Supplementary Materials for

Pd/C–H_2-Catalyzed One-Pot Aromatization–Deoxygenation of Dihydropyridinediones: A Green, Scalable Route to Alkyl Pyridines

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^{1}H and ^{13}C NMR spectra of products:

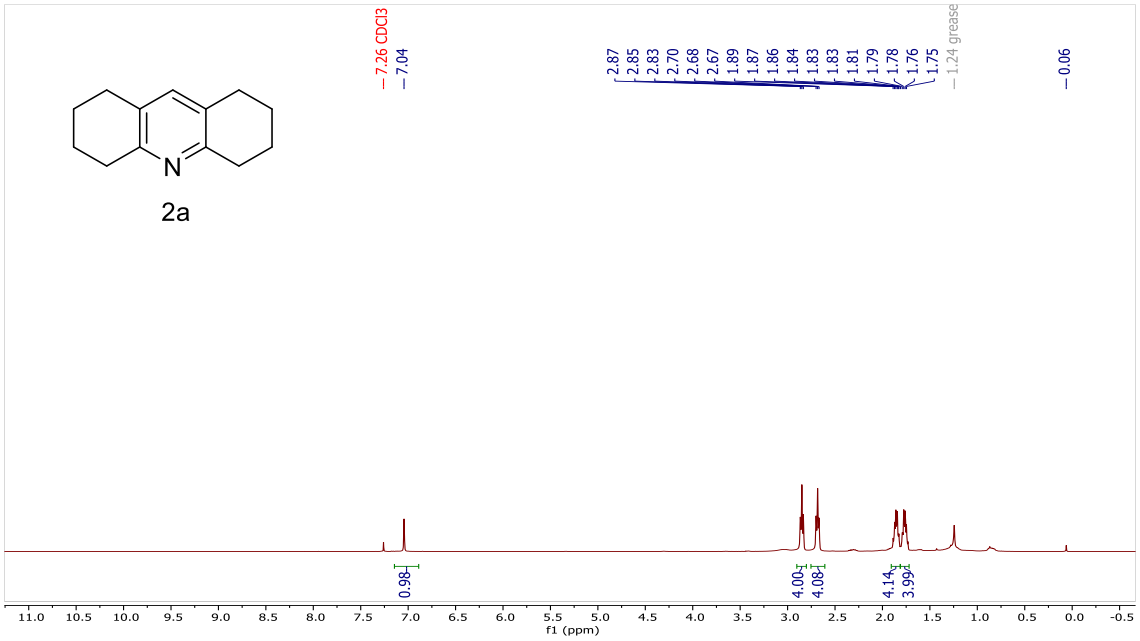

Figure S1: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **1,2,3,4,5,6,7,8-octahydroacridine (2a).**

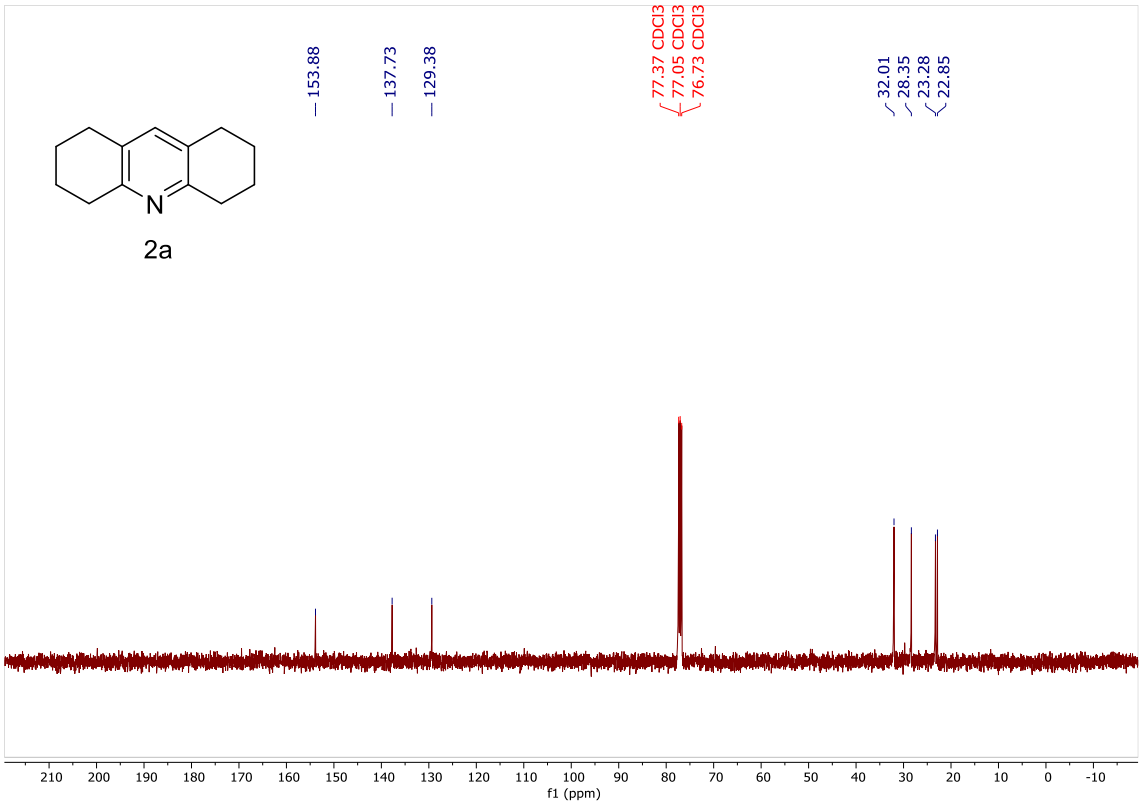

Figure S2: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **1,2,3,4,5,6,7,8-octahydroacridine (2a).**

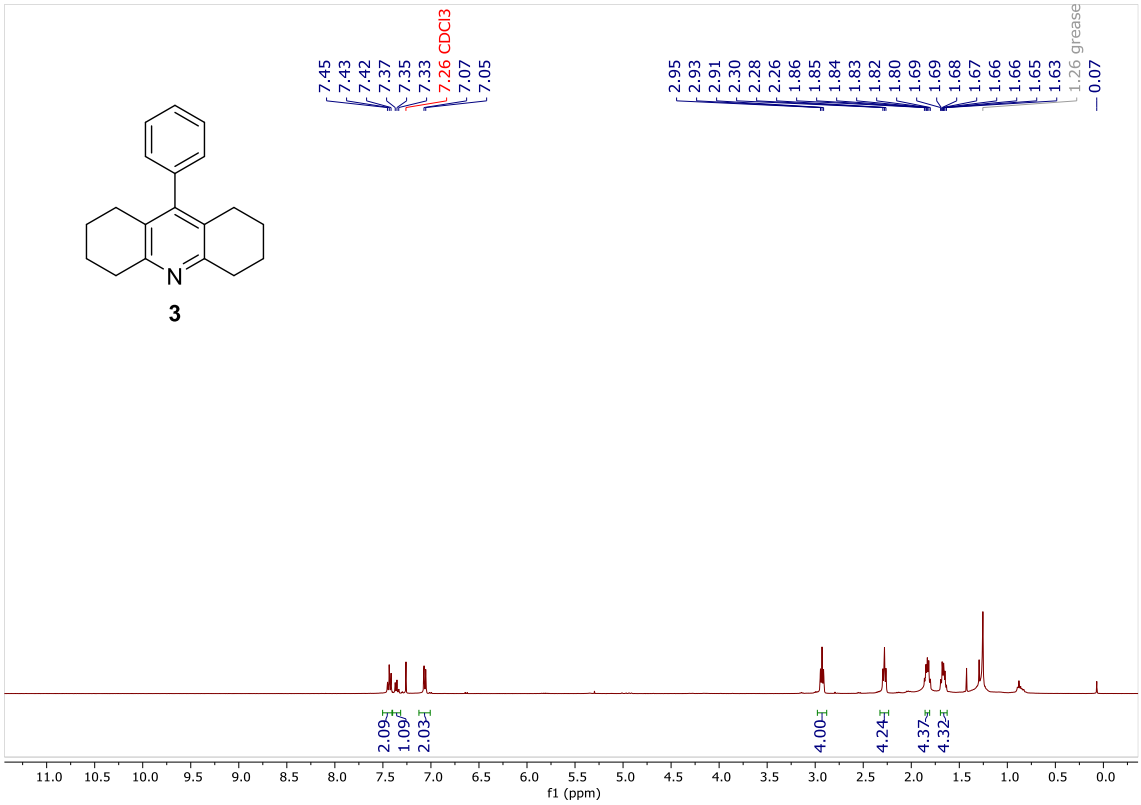

Figure S3: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **9-phenyl-1,2,3,4,5,6,7,8-octahydroacridine (3).**

