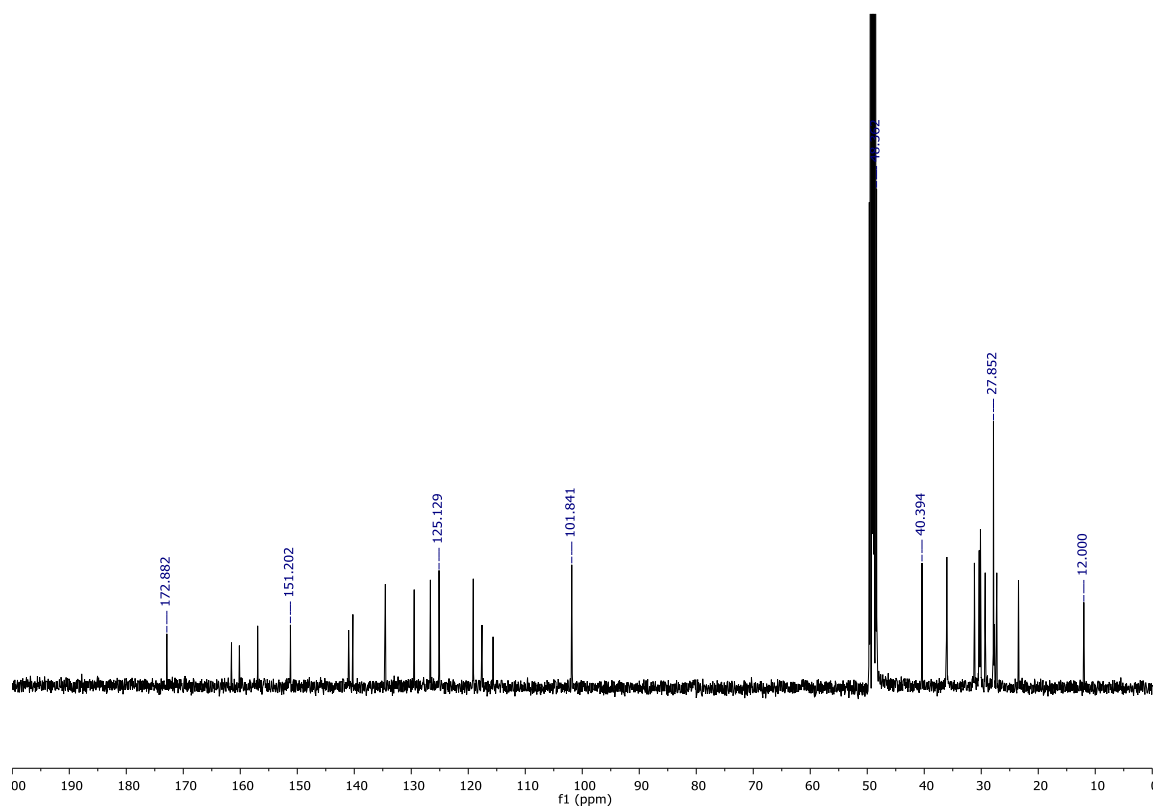


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[*b*]quinolin-12-yl)amino]nonyl}-5-methylisoxazole-3-carboxamide (22d)

¹H NMR (400 MHz, CD₃OD)

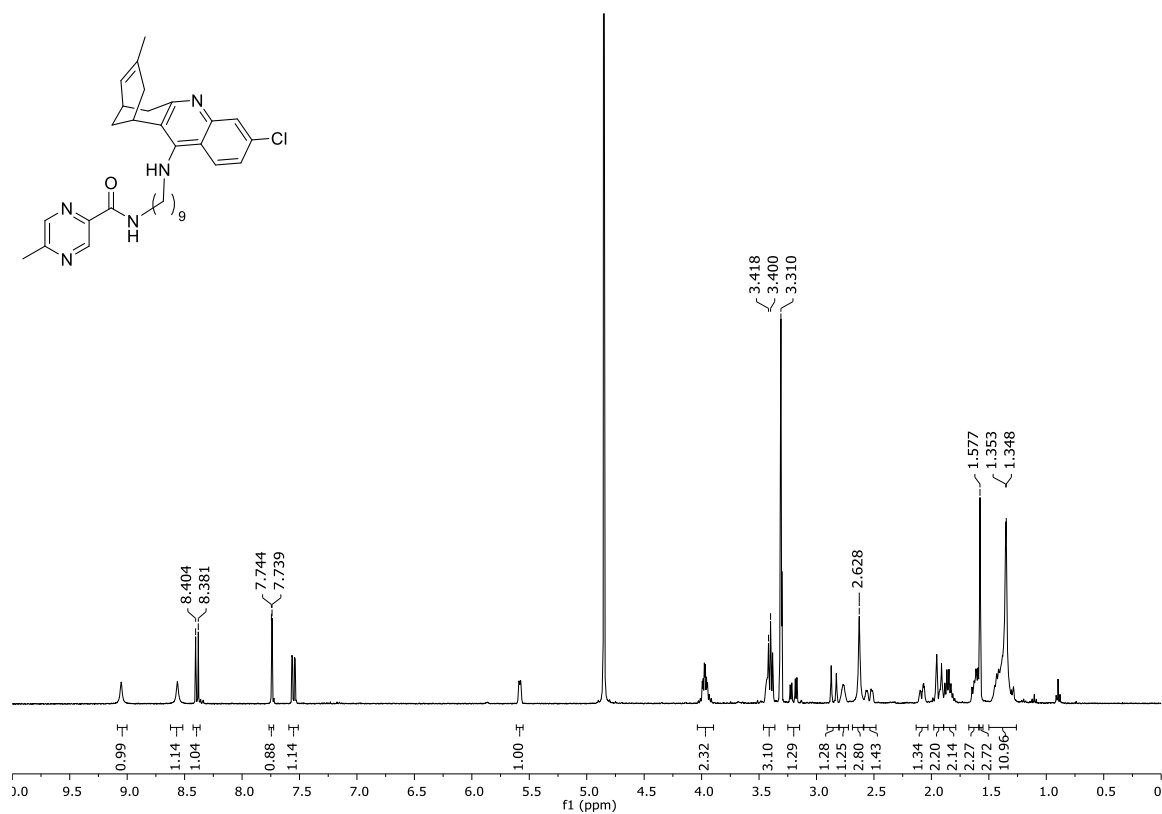


¹³C NMR (100.6 MHz, CD₃OD)

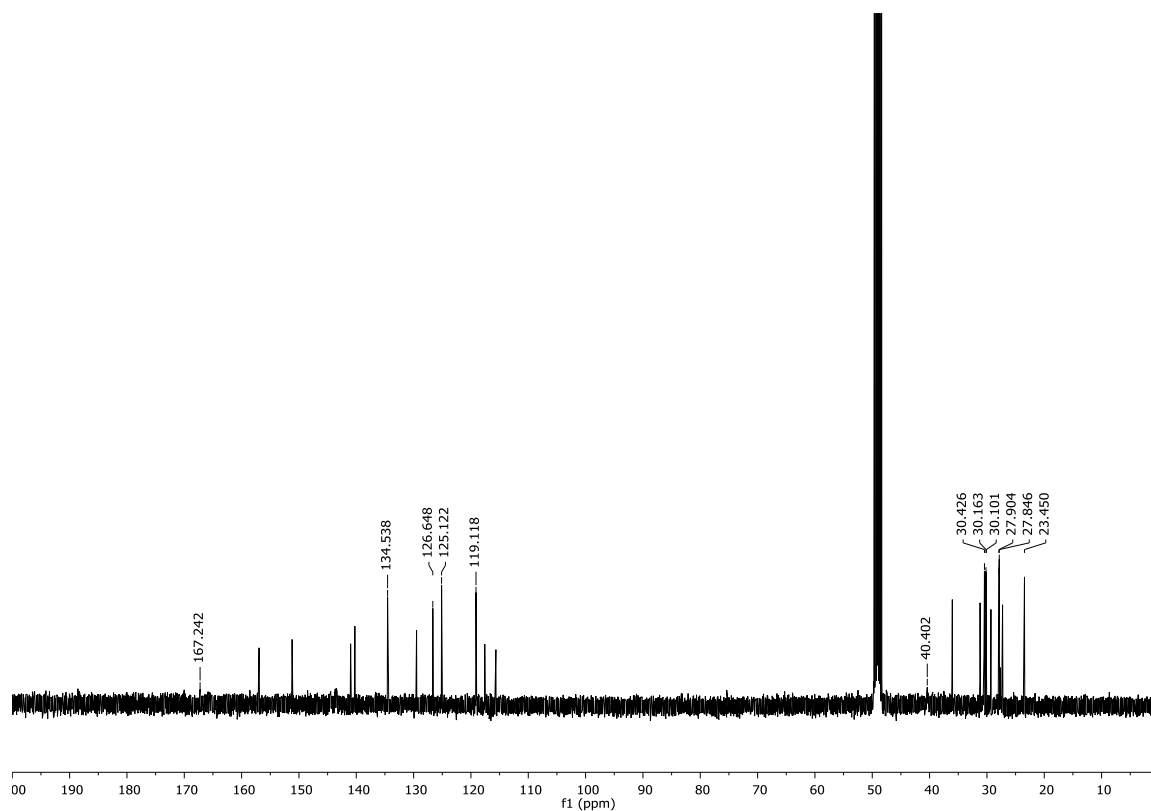


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[b]quinolin-12-yl)amino]nonyl}-5-methylpyrazine-2-carboxamide (22e)

¹H NMR (400 MHz, CD₃OD)

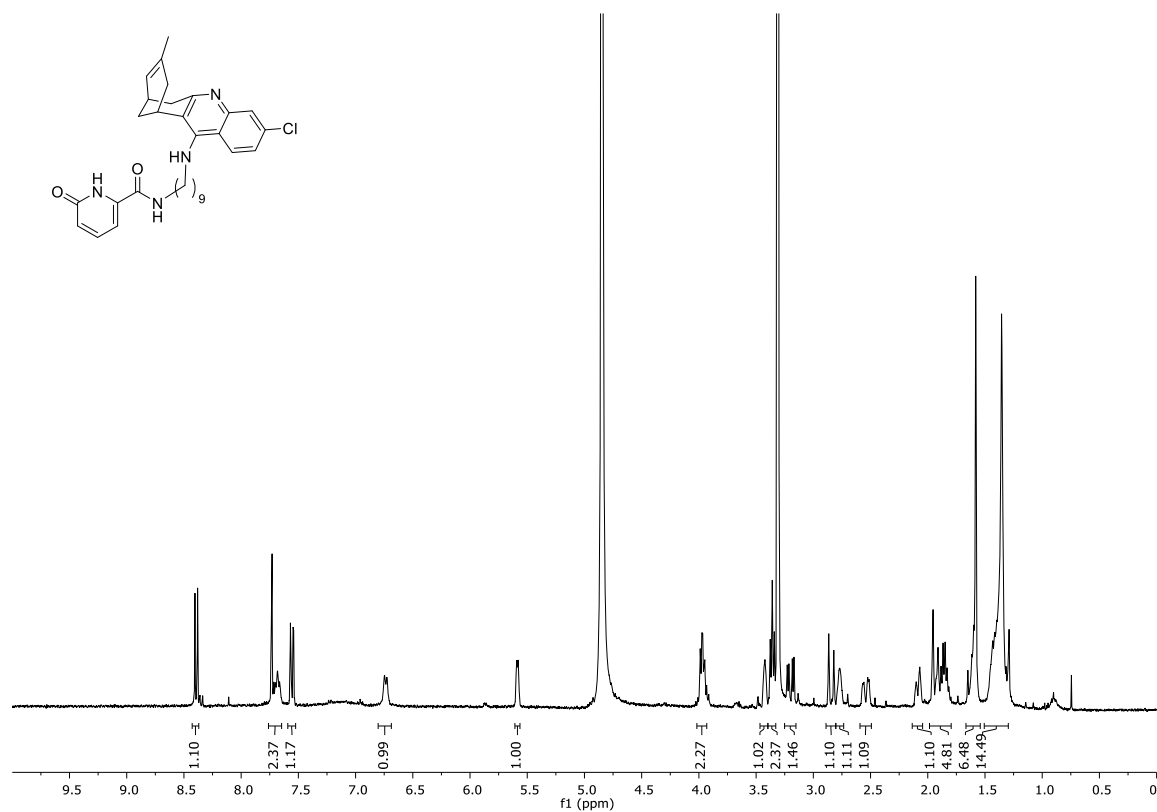


¹³C NMR (100.6 MHz, CD₃OD)

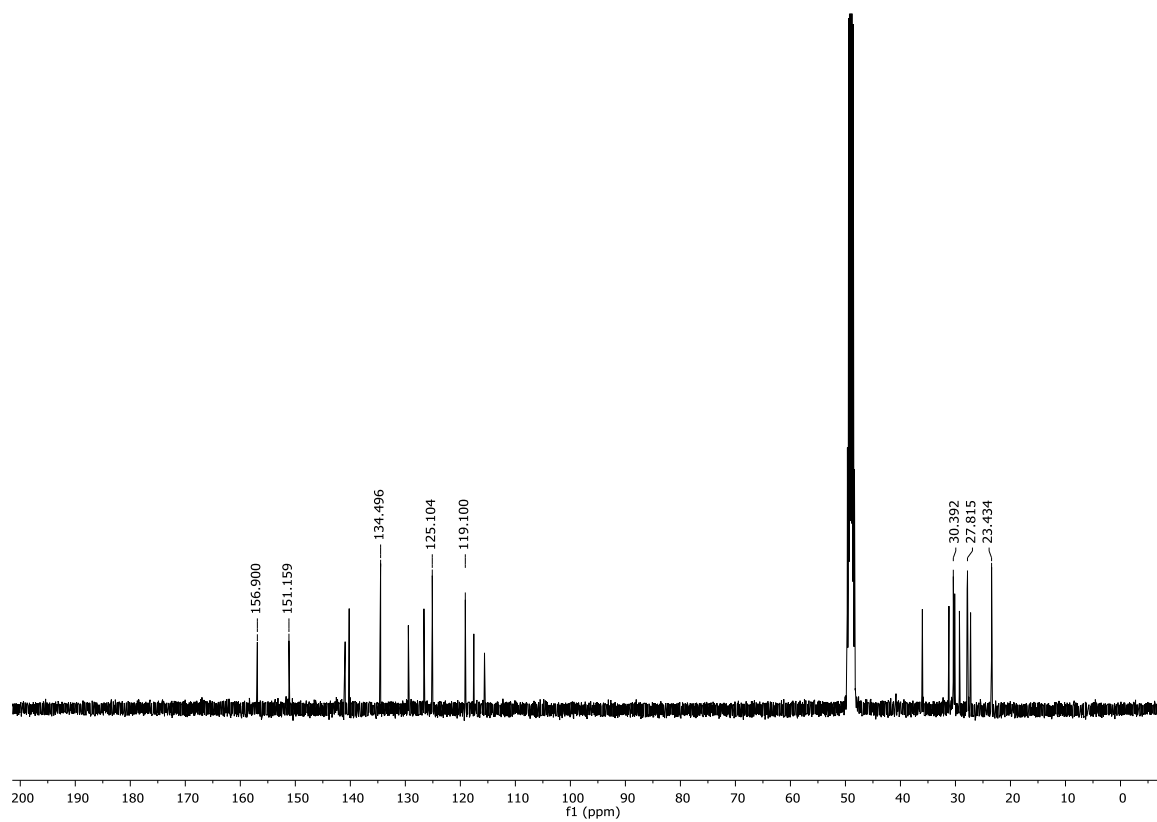


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[b]quinolin-12-yl)amino]nonyl}-6-oxo-1,6-dihydropyridine-2-carboxamide (23a)

¹H NMR (400 MHz, CD₃OD)

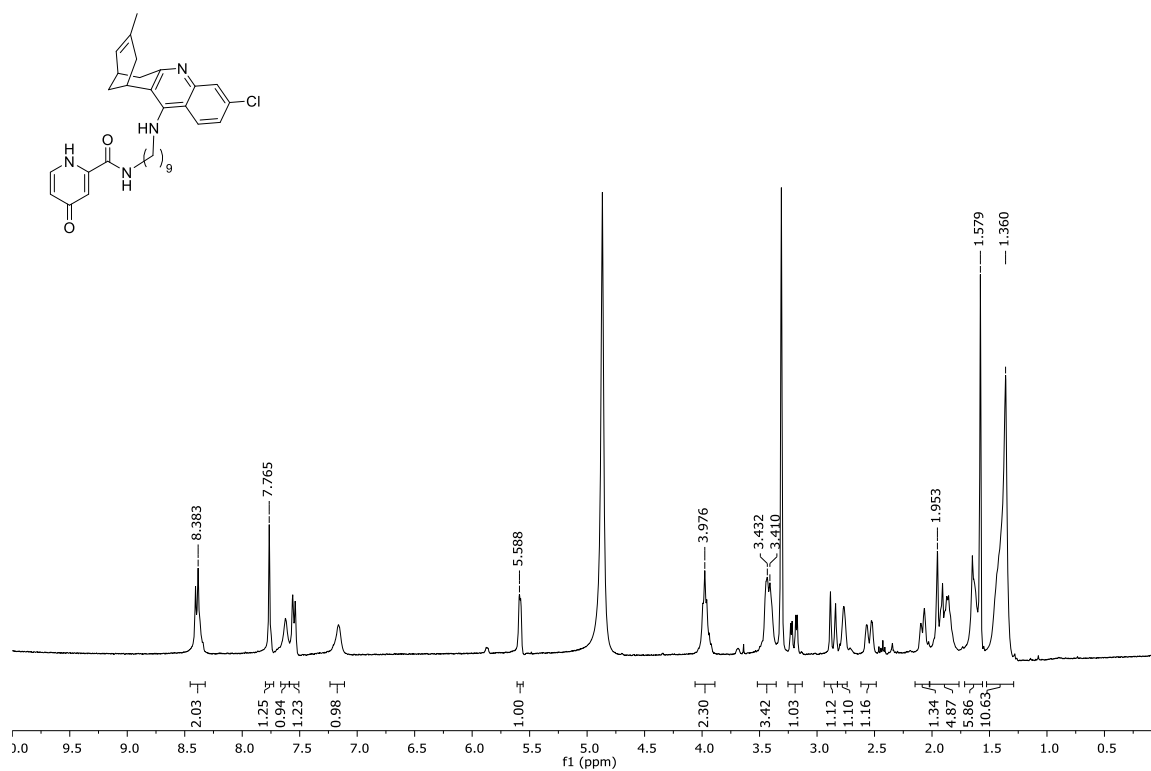


¹³C NMR (100.6 MHz, CD₃OD)