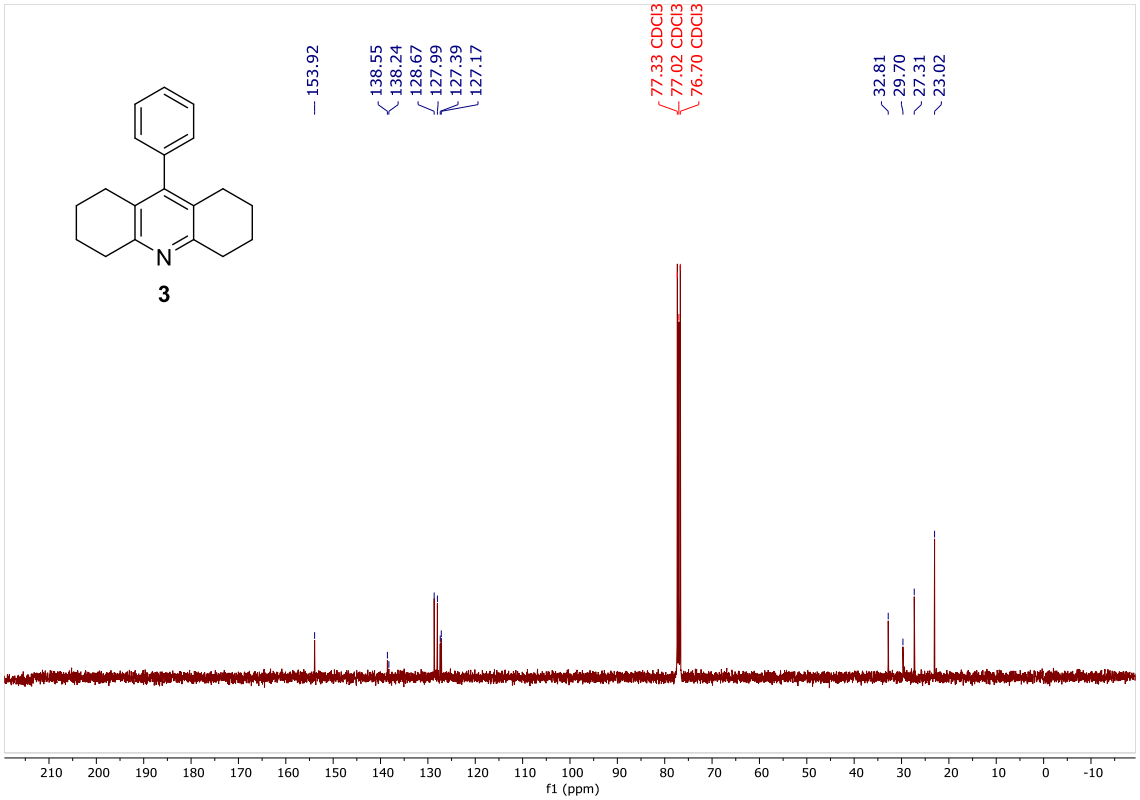

Figure S4: ^{13}C NMR spectrum ($CDCl_3$, 101 MHz) of **9-phenyl-1,2,3,4,5,6,7,8-octahydroacridine (3).**

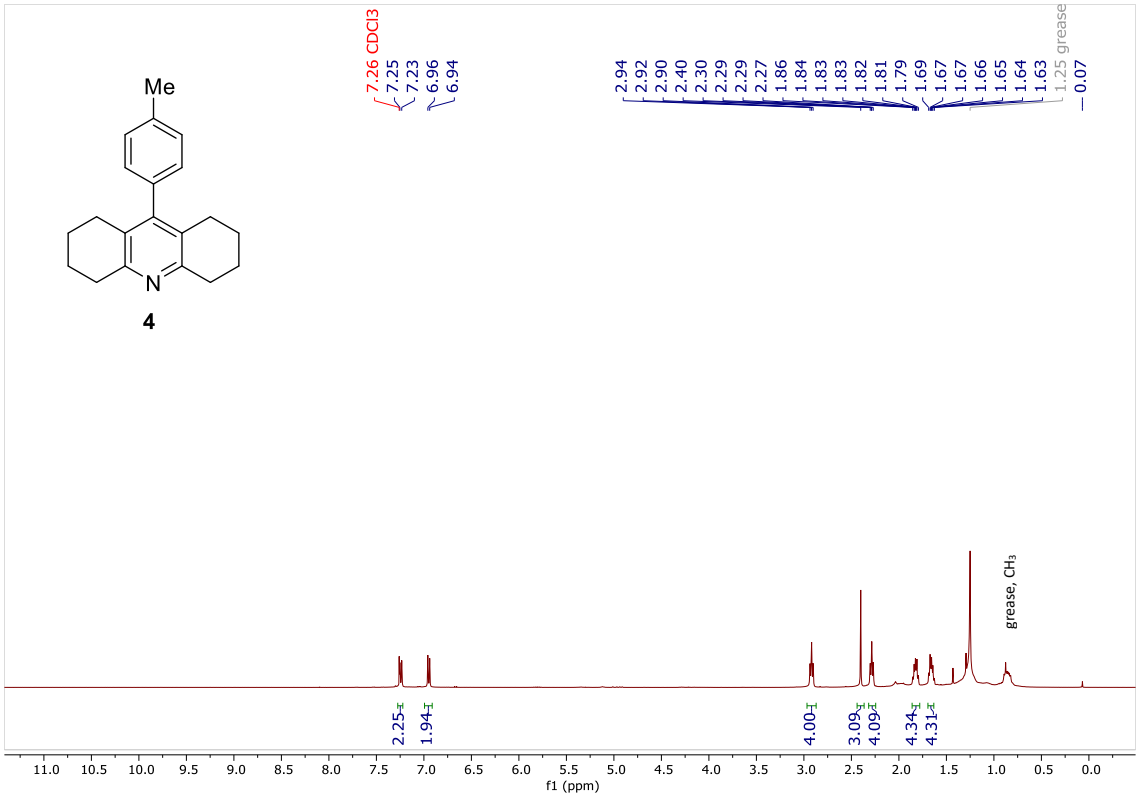

Figure S5: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **9-(*p*-tolyl)-1,2,3,4,5,6,7,8-octahydroacridine (4).**

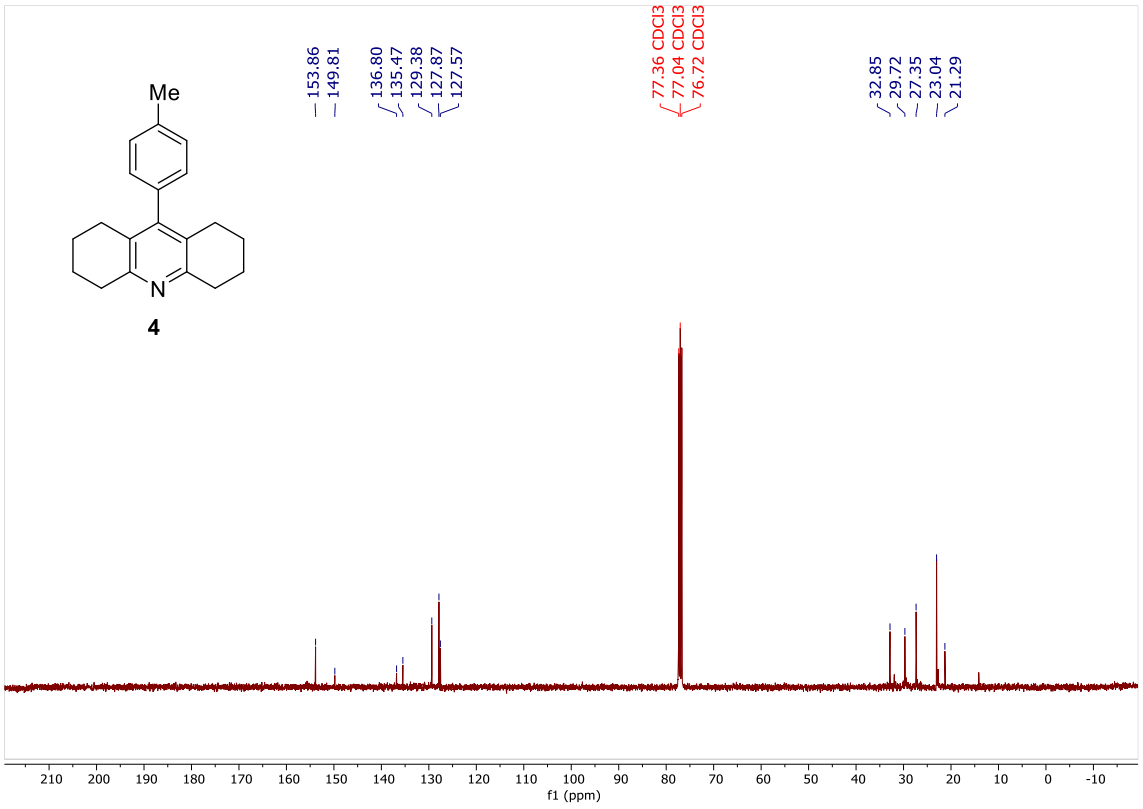

Figure S6: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **9-(*p*-tolyl)-1,2,3,4,5,6,7,8-octahydroacridine (4).**

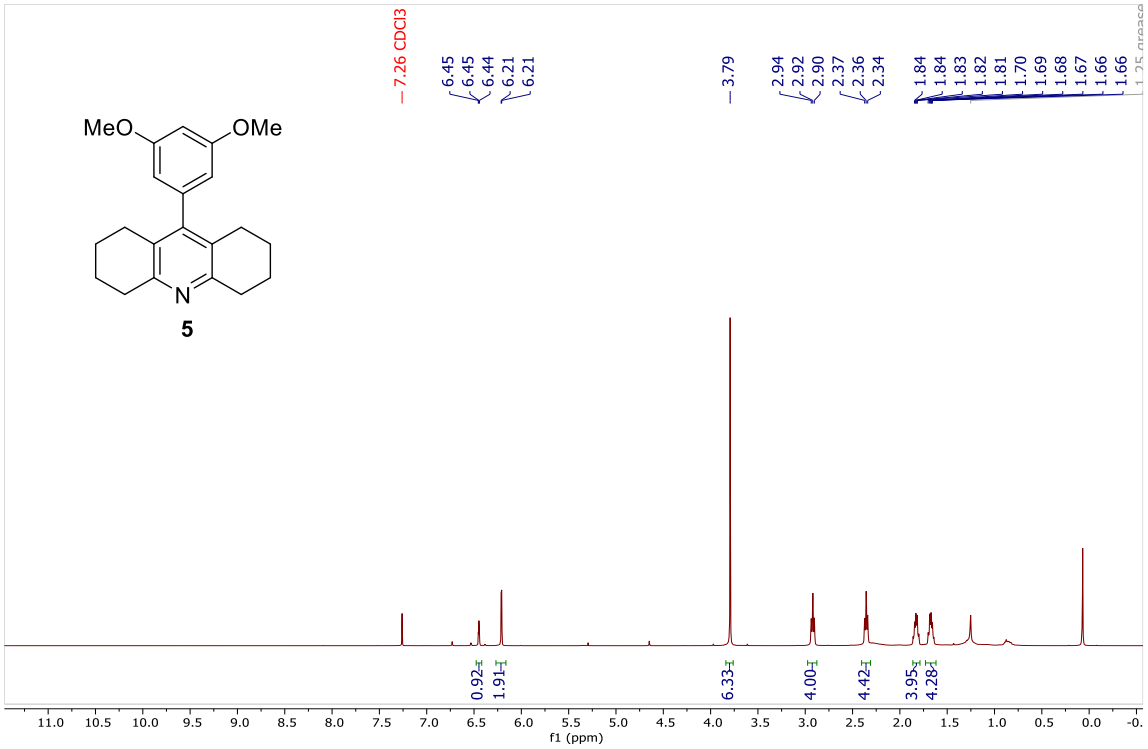

Figure S7: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **9-(3,5-dimethoxyphenyl)-1,2,3,4,5,6,7,8-octahydroacridine (5).**