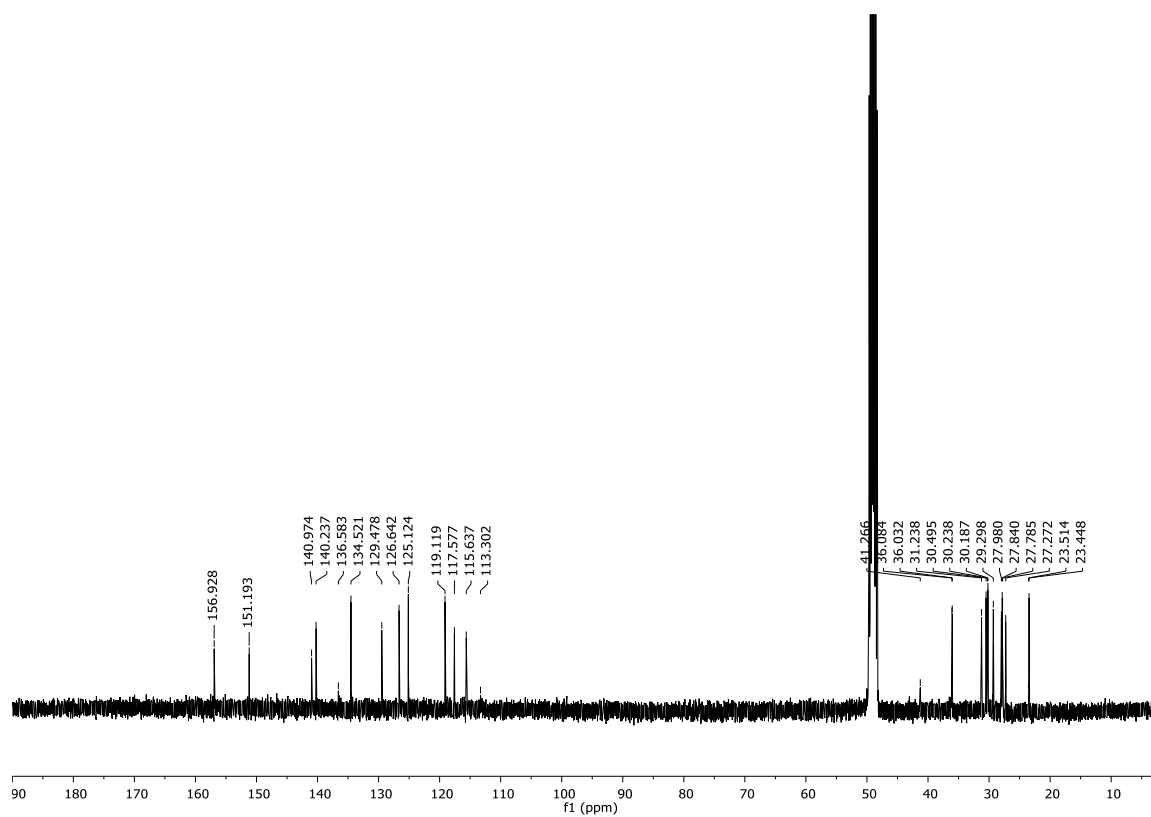


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[*b*]quinolin-12-yl)amino]nonyl}-4-oxo-1,4-dihydropyridine-2-carboxamide (23b)

¹H NMR (400 MHz, CD₃OD)

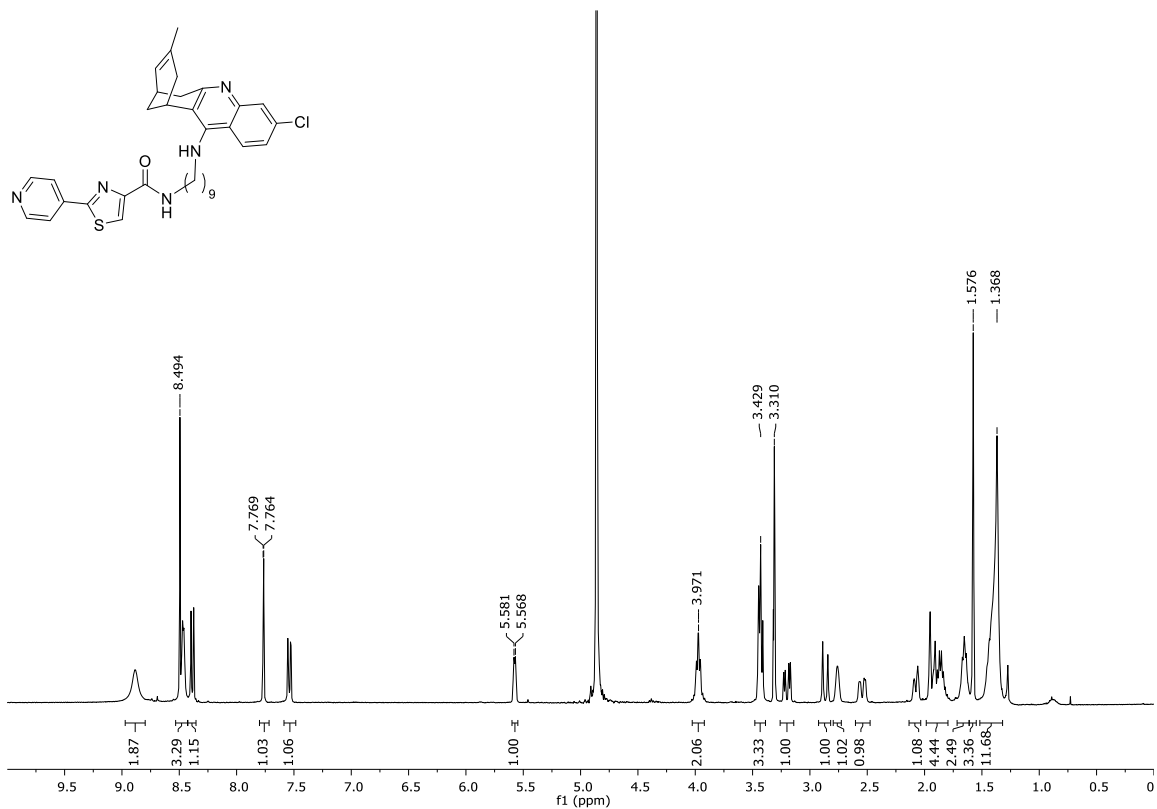


¹³C NMR (100.6 MHz, CD₃OD)

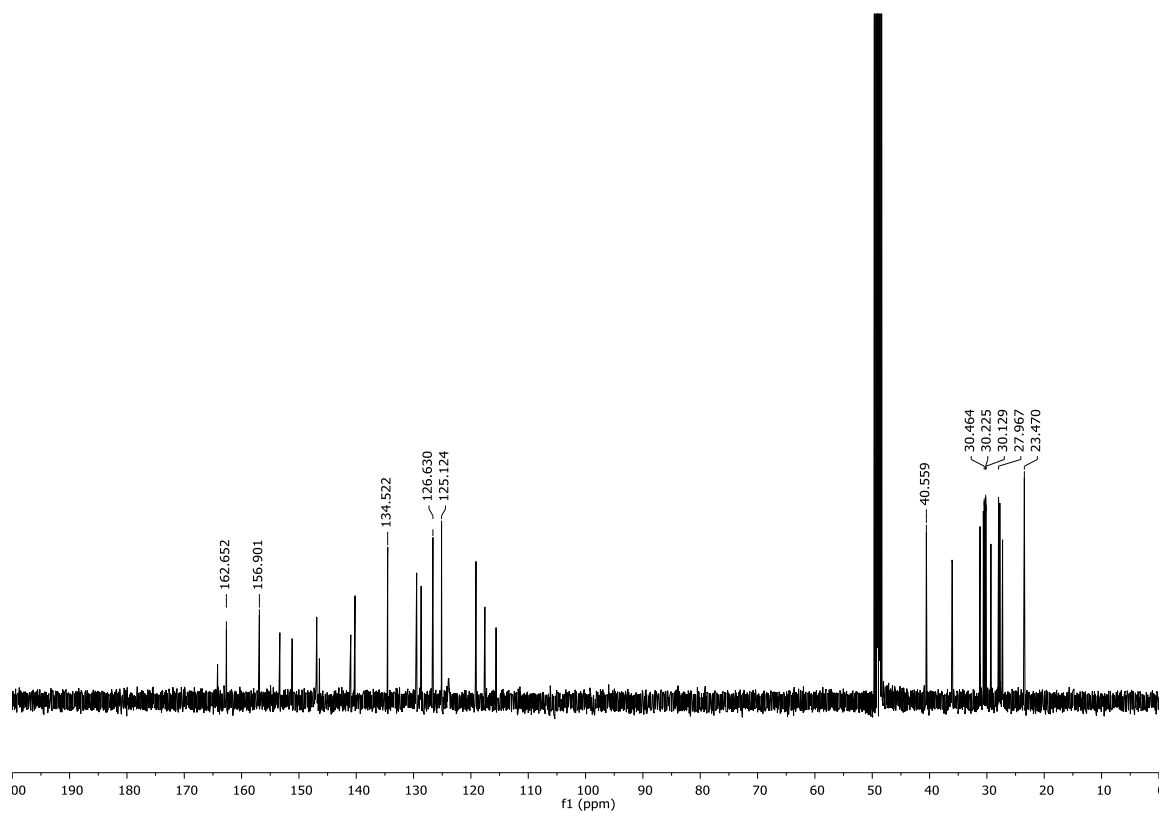


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[b]quinolin-12-yl)amino]nonyl}-2-(4-pyridyl)thiazole-4-carboxamide (25a)

¹H NMR (400 MHz, CD₃OD)

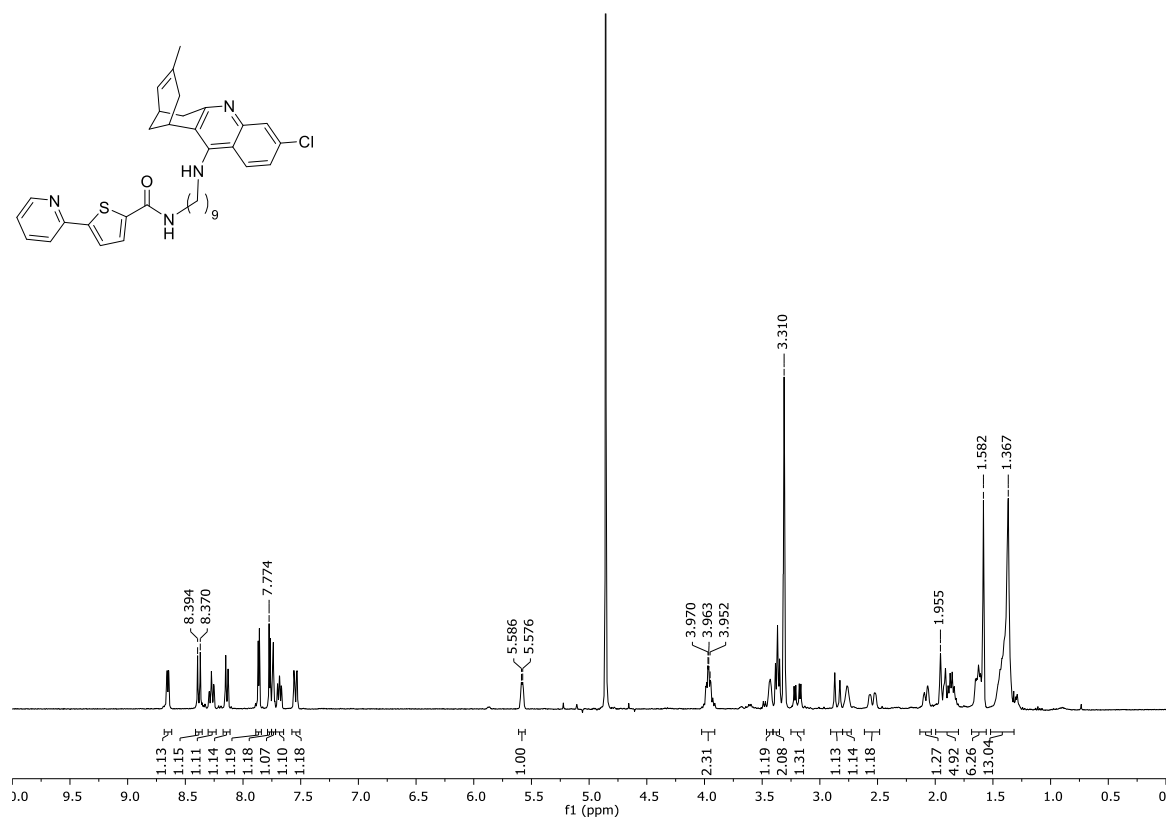


¹³C NMR (100.6 MHz, CD₃OD)

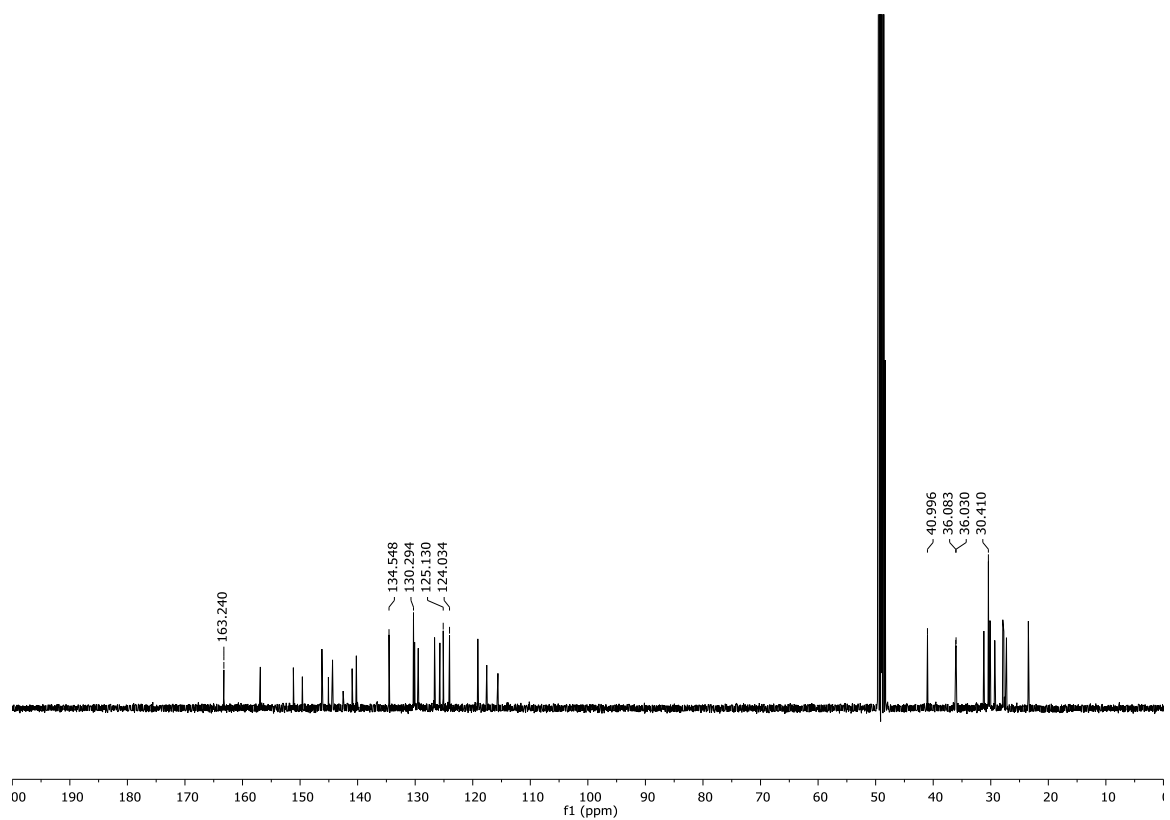


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[*b*]quinolin-12-yl)amino]nonyl}-5-(2-pyridyl)thiophene-2-carboxamide (25b)

¹H NMR (400 MHz, CD₃OD)

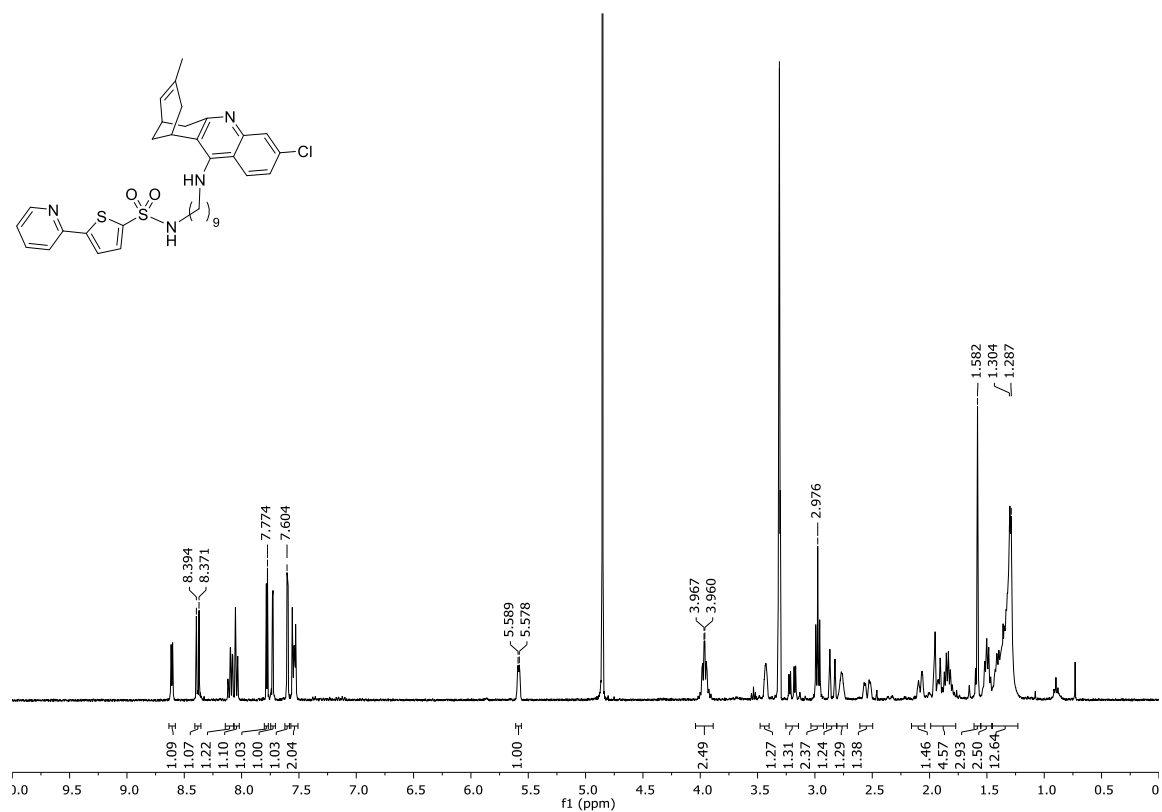


¹³C NMR (100.6 MHz, CD₃OD)

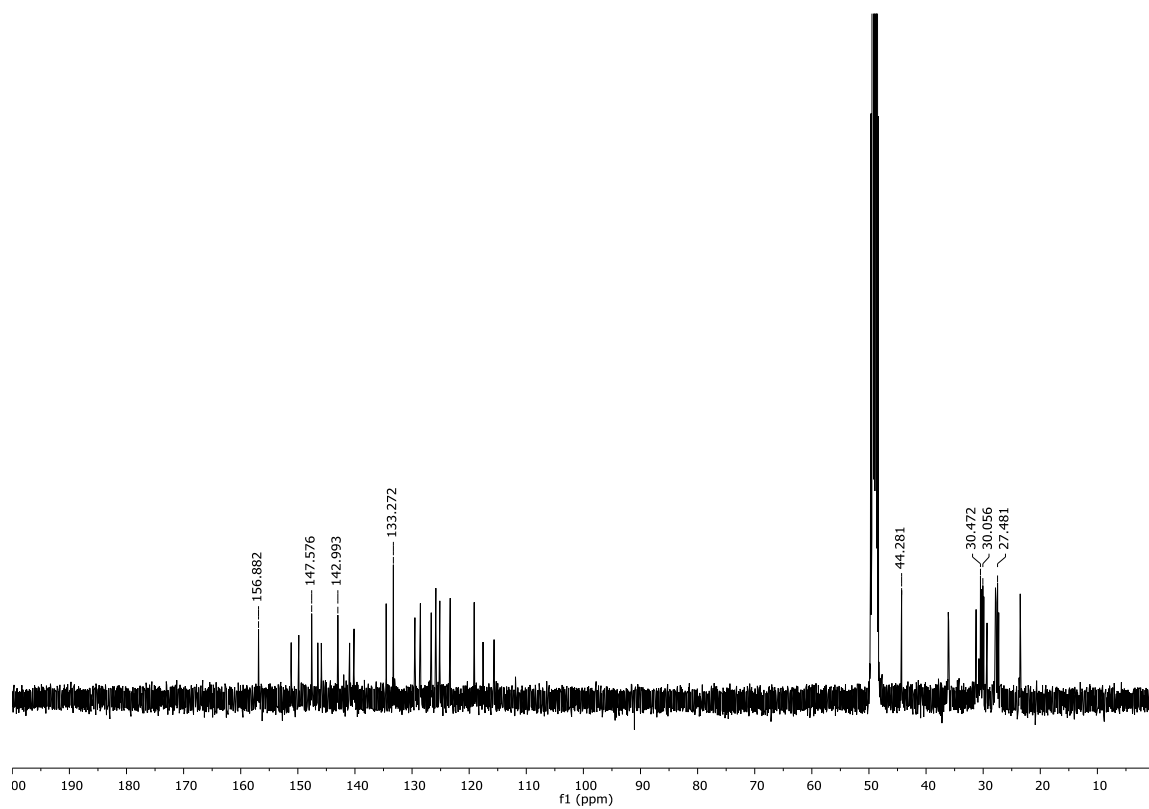


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[b]quinolin-12-yl)amino]nonyl}-5-(2-pyridyl)thiophene-2-sulfonamide (25c)

¹H NMR (400 MHz, CD₃OD)

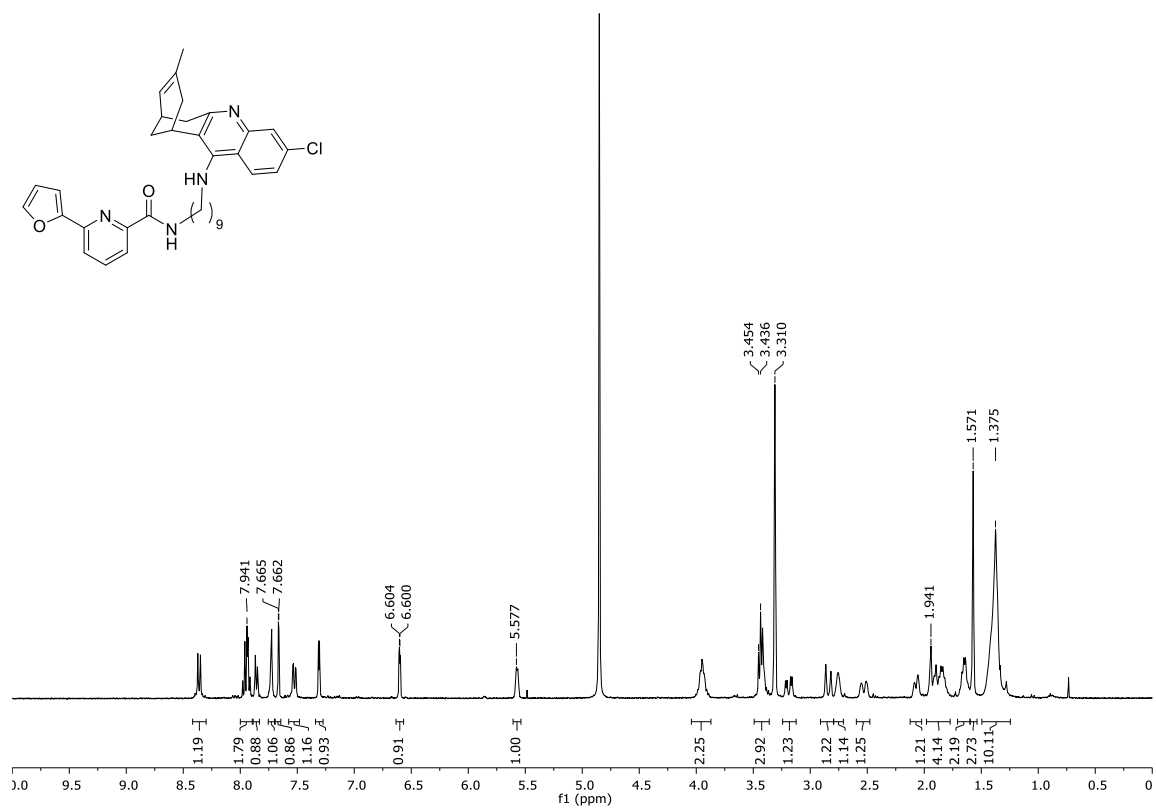


¹³C NMR (100.6 MHz, CD₃OD)

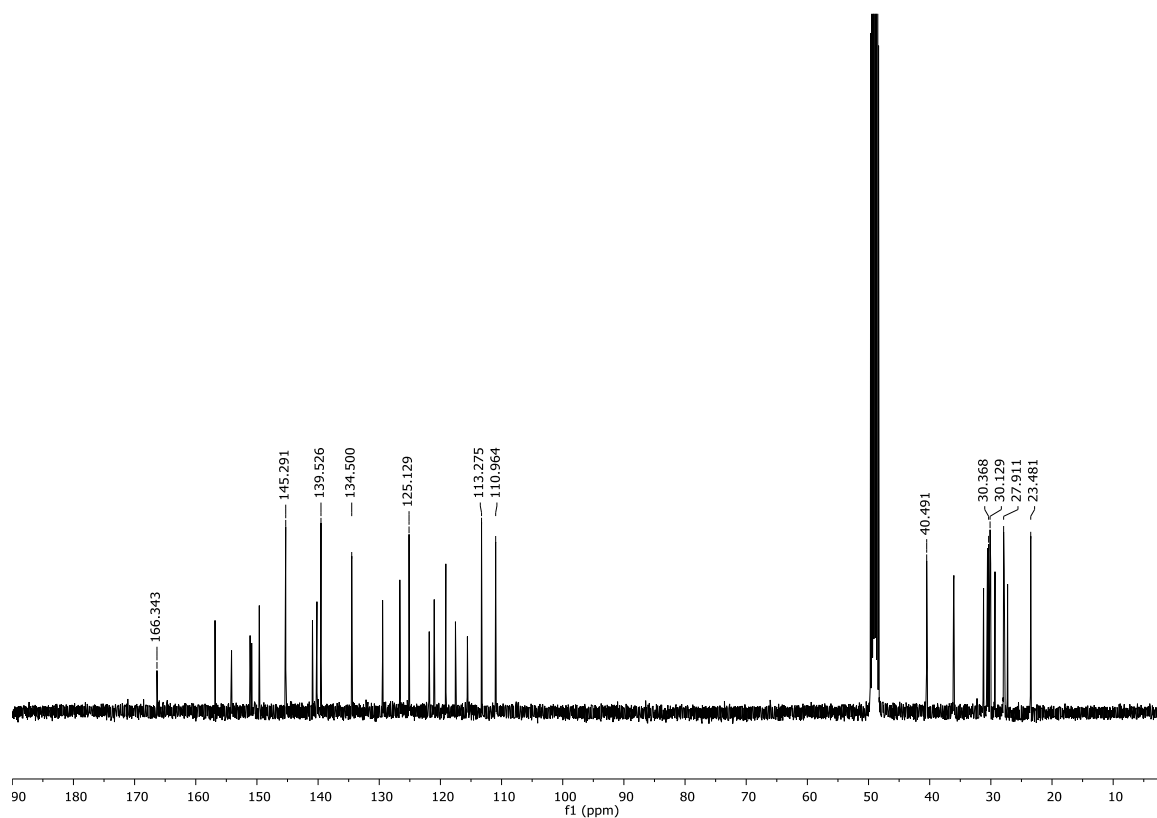


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[b]quinolin-12-yl)amino]nonyl}-6-(2-furyl)pyridine-2-carboxamide (25d)

¹H NMR (400 MHz, CD₃OD)

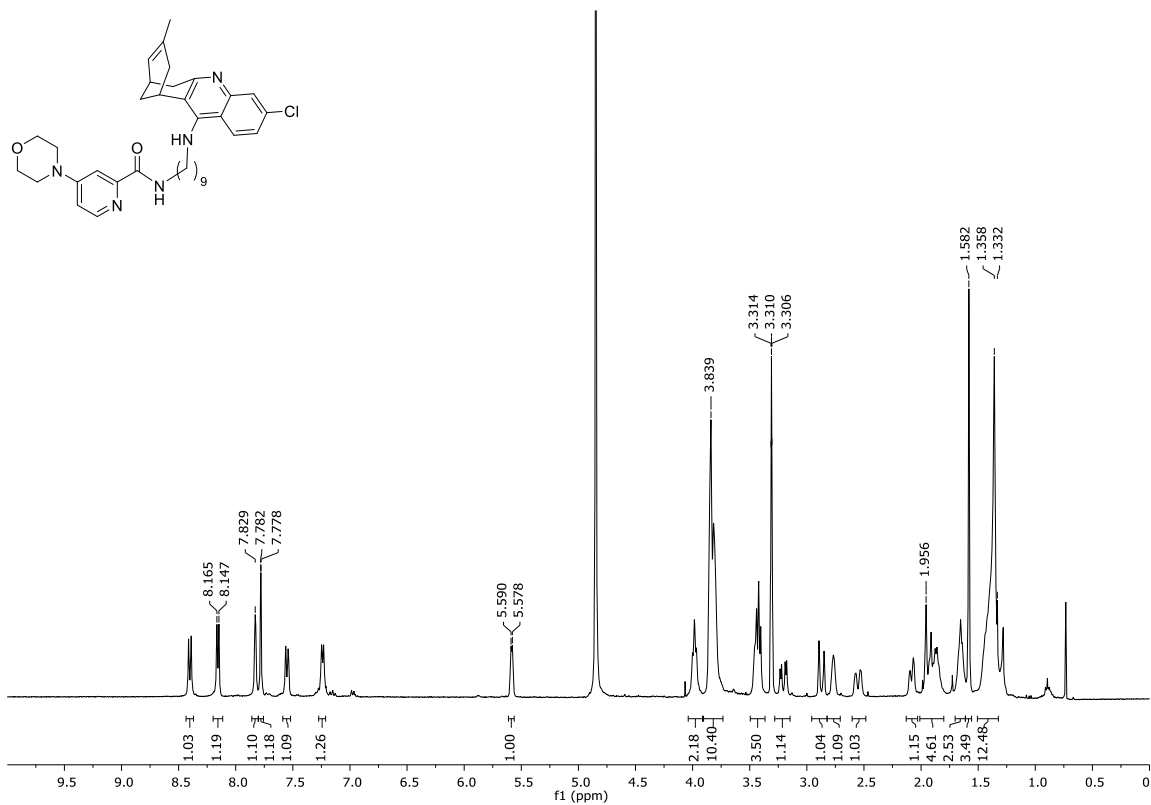


¹³C NMR (100.6 MHz, CD₃OD)

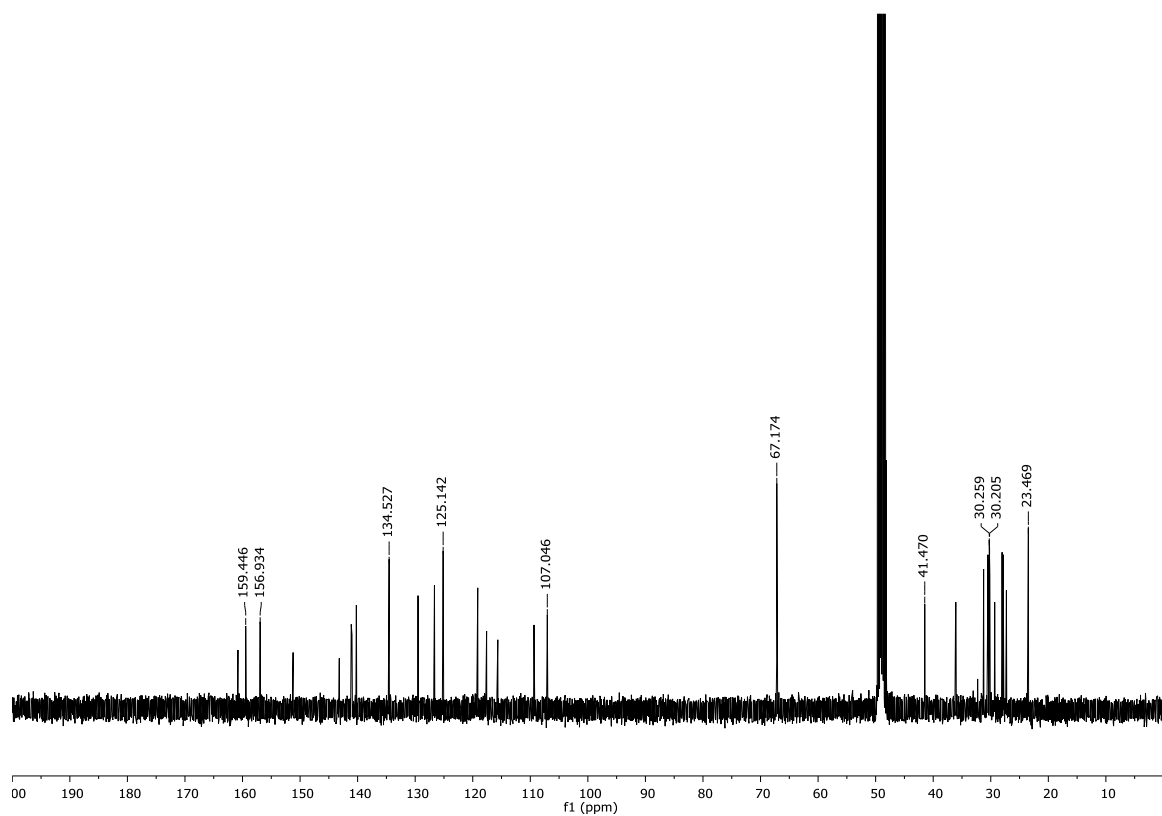


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[b]quinolin-12-yl)amino]nonyl}-4-(morpholin-4-yl)pyridine-2-carboxamide (25e)