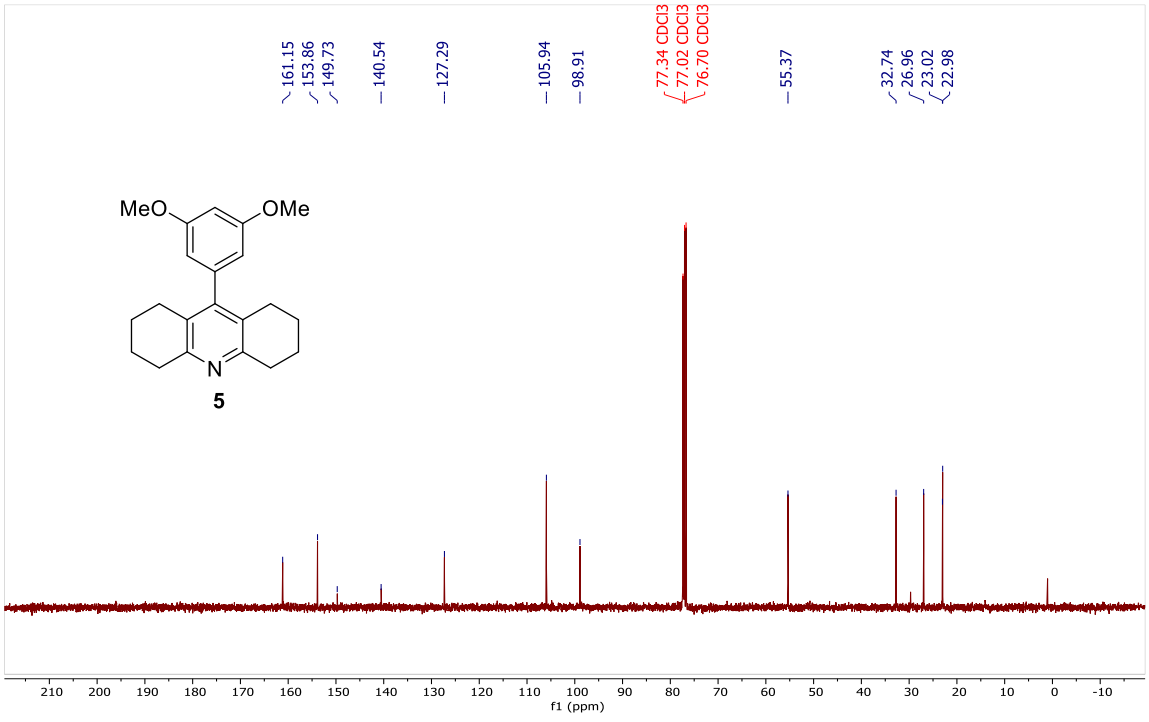

Figure S8: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **9-(3,5-dimethoxyphenyl)-1,2,3,4,5,6,7,8-octahydroacridine (5).**

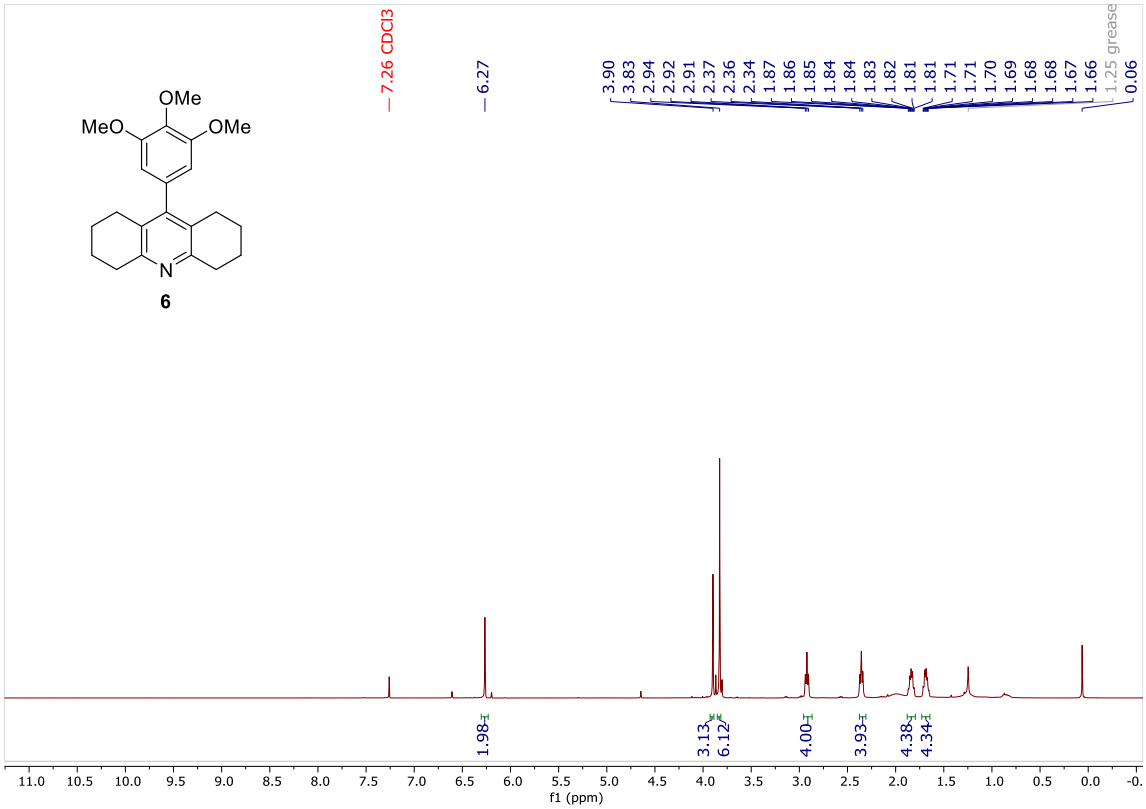

Figure S9: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **9-(3,4,5-trimethoxyphenyl)-1,2,3,4,5,6,7,8-octahydroacridine (6).**

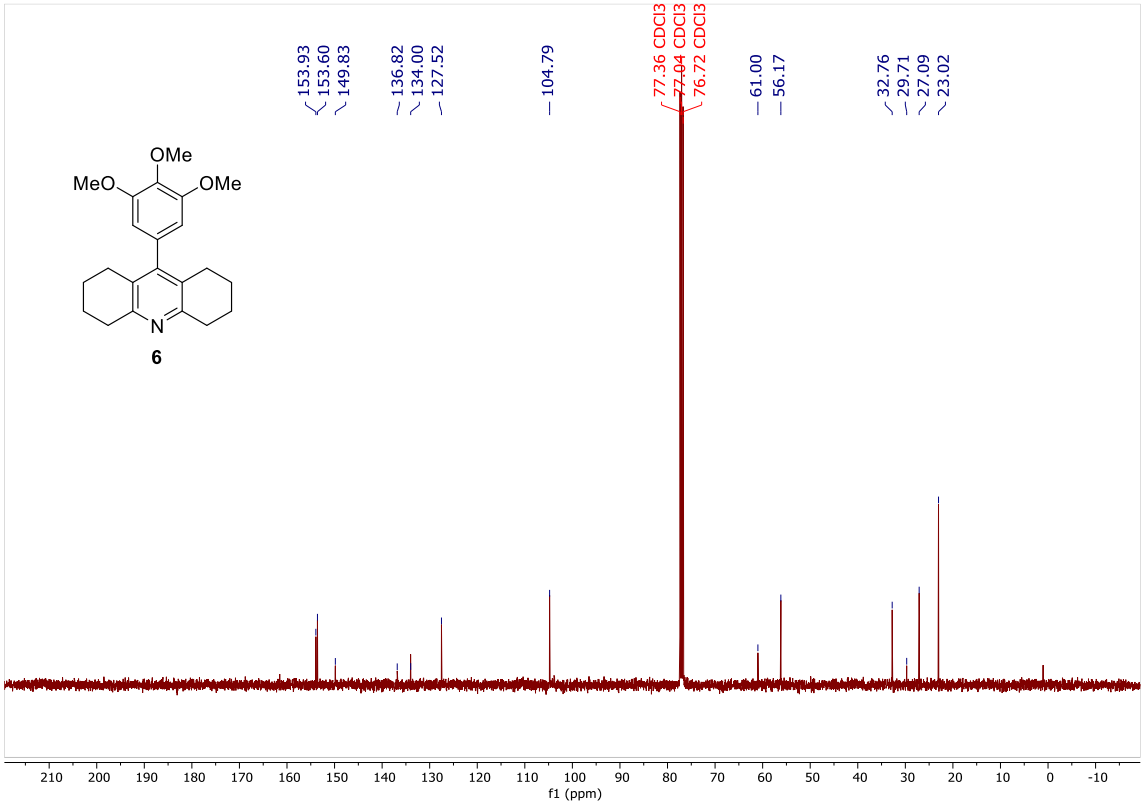

Figure S10: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **9-(3,4,5-trimethoxyphenyl)-1,2,3,4,5,6,7,8-octahydroacridine (6).**