^1H NMR (400 MHz, CD_3OD)

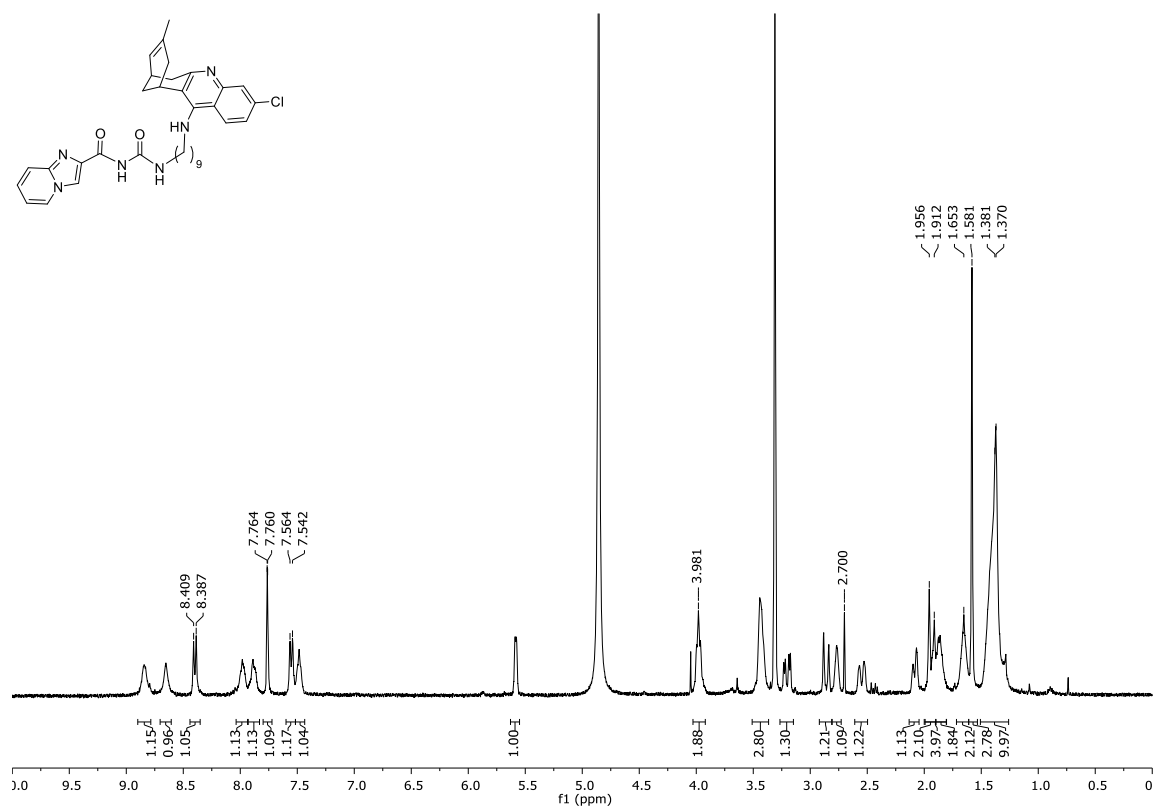


^{13}C NMR (100.6 MHz, CD_3OD)

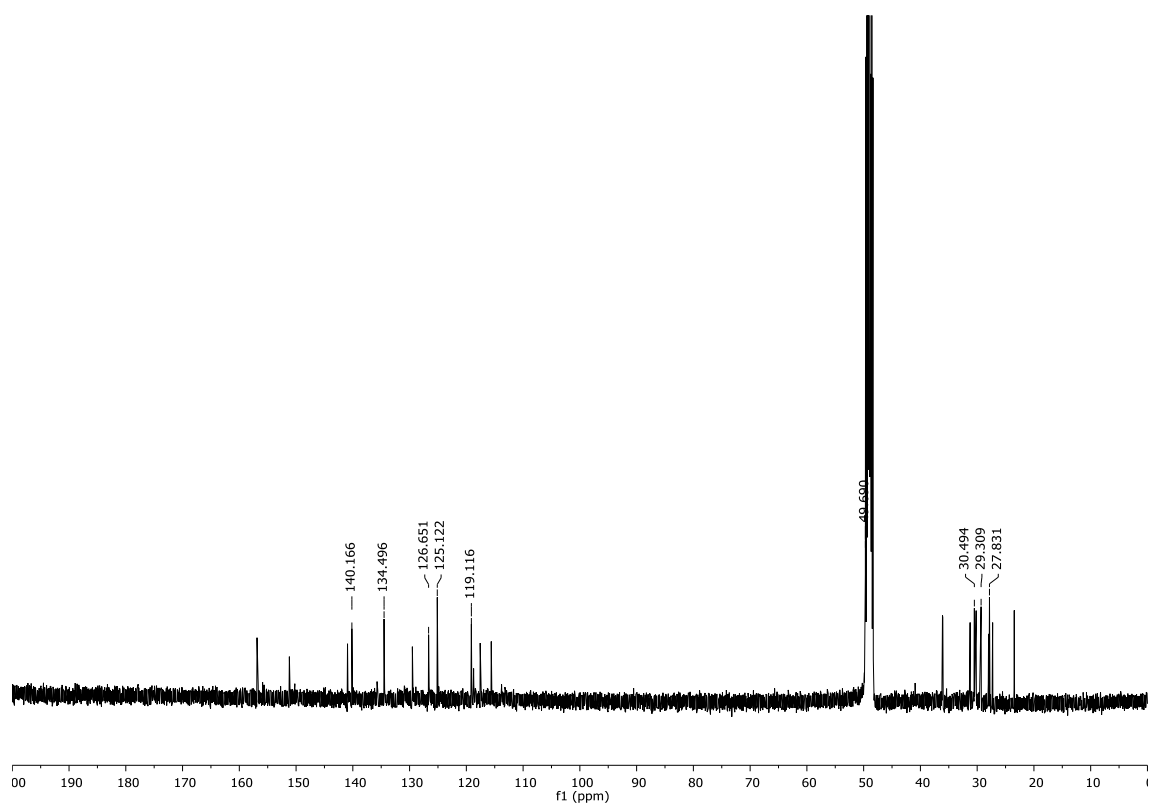


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[*b*]quinolin-12-yl)amino]nonyl}imidazo[1,2-*a*]pyridine-2-carboxamide (25f)

¹H NMR (400 MHz, CD₃OD)

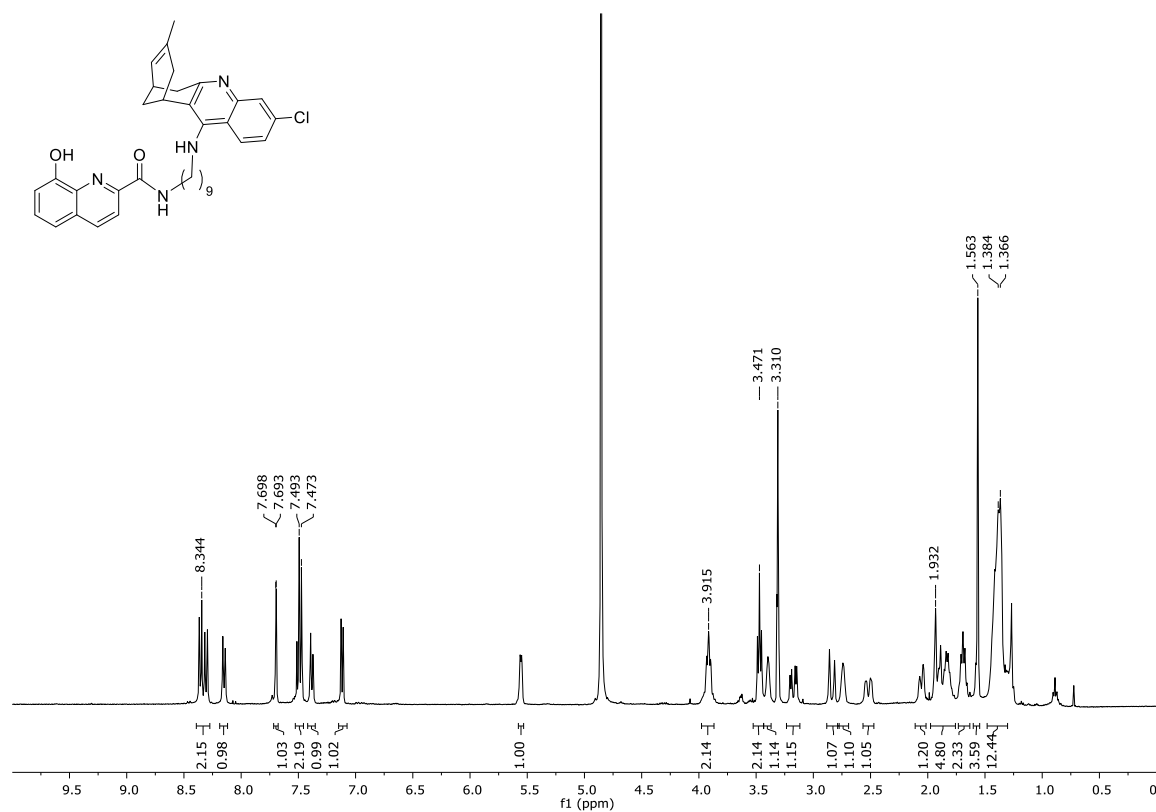


¹³C NMR (100.6 MHz, CD₃OD)

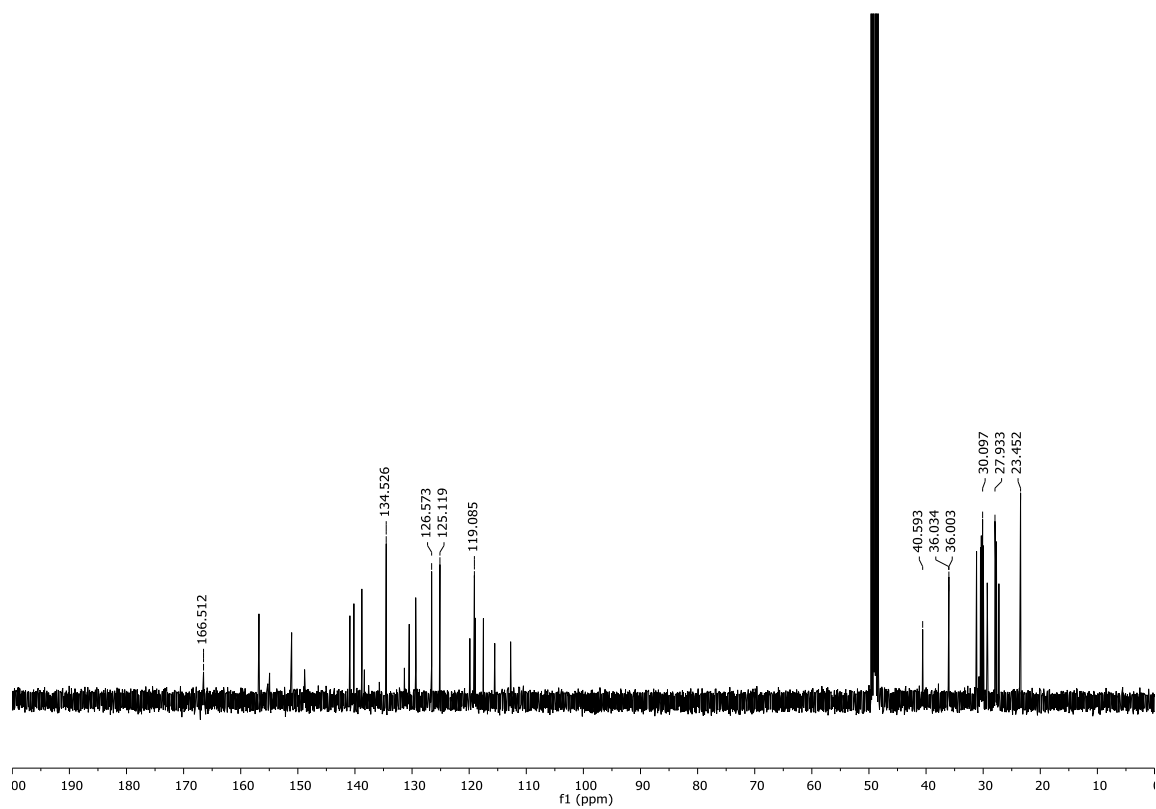


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[b]quinolin-12-yl)amino]nonyl}-8-hydroxyquinoline-2-carboxamide (25g)

^1H NMR (400 MHz, CD_3OD)

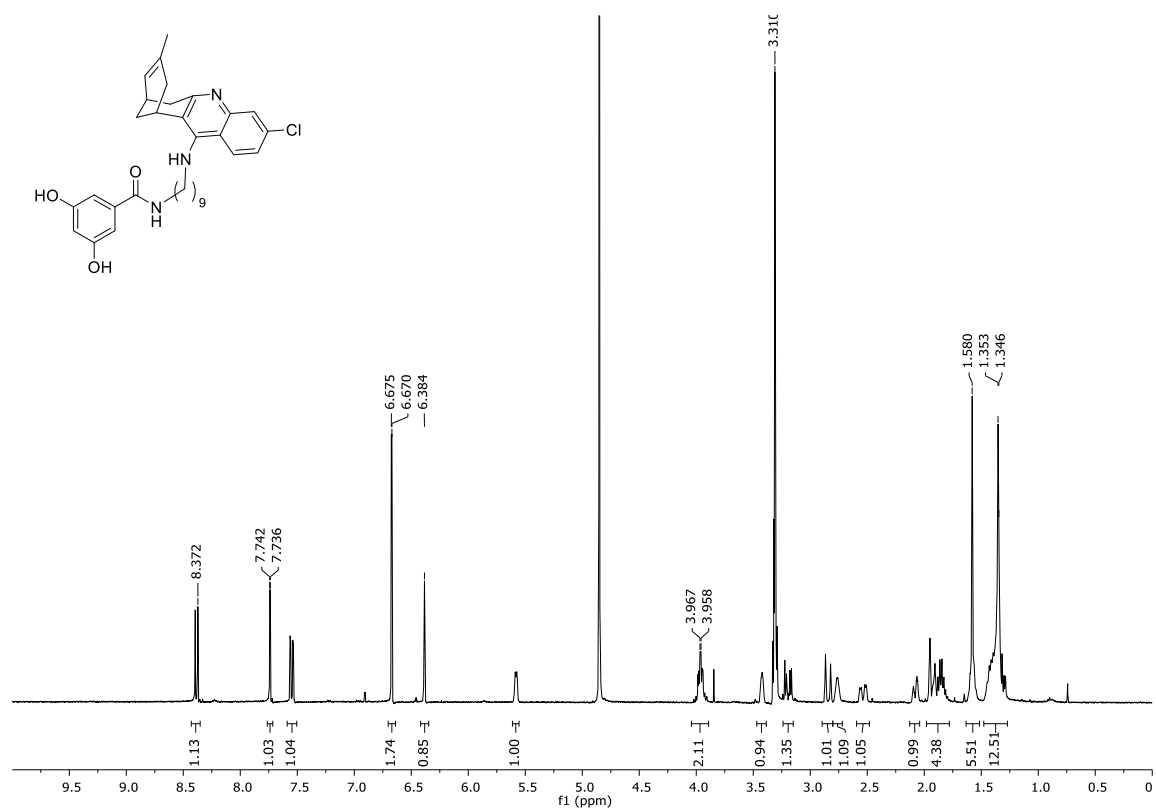


^{13}C NMR (100.6 MHz, CD_3OD)