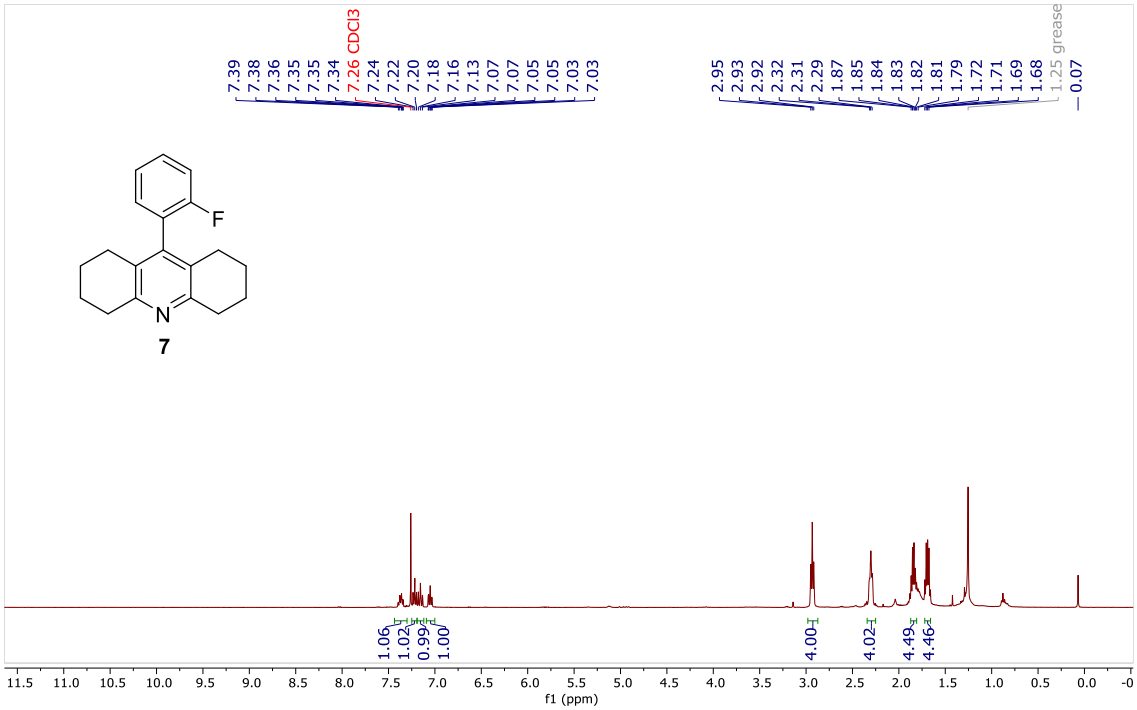

Figure S11: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **9-(2-fluorophenyl)-1,2,3,4,5,6,7,8-octahydroacridine (7).**

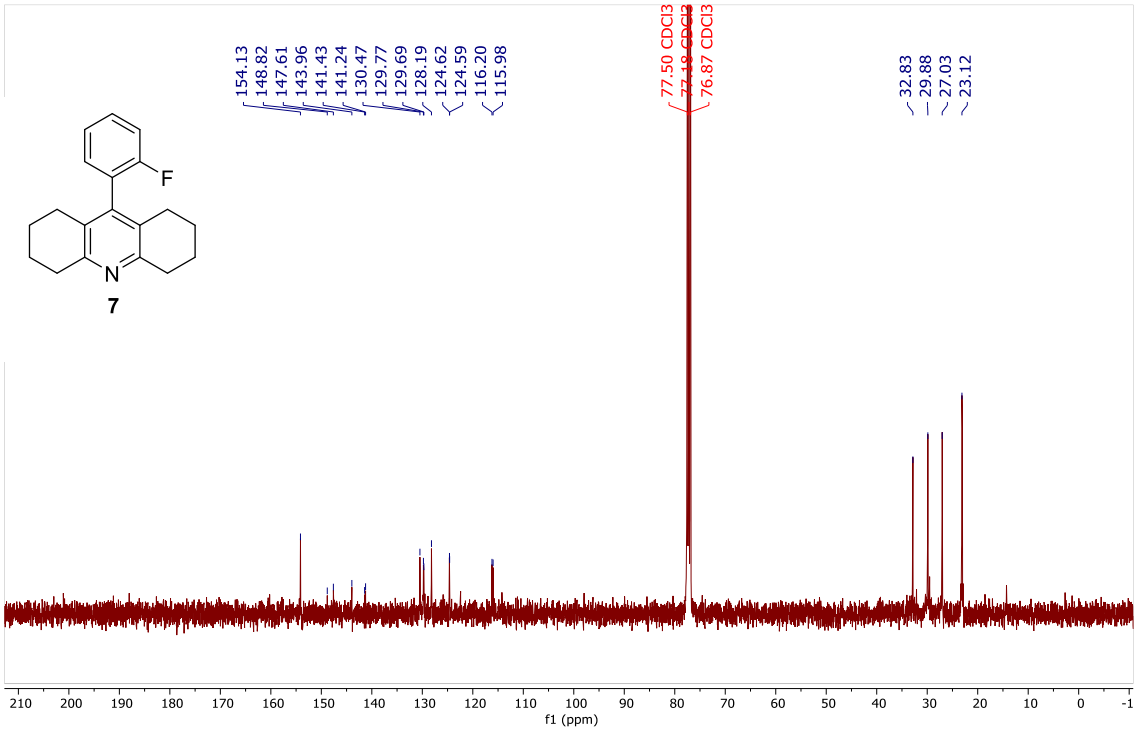

Figure S12: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **9-(2-fluorophenyl)-1,2,3,4,5,6,7,8-octahydroacridine (7).**

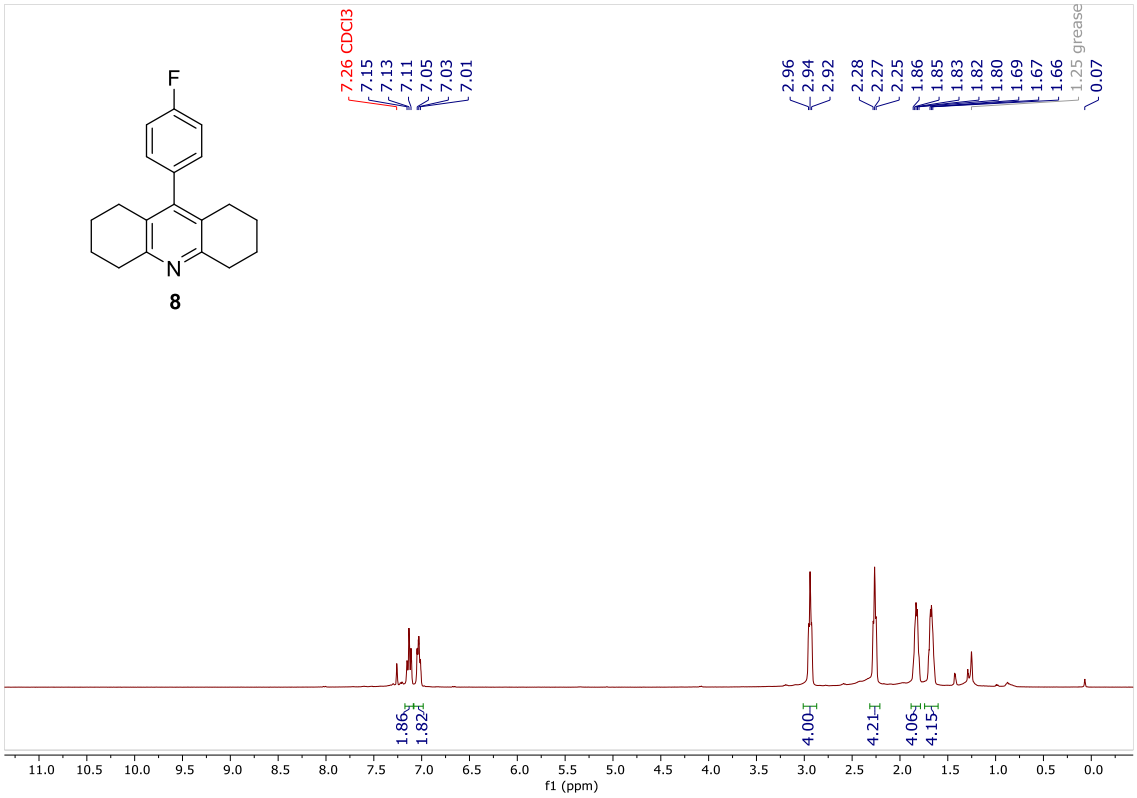

Figure S13: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **9-(4-fluorophenyl)-1,2,3,4,5,6,7,8-octahydroacridine (8).**