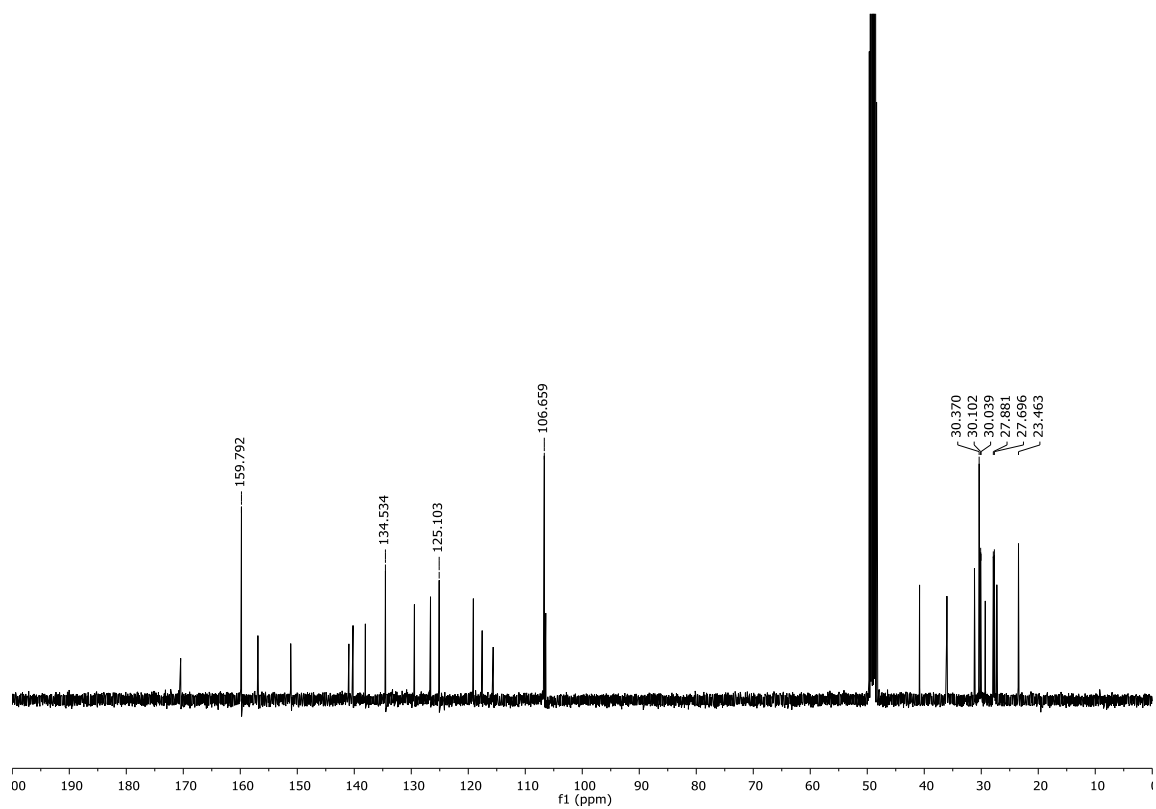


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[b]quinolin-12-yl)amino]nonyl}-3,5-hydroxybenzamide (44)

¹H NMR (400 MHz, CD₃OD)

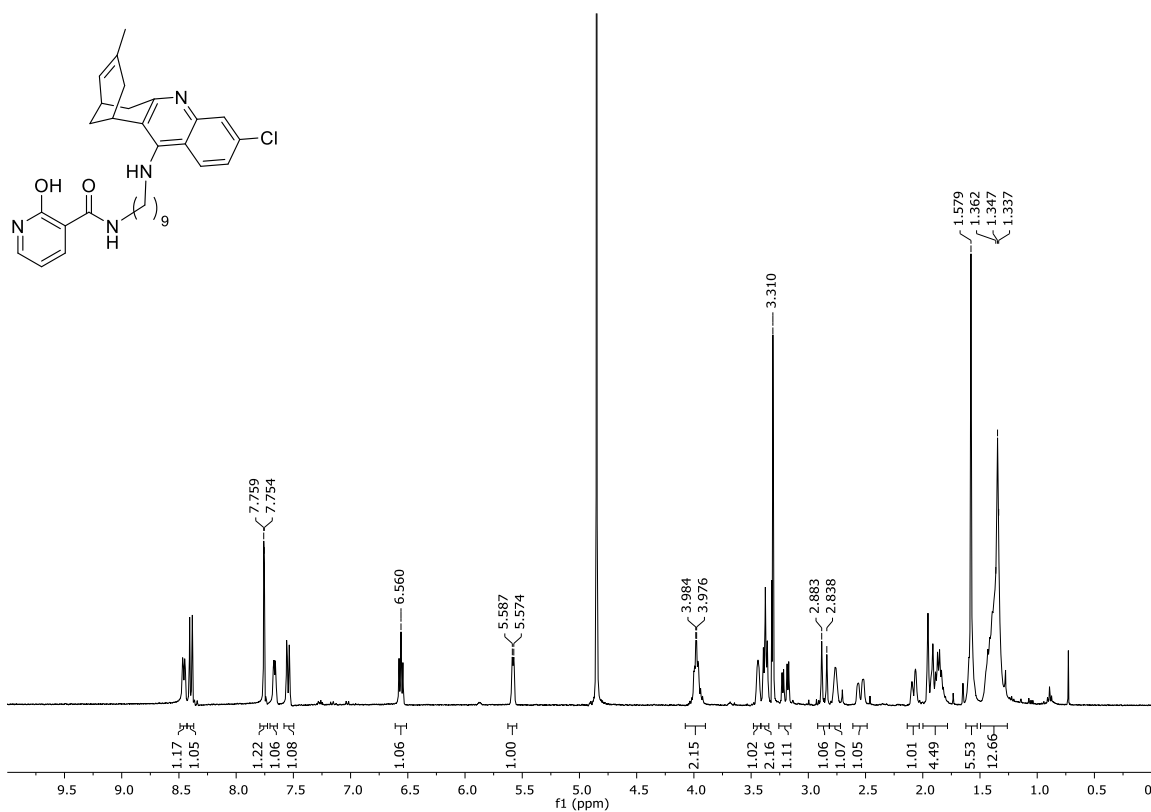


¹³C NMR (100.6 MHz, CD₃OD)

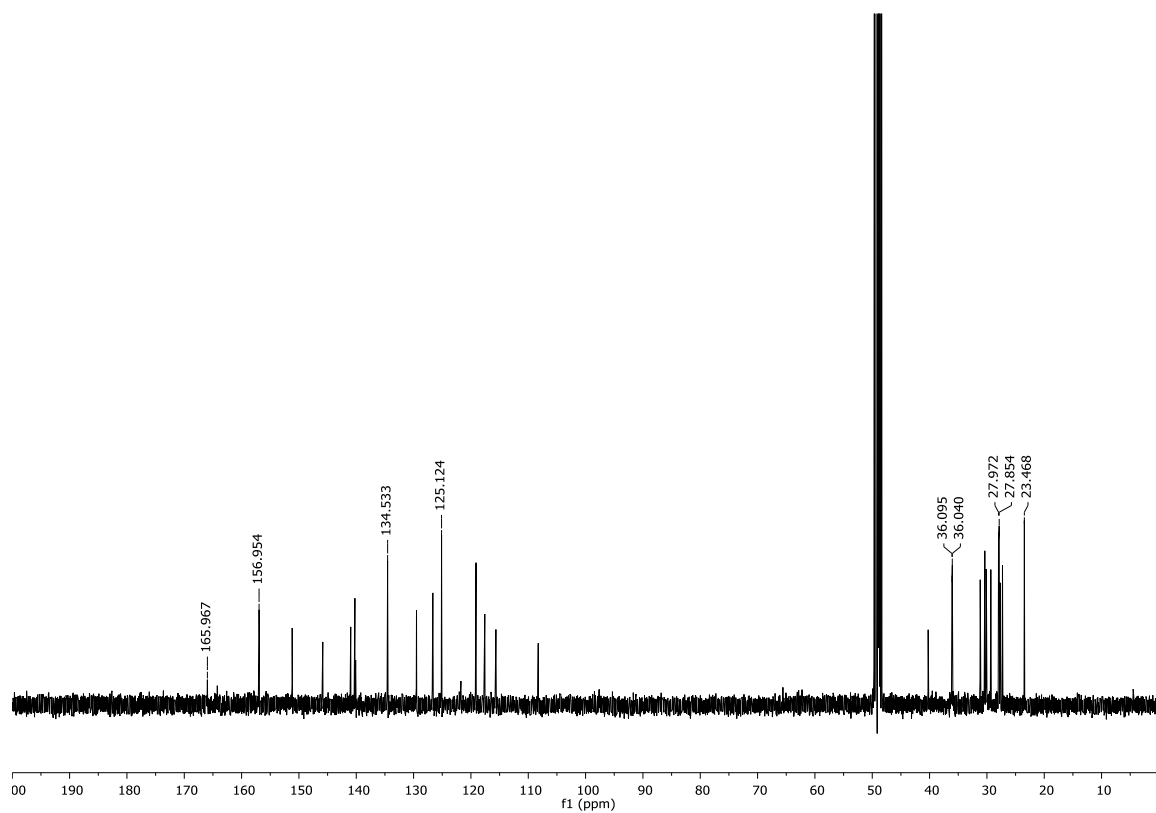


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[b]quinolin-12-yl)amino]nonyl}-2-hydroxypyridine-3-carboxamide (45)

¹H NMR (400 MHz, CD₃OD)

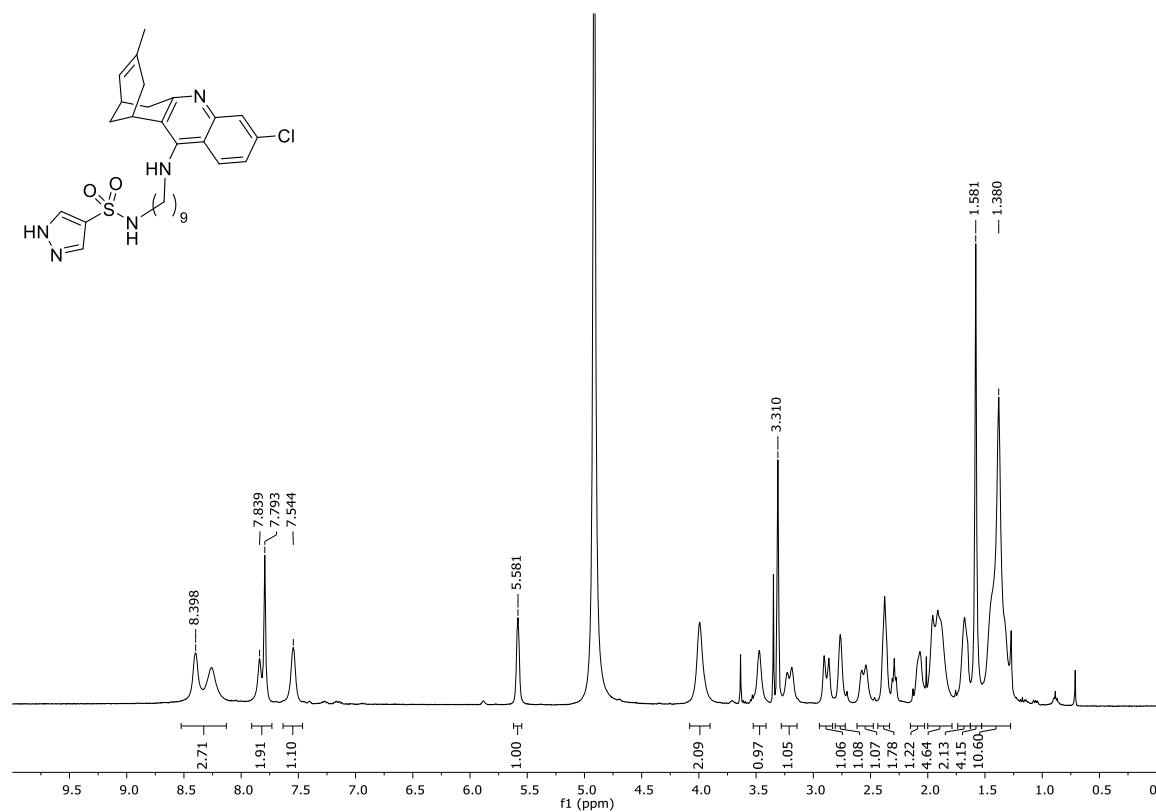


¹³C NMR (100.6 MHz, CD₃OD)

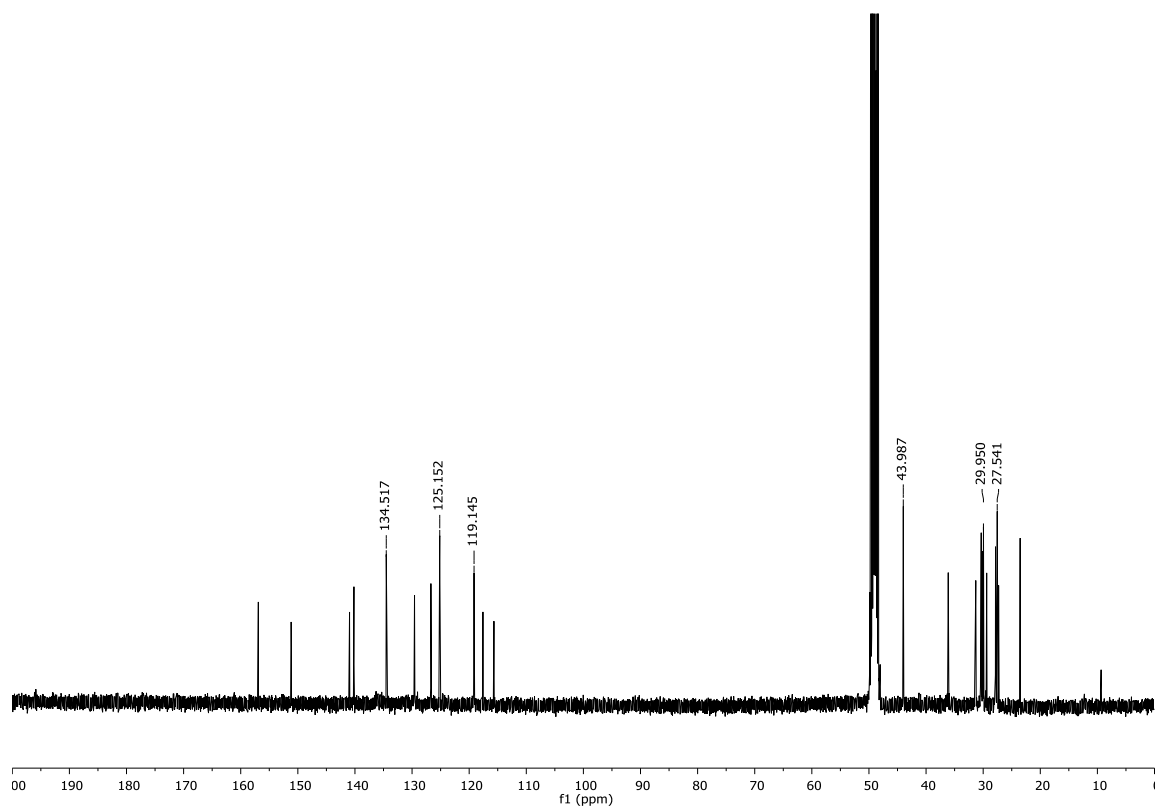


(±)-N-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[b]quinolin-12-yl)amino]nonyl}-1H-pyrazole-4-sulfonamide (46)

¹H NMR (400 MHz, CD₃OD)

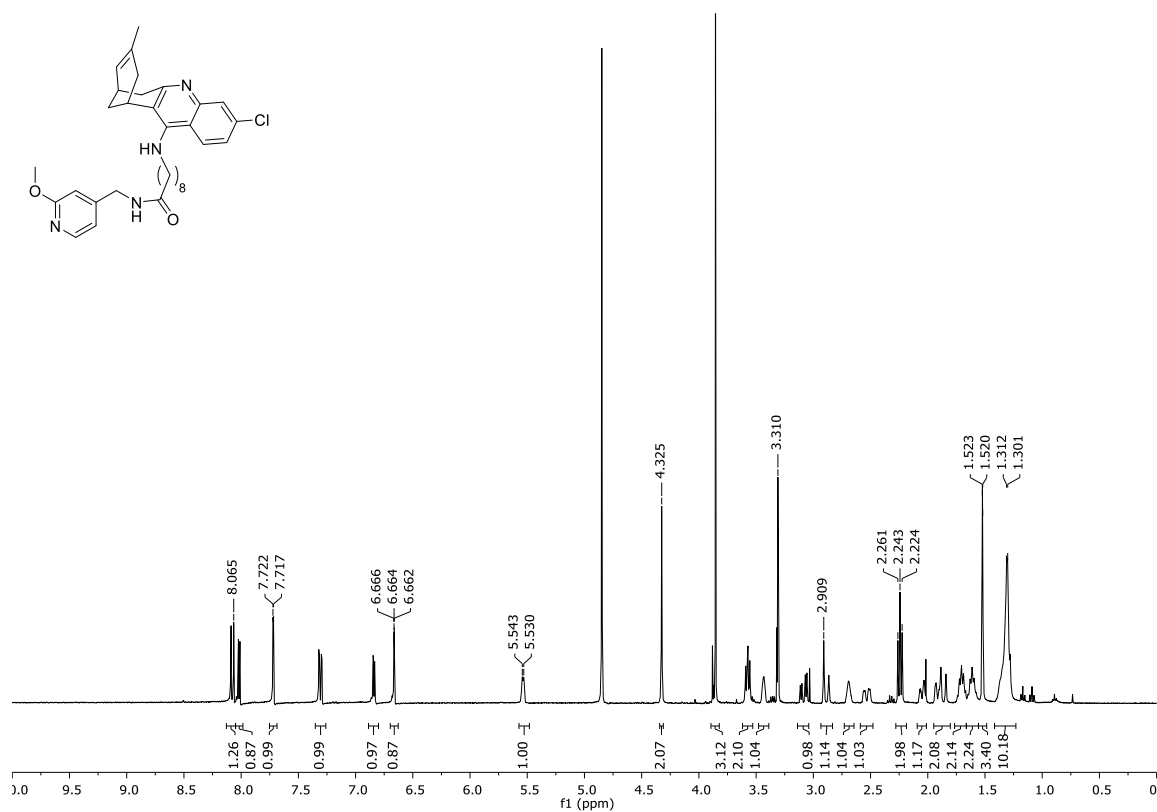


¹³C NMR (100.6 MHz, CD₃OD)