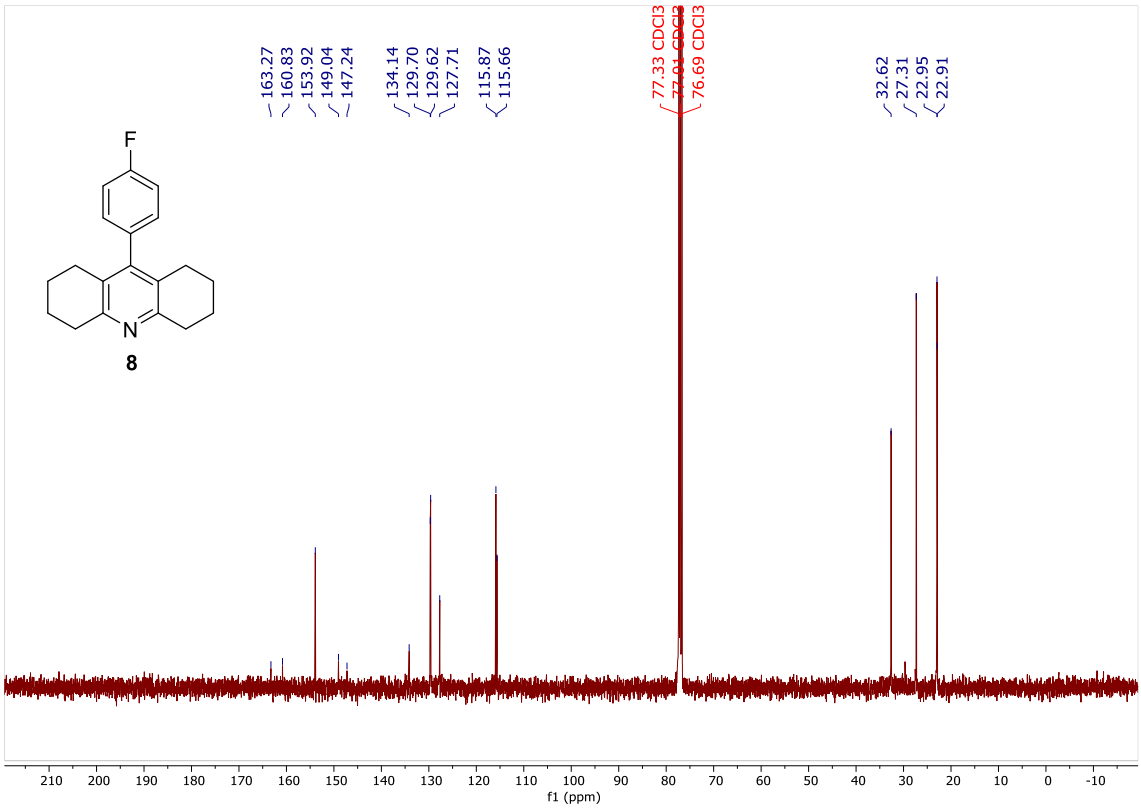

Figure S14: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **9-(4-fluorophenyl)-1,2,3,4,5,6,7,8-octahydroacridine (8).**

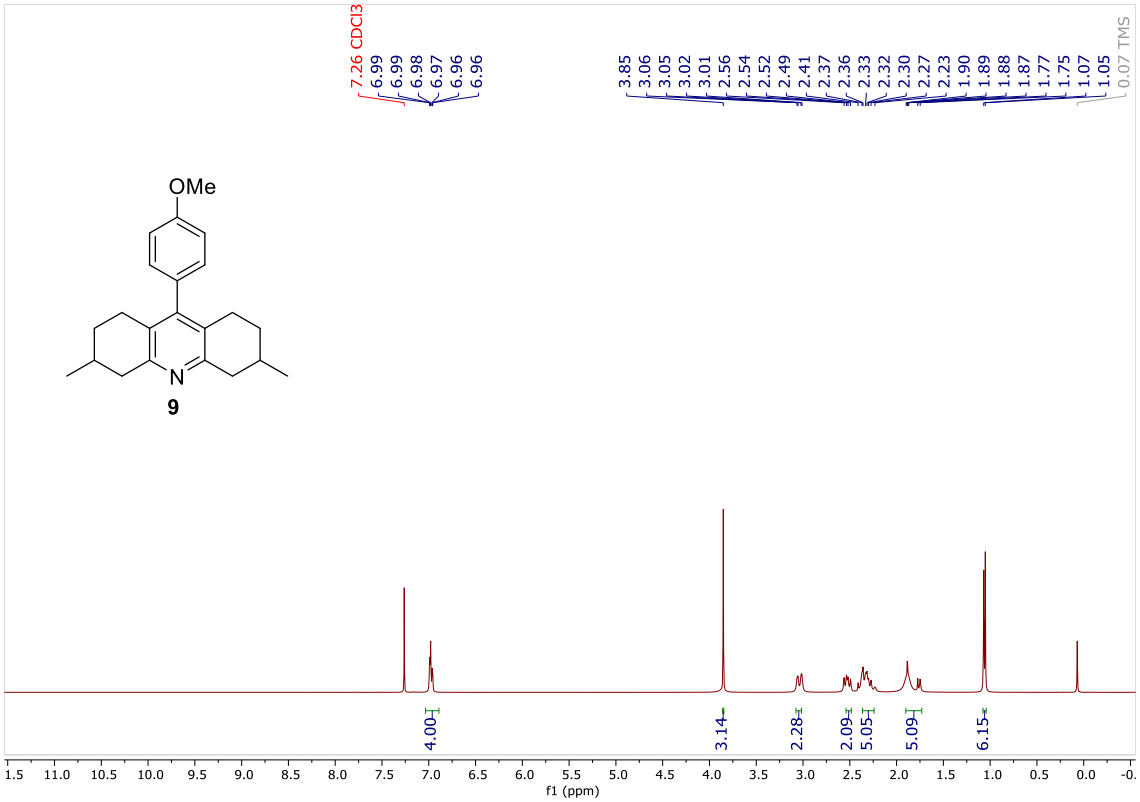

Figure S15: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **9-(4-methoxyphenyl)-3,6-dimethyl-1,2,3,4,5,6,7,8-octahydroacridine (9).**

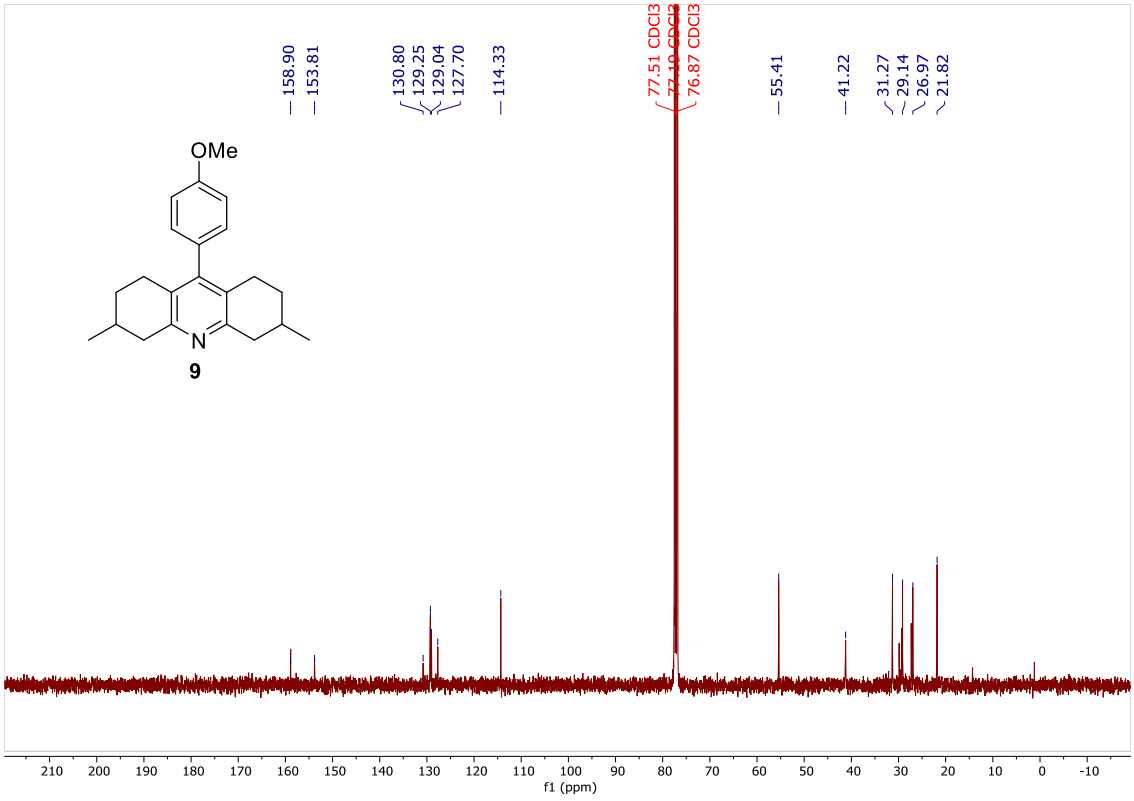

Figure S16: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **9-(4-methoxyphenyl)-3,6-dimethyl-1,2,3,4,5,6,7,8-octahydroacridine (9).**