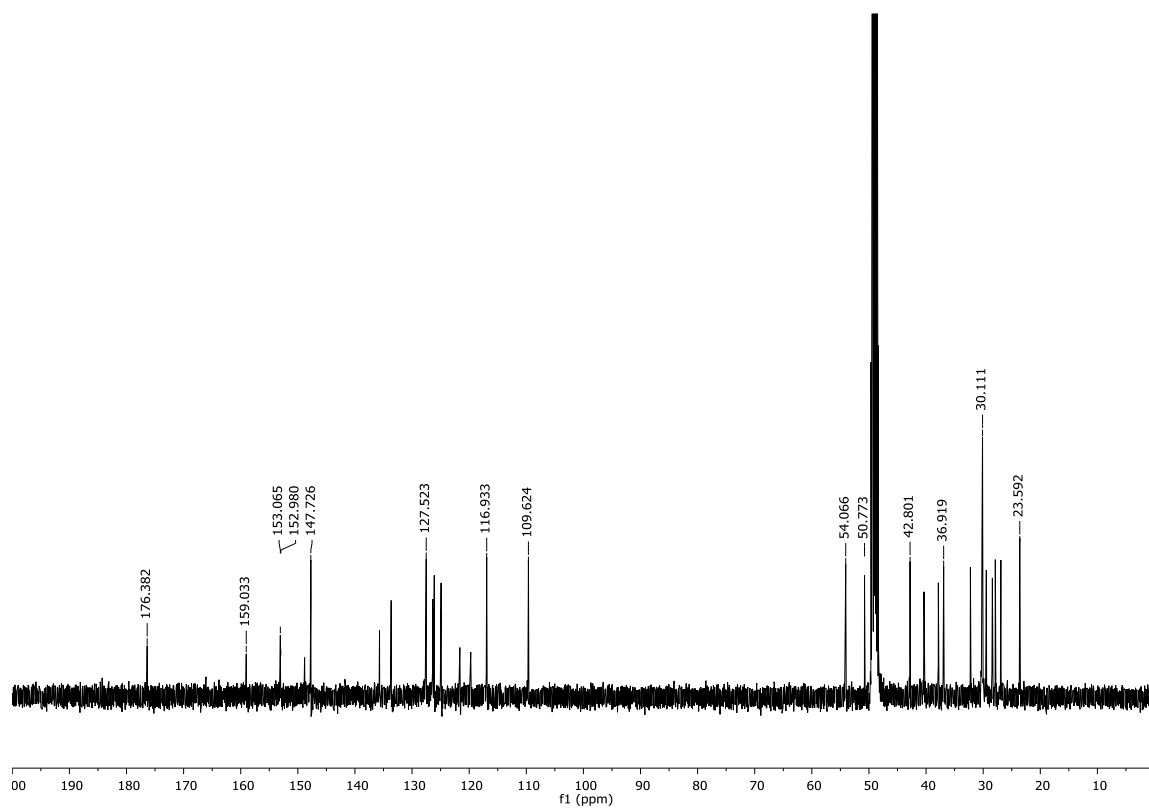


(±)-9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[b]quinolin-12-yl)amino]-N-[(2-methoxy-4-pyridyl)methyl]nonanamide (48)

¹H NMR (400 MHz, CD₃OD)

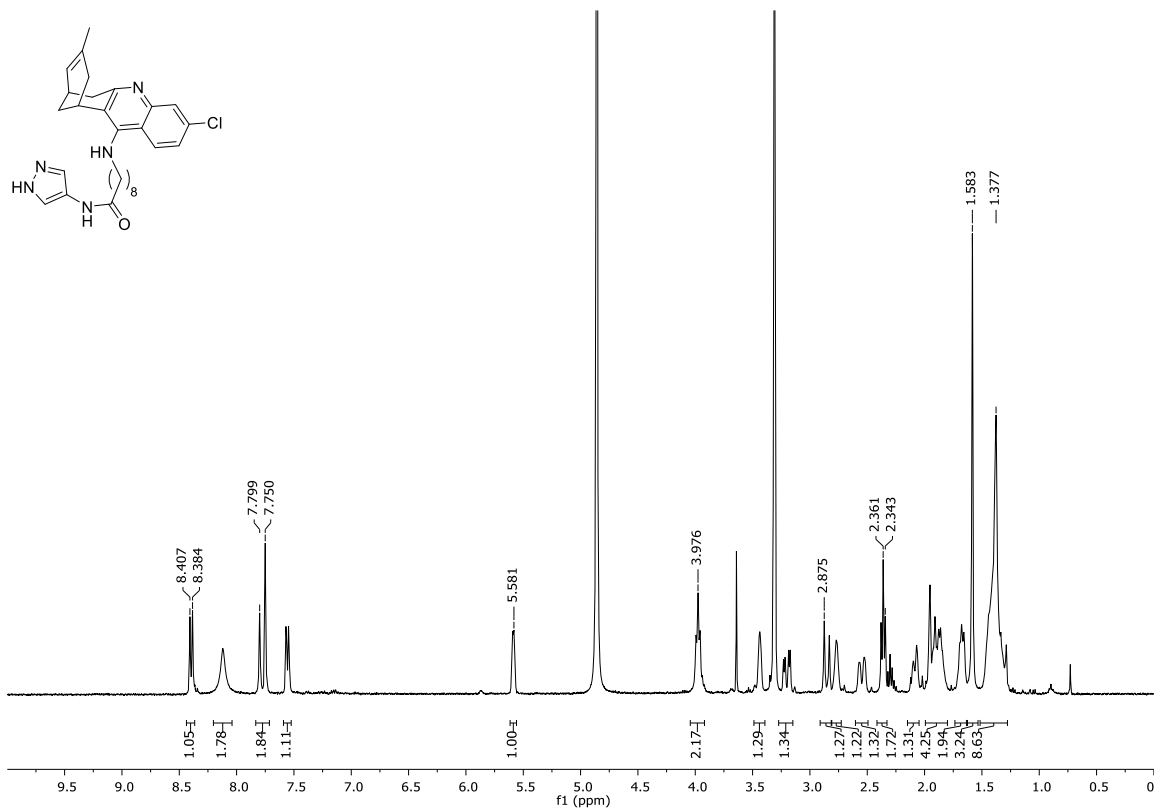


¹³C NMR (100.6 MHz, CD₃OD)

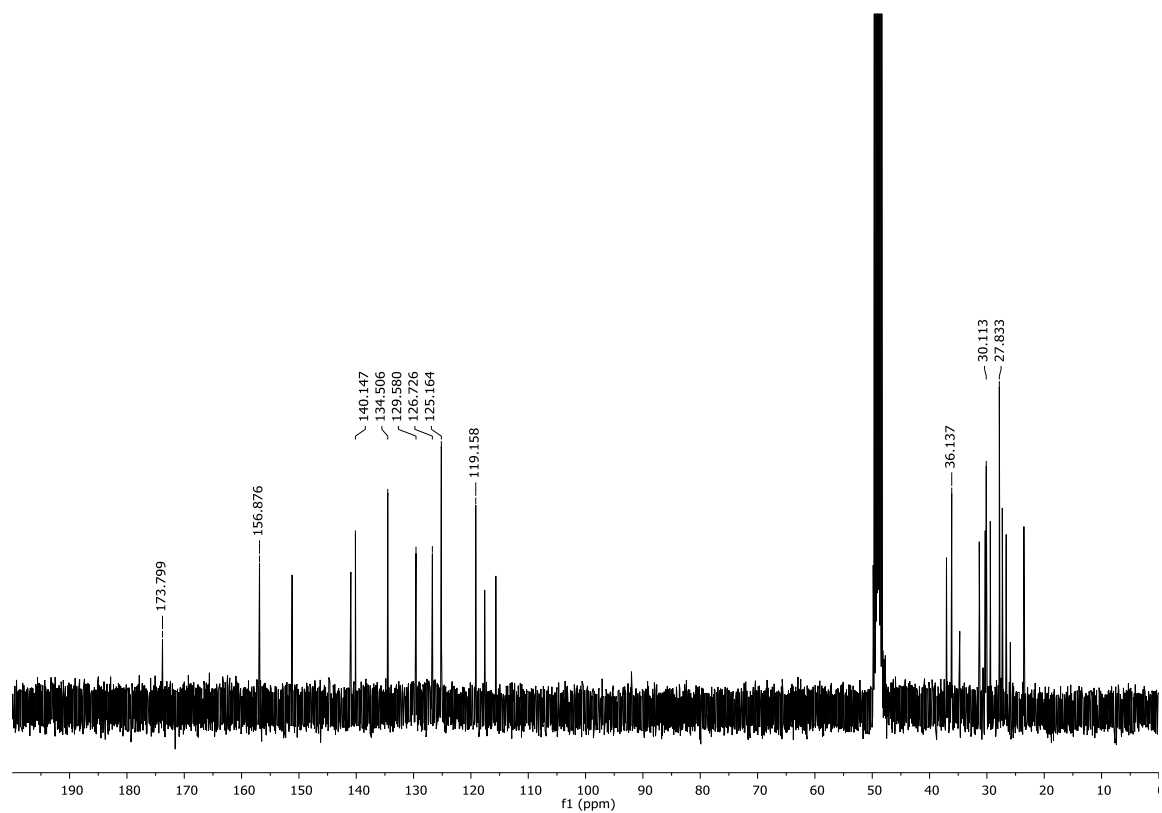


(±)-9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[b]quinolin-12-yl)amino]-N-(1H-pyrazol-4-yl)nonanamide (49)

¹H NMR (400 MHz, CD₃OD)

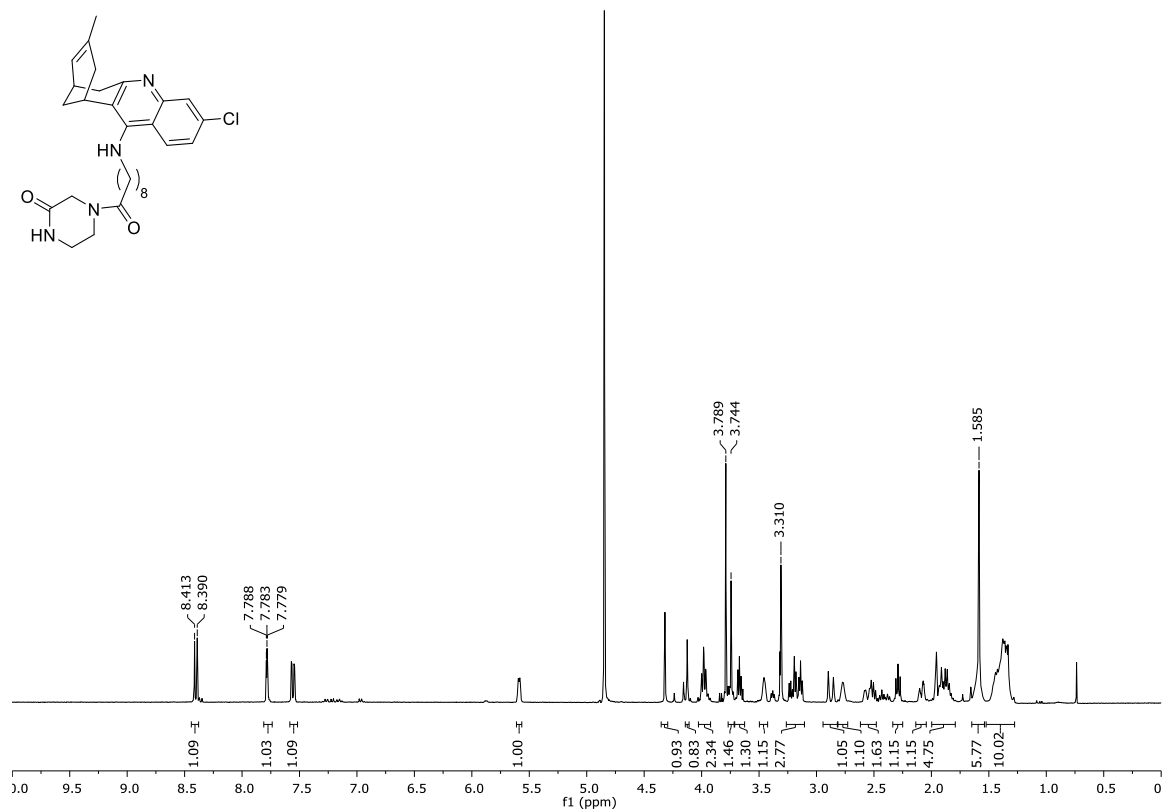


¹³C NMR (100.6 MHz, CD₃OD)

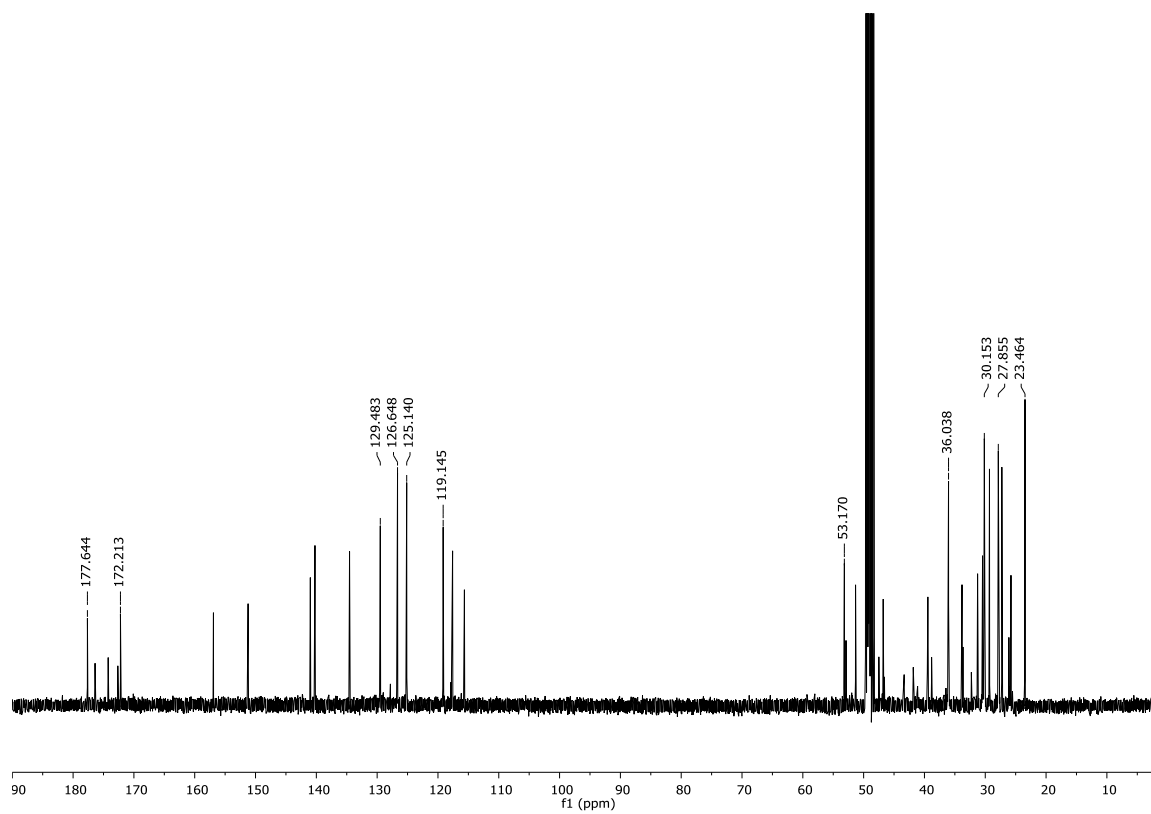


(±)-4-{9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[b]quinolin-12-yl)amino]nonanoyl}piperazin-2-one (50)

¹H NMR (400 MHz, CD₃OD)