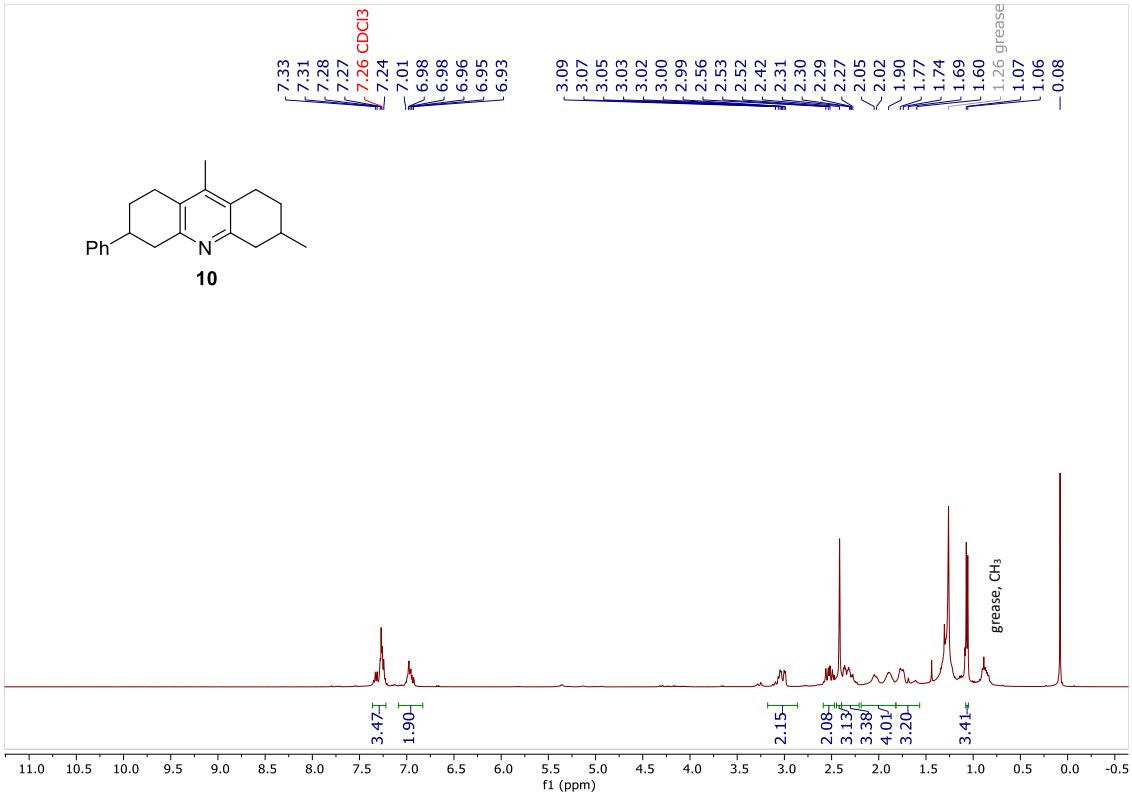

Figure S17: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **3,9-dimethyl-6-phenyl-1,2,3,4,5,6,7,8-octahydroacridine (10).**

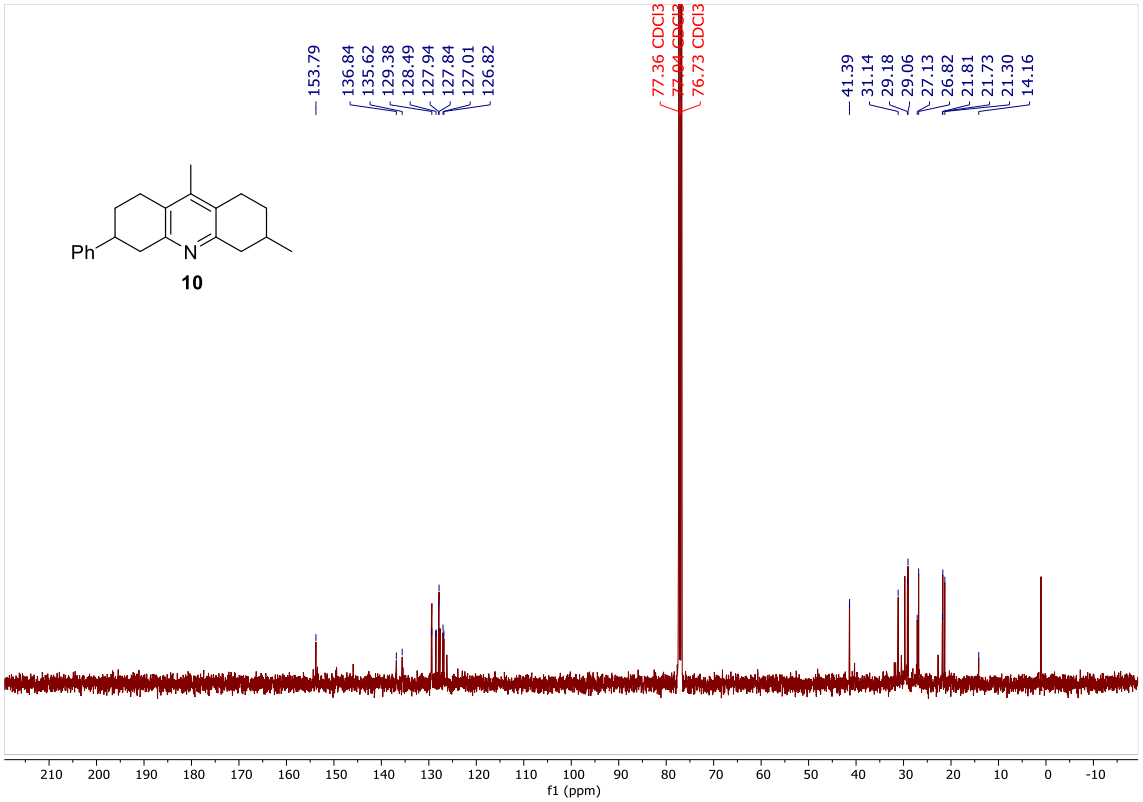

Figure S18: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **3,9-dimethyl-6-phenyl-1,2,3,4,5,6,7,8-octahydroacridine (10).**

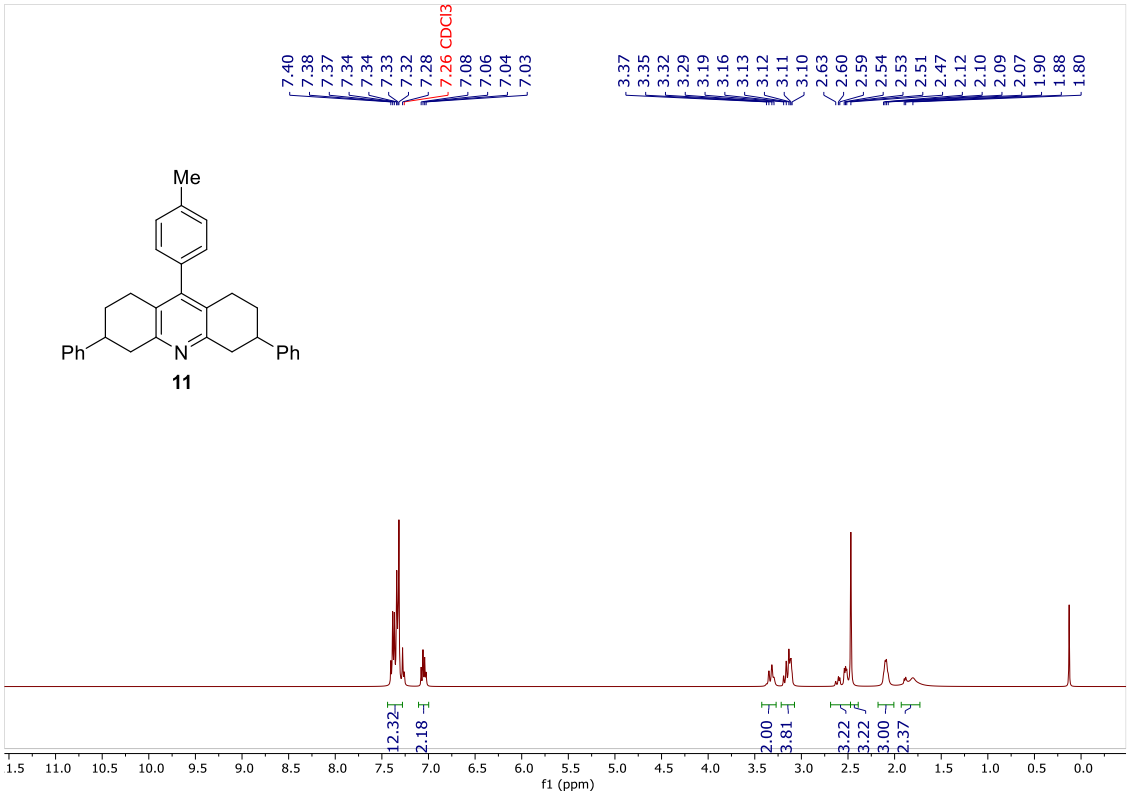

Figure S19: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **3,6-diphenyl-9-(*p*-tolyl)-1,2,3,4,5,6,7,8-octahydroacridine (11).**

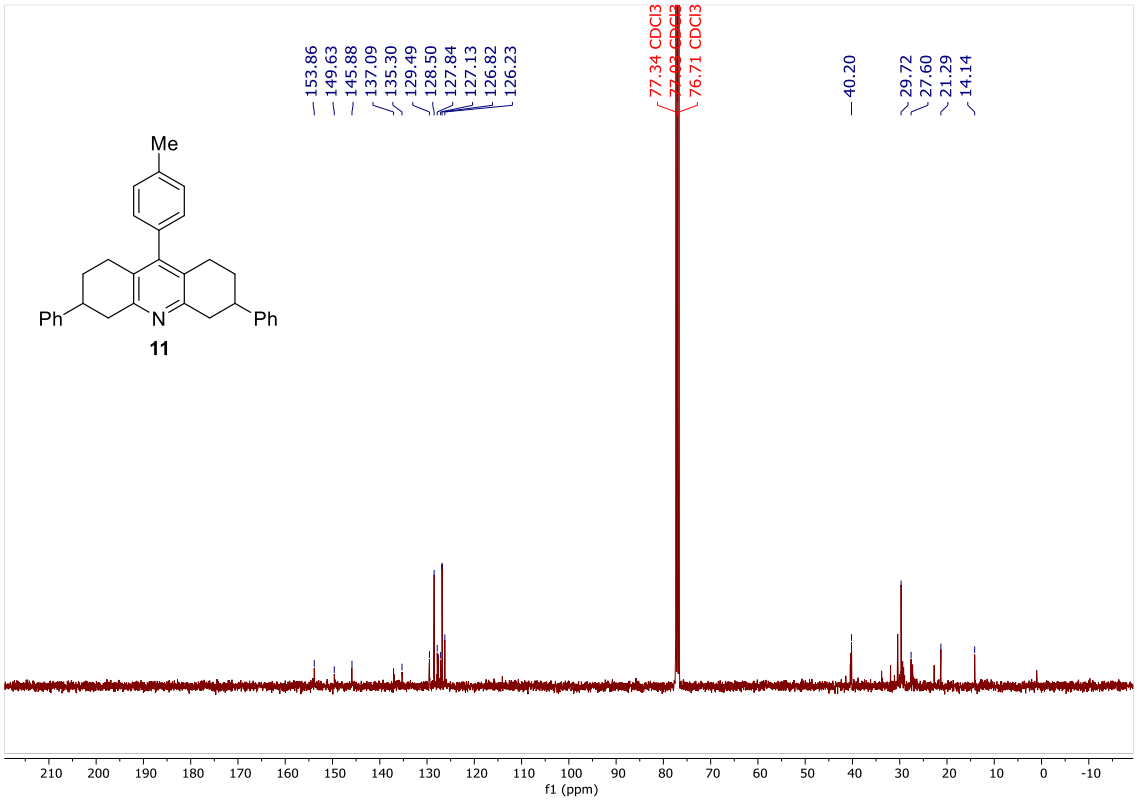

Figure S20: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **9-(4-methoxyphenyl)-3,6-dimethyl-1,2,3,4,5,6,7,8-octahydroacridine (11).**