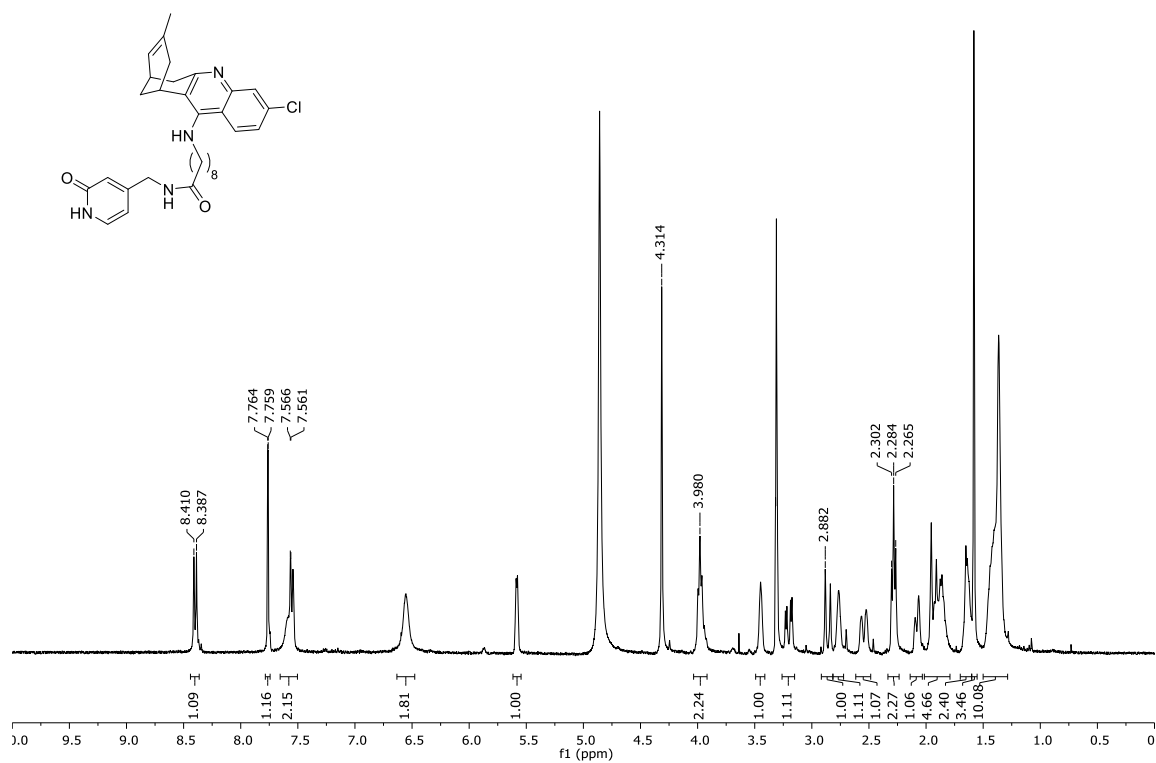


¹³C NMR (100.6 MHz, CD₃OD)

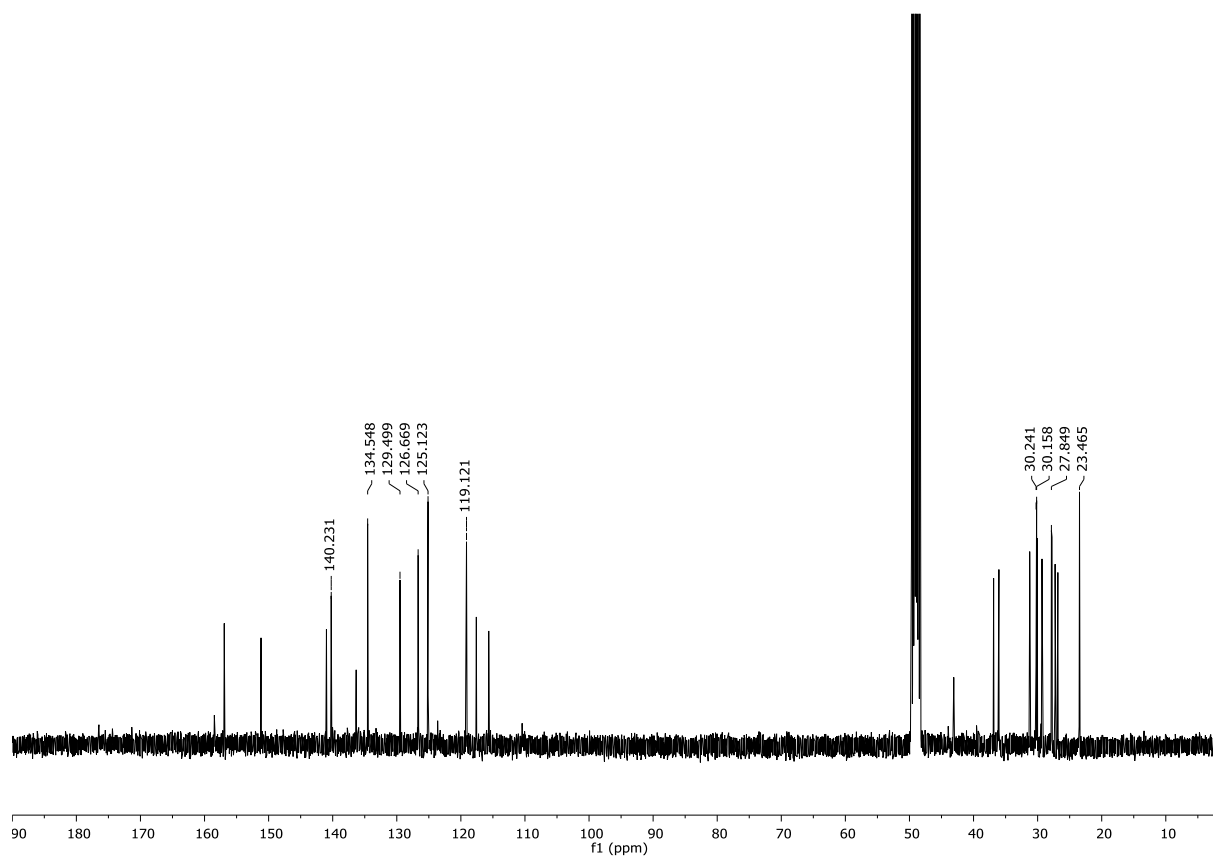


(±)-9-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[b]quinolin-12-yl)amino]-N-[(2-oxo-1,2-dihydro-4-pyridyl)methyl]nonanamide (51)

¹H NMR (400 MHz, CD₃OD)

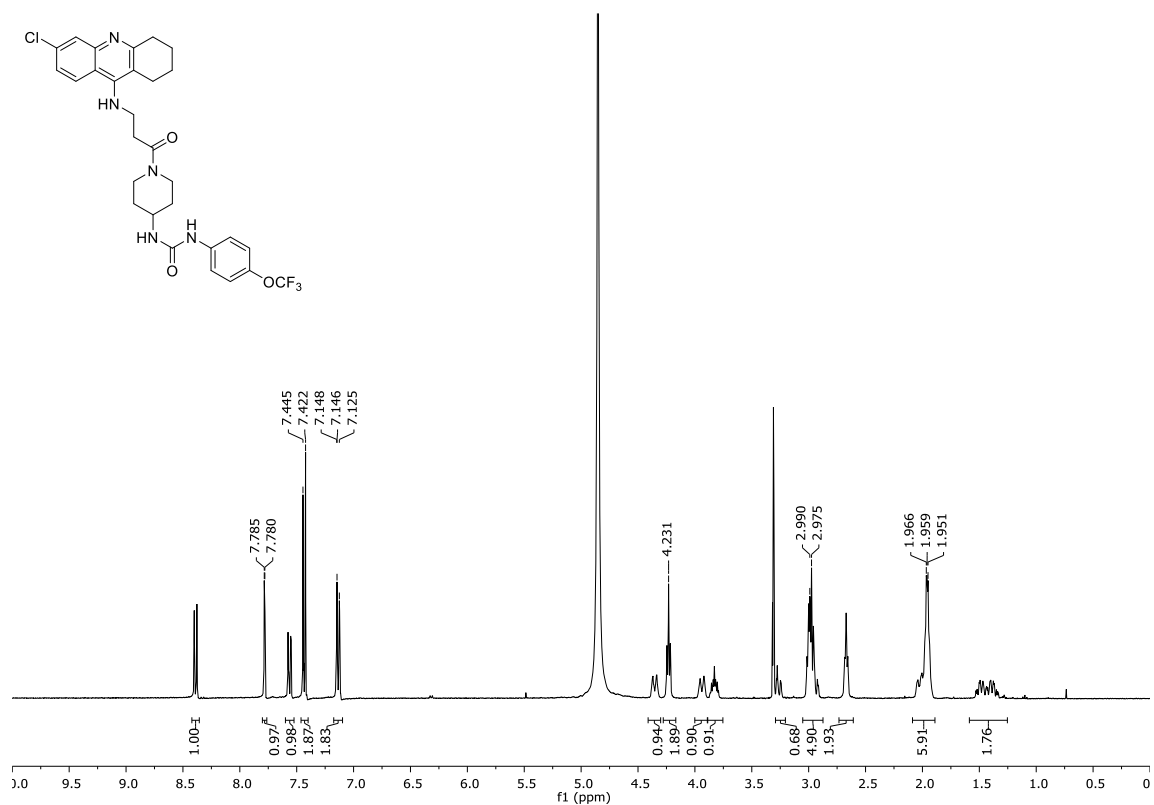


¹³C NMR (100.6 MHz, CD₃OD)

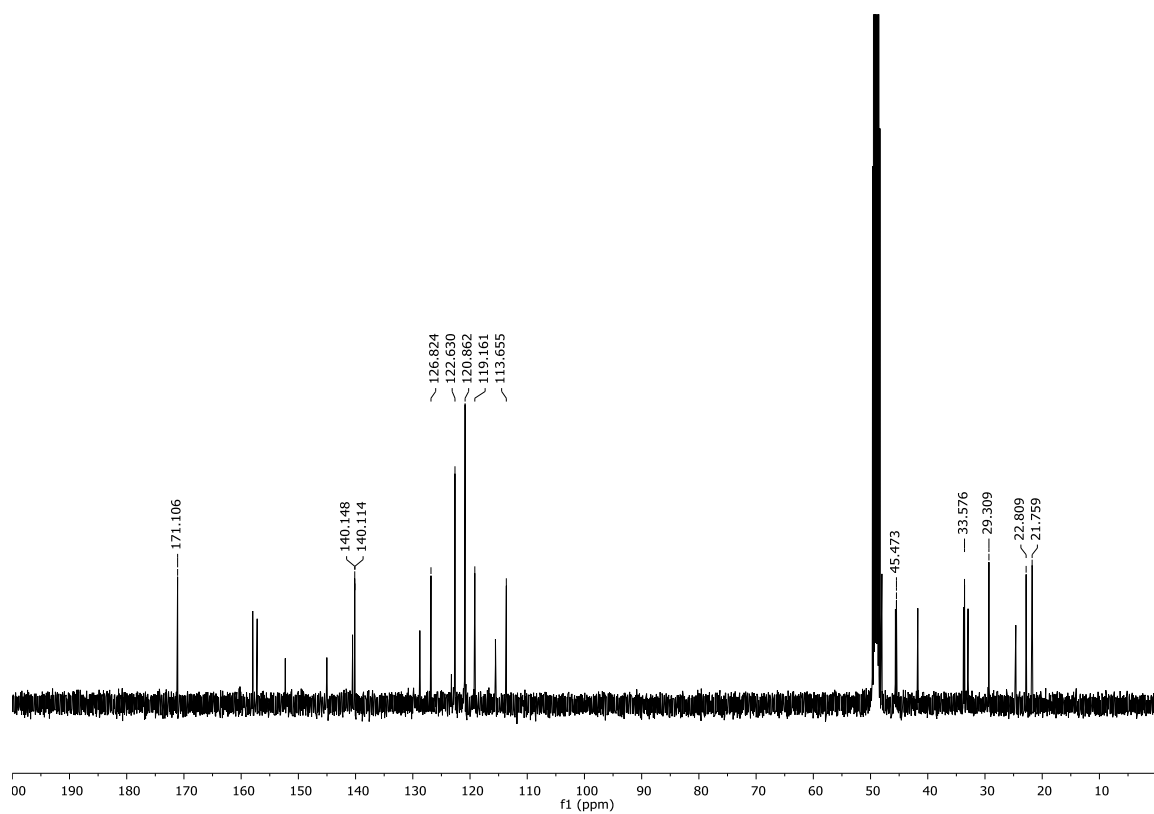


1-{1-{3-[(6-chloro-1,2,3,4-tetrahydroacridin-9-yl)amino]propanoyl}piperidin-4-yl}-3-[4-(trifluoromethoxy)phenyl]urea (68a)

¹H NMR (400 MHz, CD₃OD)

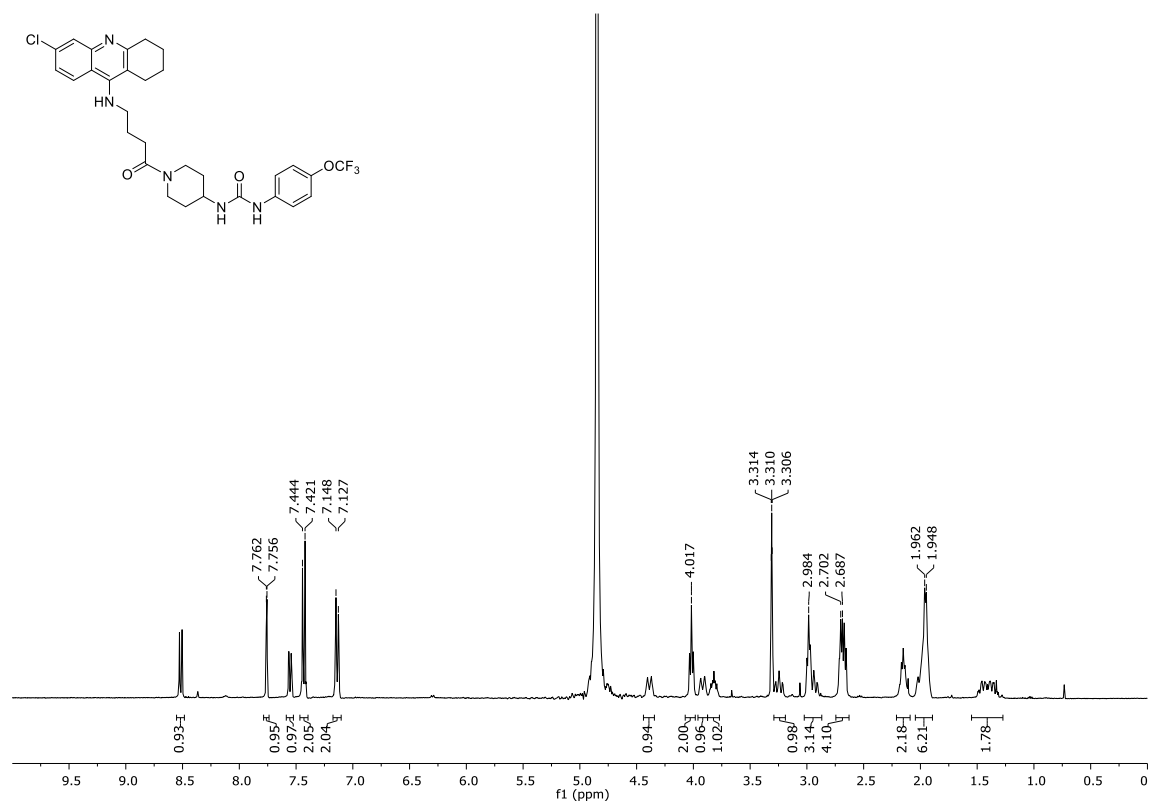


¹³C NMR (100.6 MHz, CD₃OD)

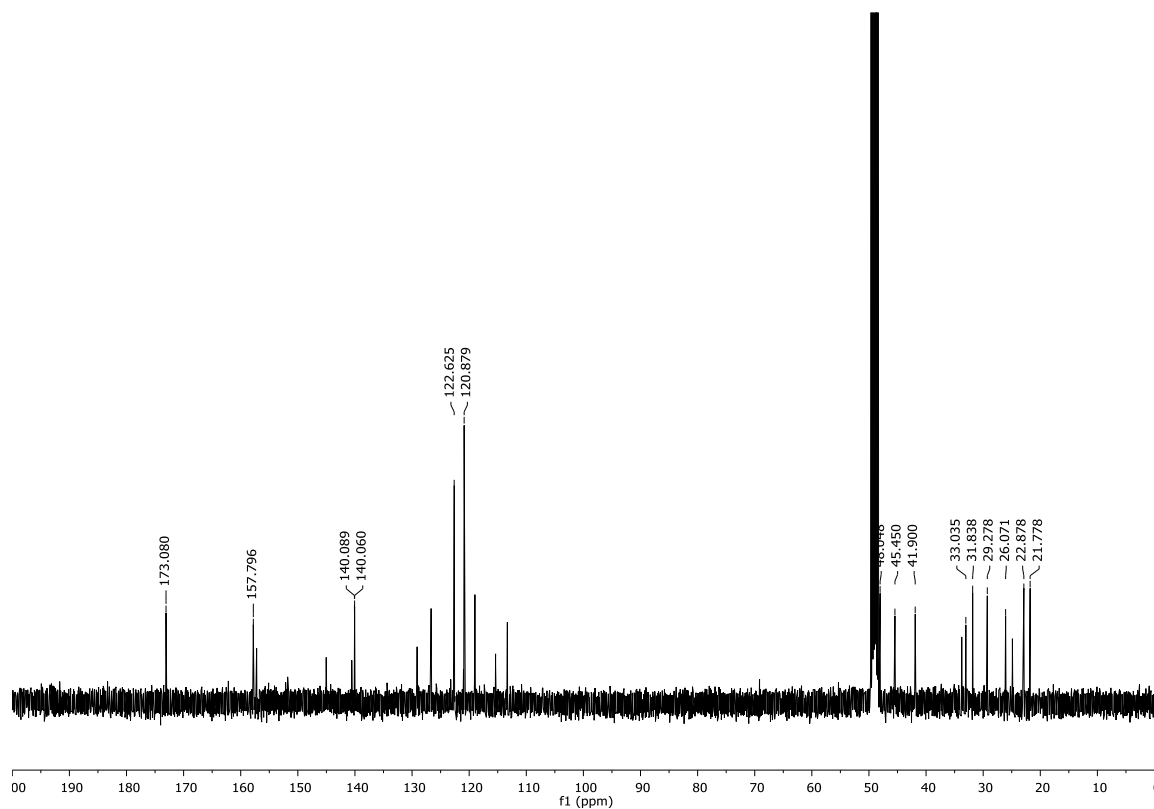


1-{1-[4-[(6-chloro-1,2,3,4-tetrahydroacridin-9-yl)amino]butanoyl]piperidin-4-yl}-3-[4-(trifluoromethoxy)phenyl]urea (68b)