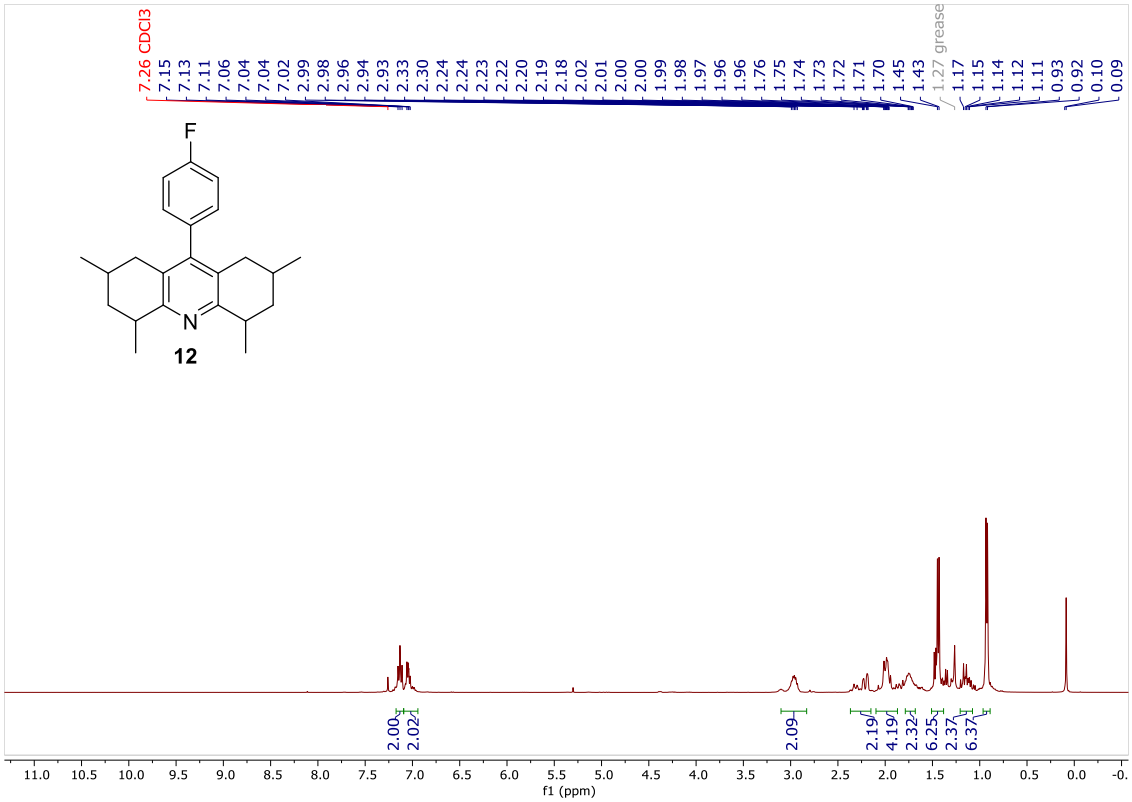

Figure S21: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **9-(4-fluorophenyl)-2,4,5,7-tetramethyl-1,2,3,4,5,6,7,8-octahydroacridine (12).**

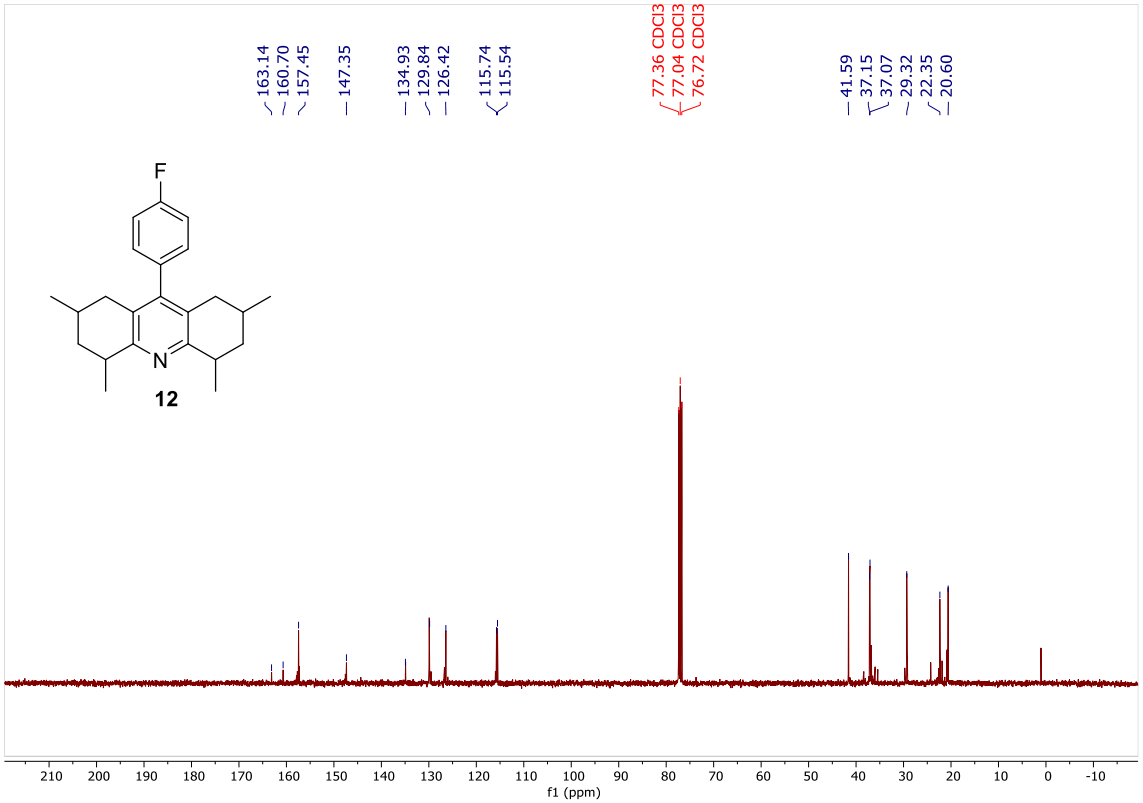

Figure S22: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **9-(4-fluorophenyl)-2,4,5,7-tetramethyl-1,2,3,4,5,6,7,8-octahydroacridine (12).**

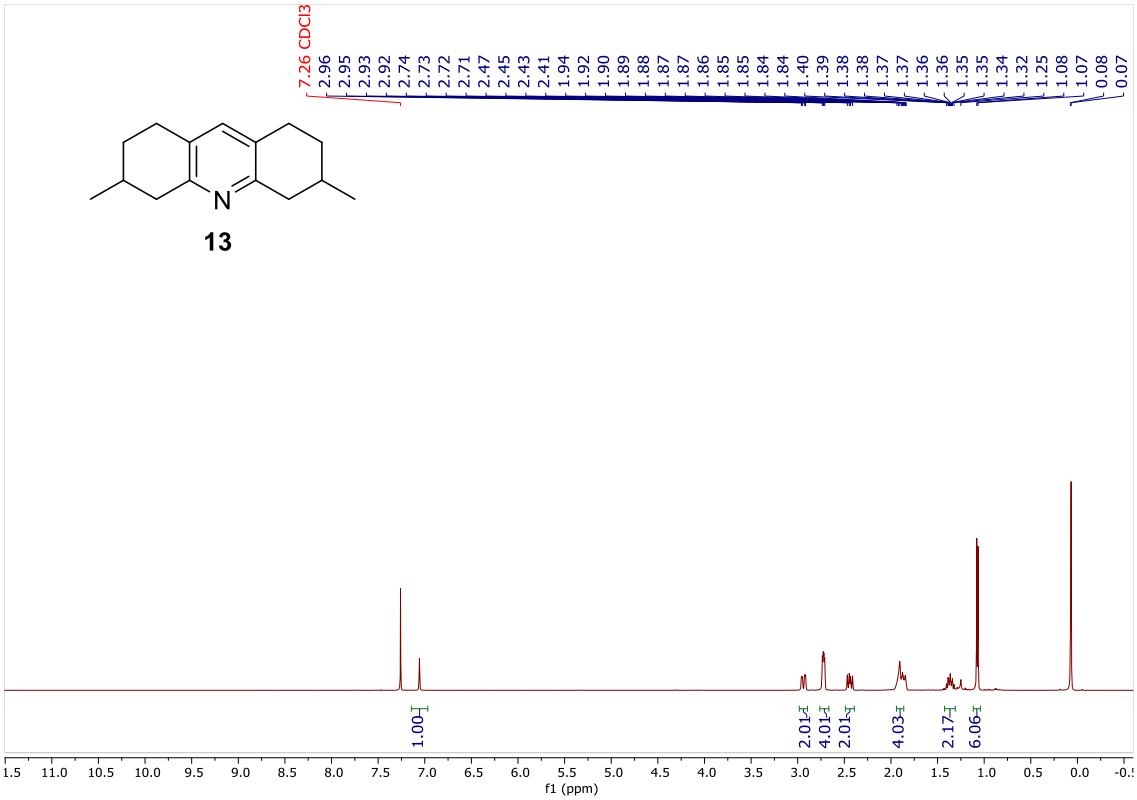

Figure S23: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **3,6-dimethyl-1,2,3,4,5,6,7,8-octahydroacridine (13).**