¹H NMR (400 MHz, CD₃OD)

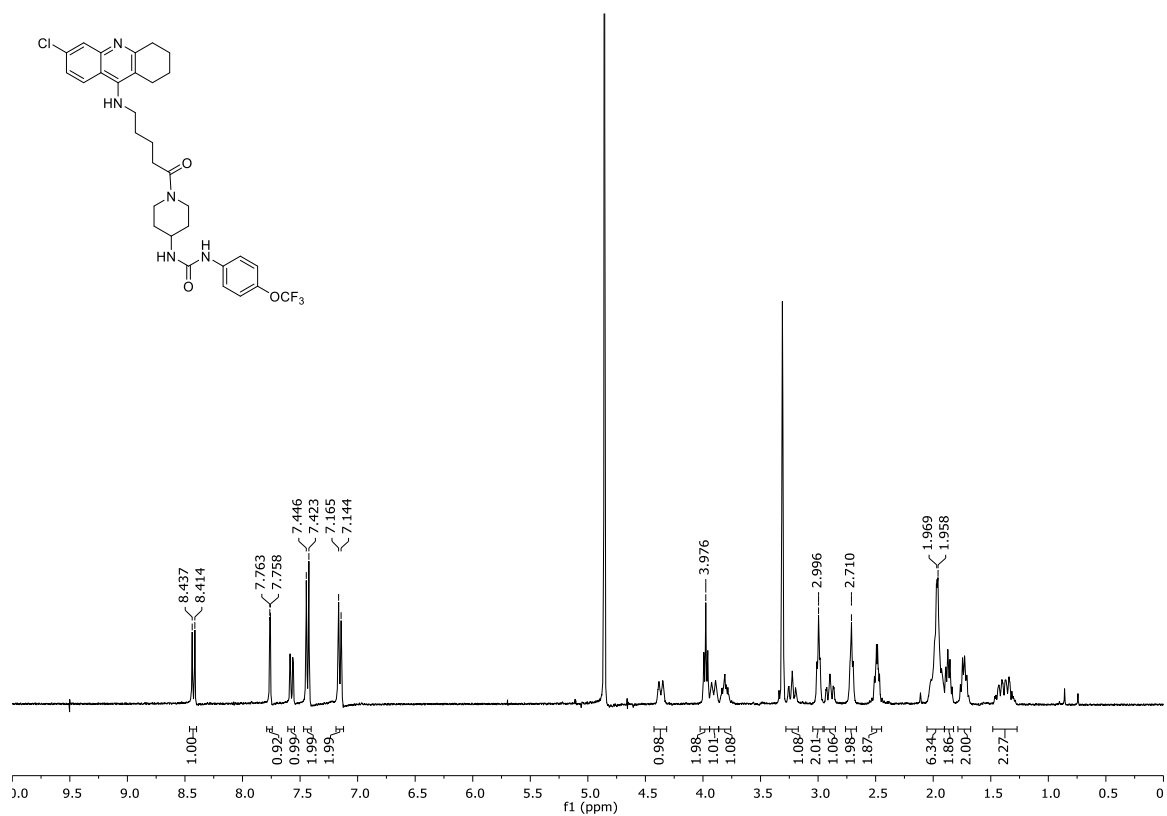


¹³C NMR (100.6 MHz, CD₃OD)

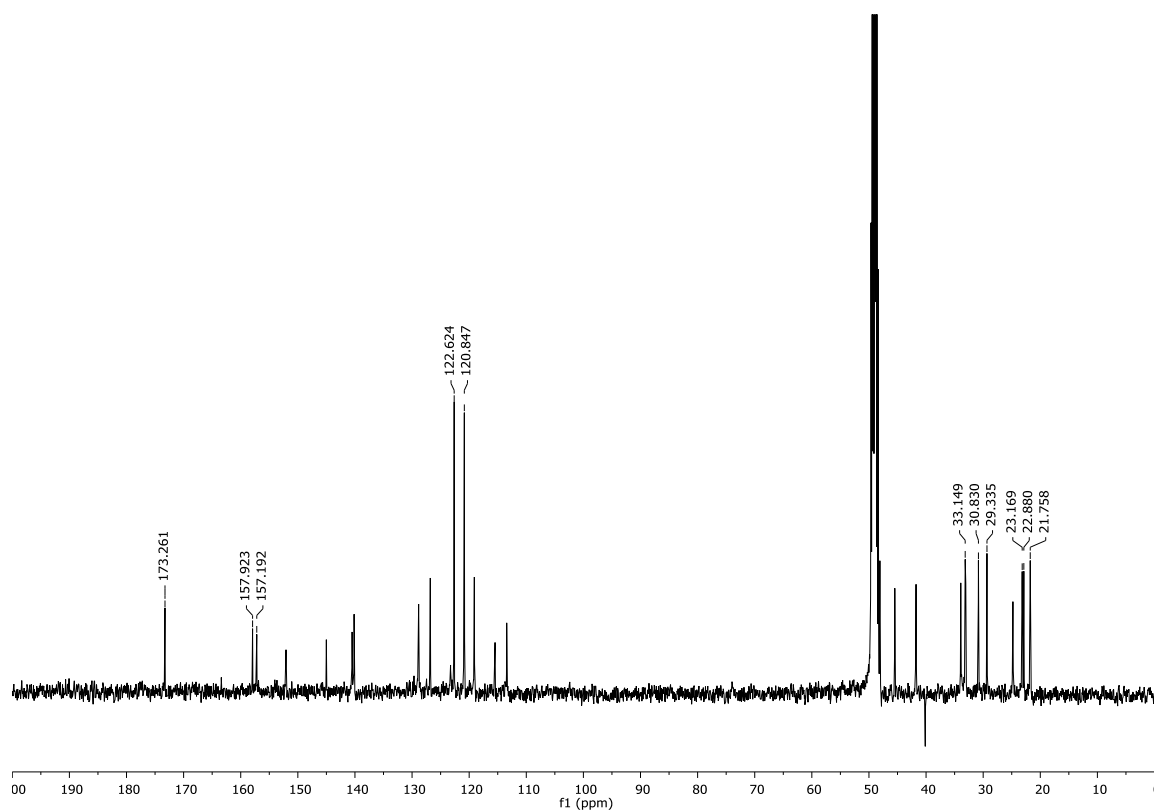


1-{1-[5-[(6-chloro-1,2,3,4-tetrahydroacridin-9-yl)amino]pentanoyl]piperidin-4-yl}-3-[4-(trifluoromethoxy)phenyl]urea (68c)

¹H NMR (400 MHz, CD₃OD)

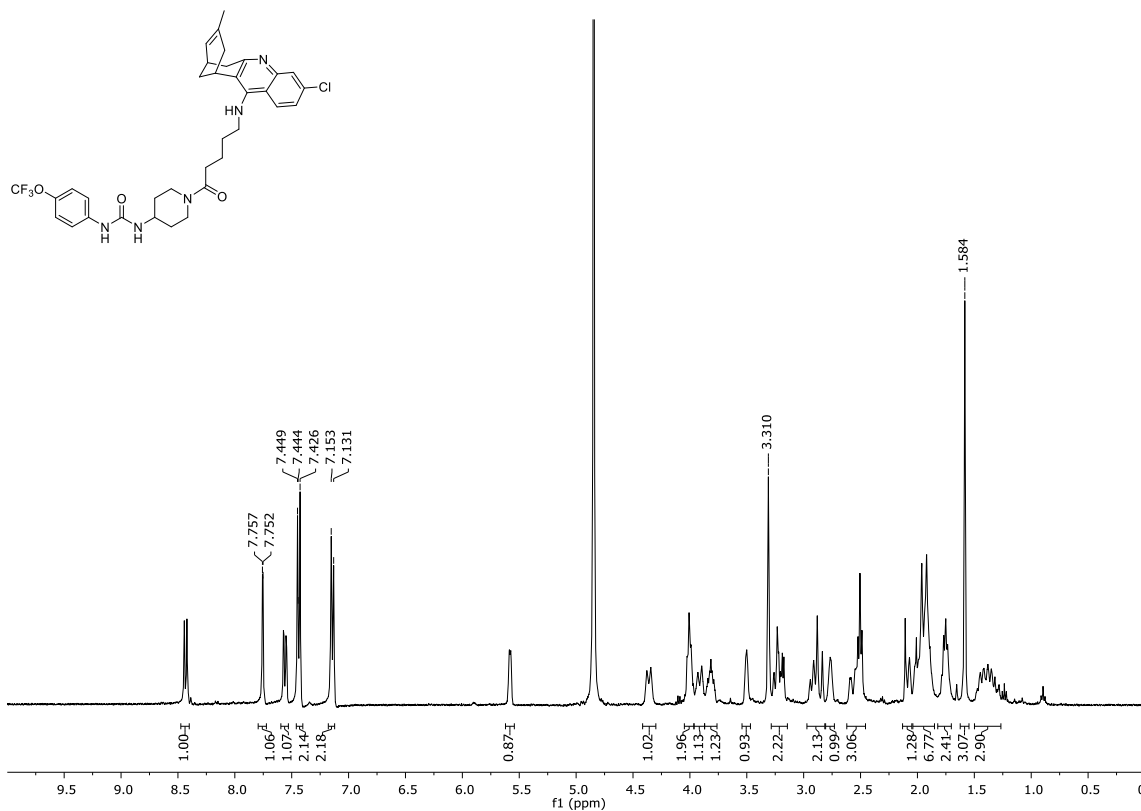


¹³C NMR (100.6 MHz, CD₃OD)

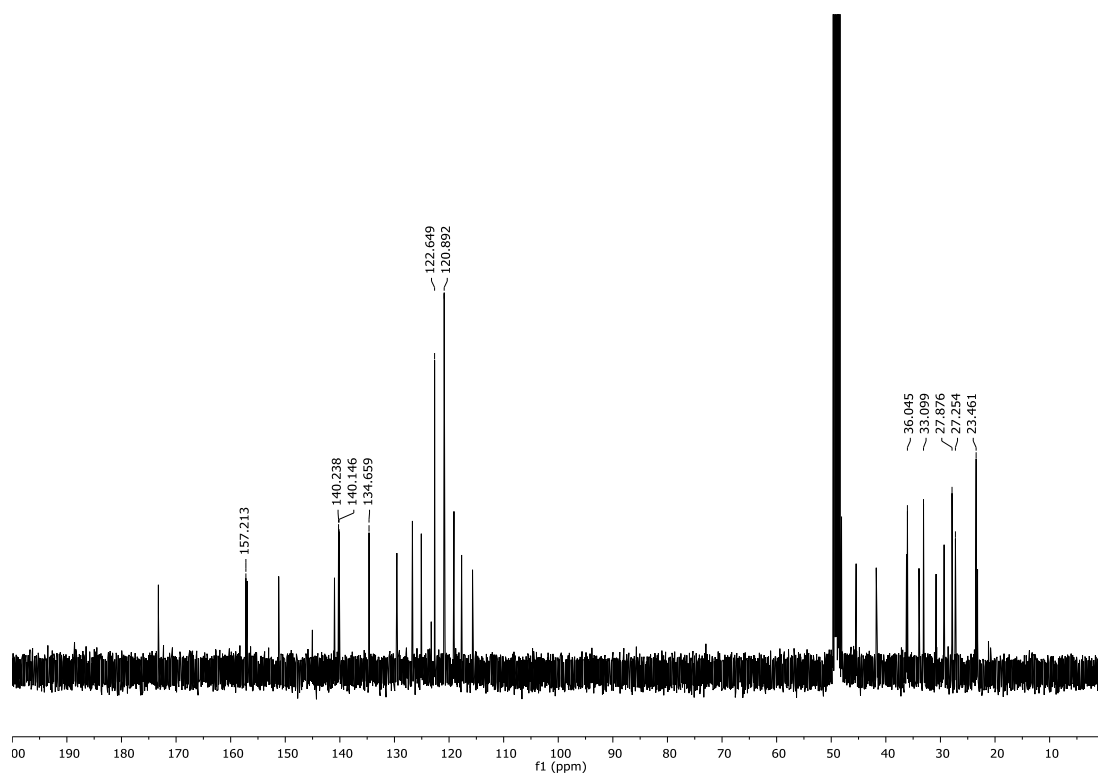


(+)-(7R,11R)-1-{1-[5-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[*b*]quinolin-12-yl)amino]pentanoyl]piperidin-4-yl}-3-[4-(trifluoromethoxy)phenyl]urea [(+)-16]

¹H NMR (400 MHz, CD₃OD)

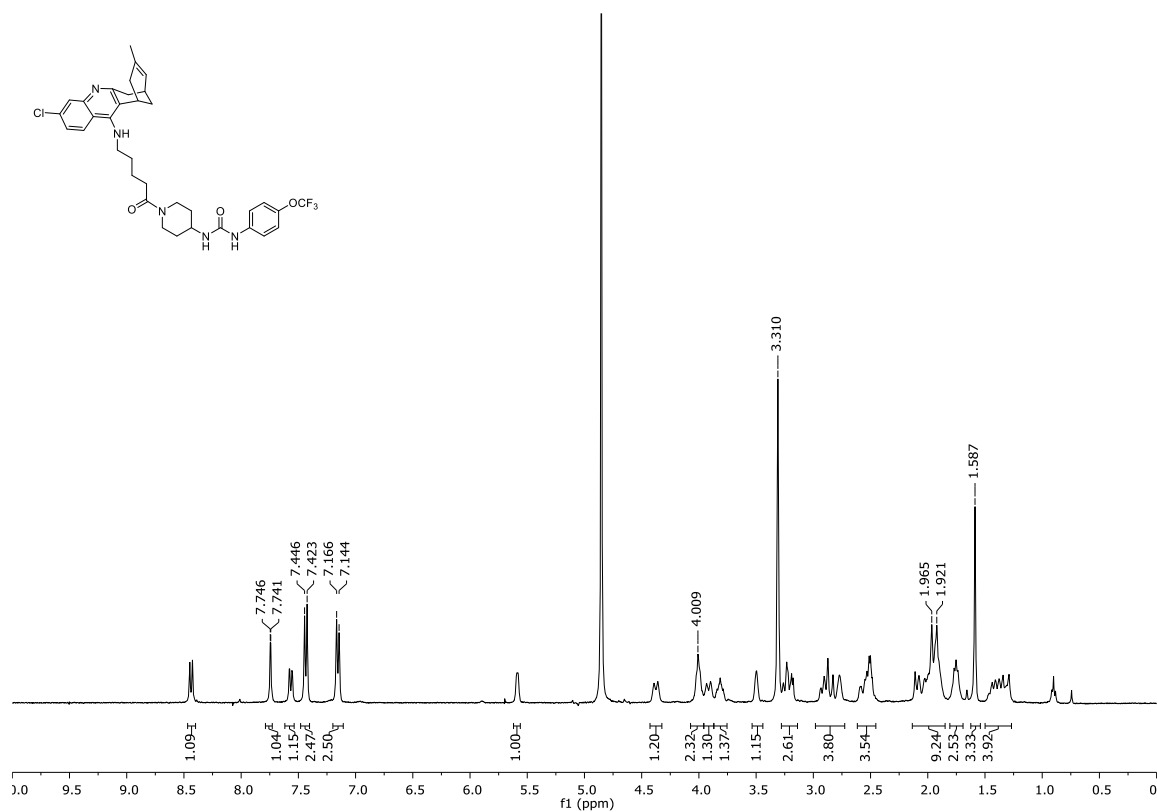


¹³C NMR (100.6 MHz, CD₃OD)



(-)-(7*S*,11*S*)-1-{1-[5-[(3-chloro-6,7,10,11-tetrahydro-9-methyl-7,11-methanocycloocta[*b*]quinolin-12-yl)amino]pentanoyl]piperidin-4-yl}-3-[4-(trifluoromethoxy)phenyl]urea, [(*-*)-16]

¹H NMR (400 MHz, CD₃OD)



¹³C NMR (100.6 MHz, CD₃OD)