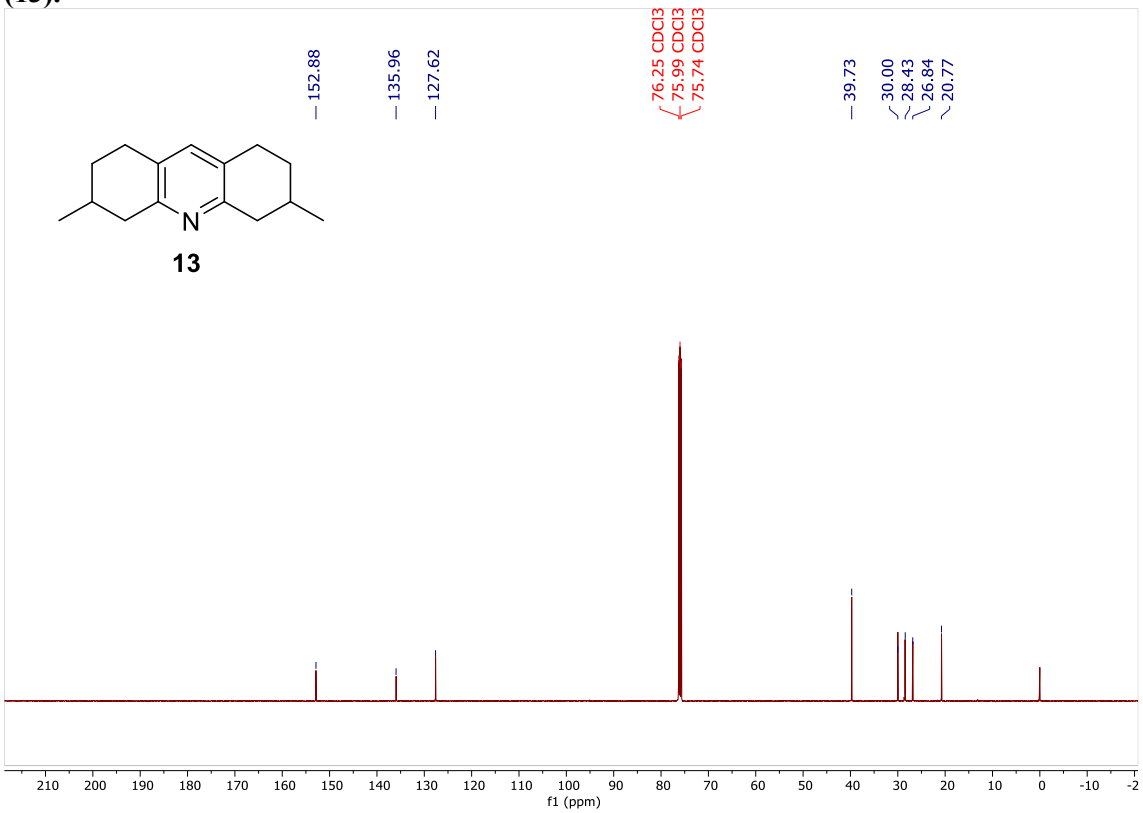

Figure S24: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **3,6-dimethyl-1,2,3,4,5,6,7,8-octahydroacridine (13).**

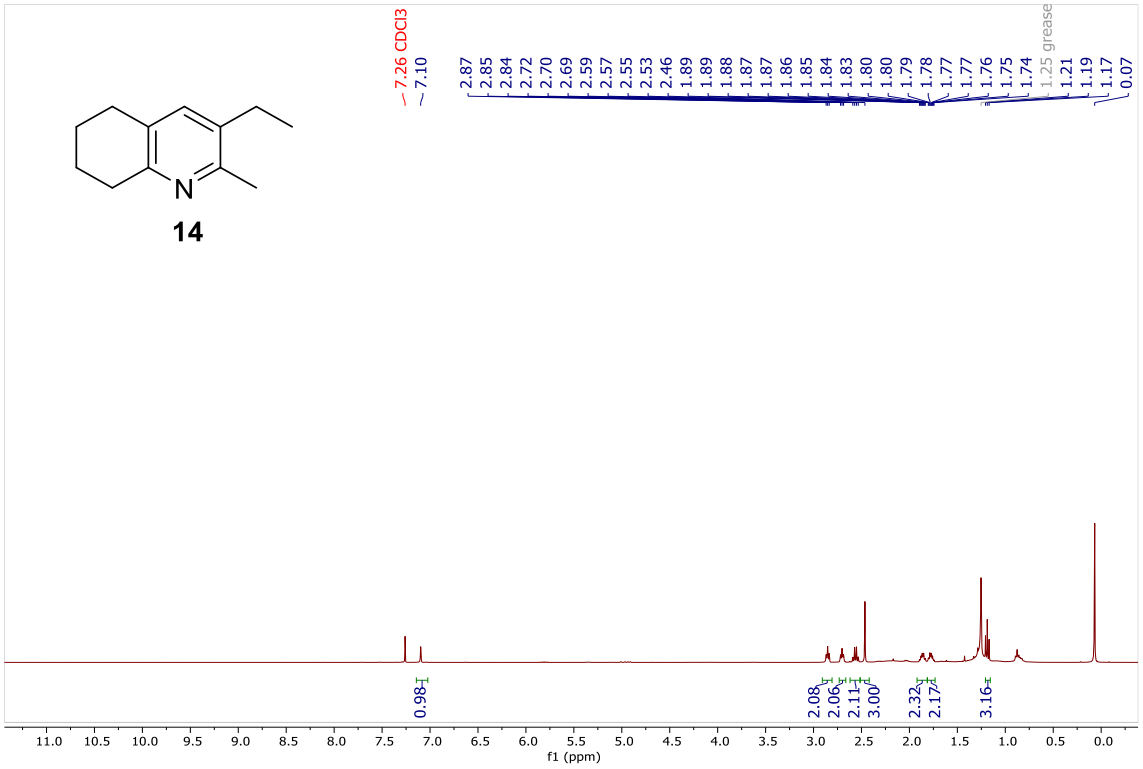

Figure S25: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **3-ethyl-2-methyl-5,6,7,8-tetrahydroquinoline (14).**

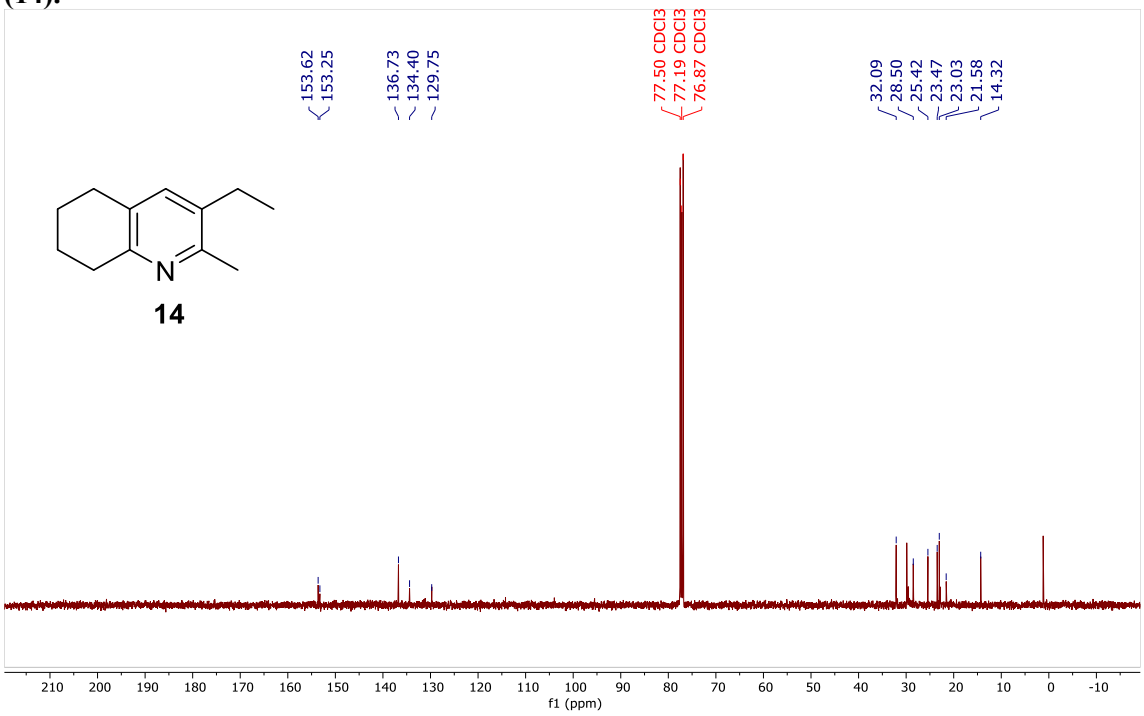

Figure S26: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **3-ethyl-2-methyl-5,6,7,8-tetrahydroquinoline (14).**

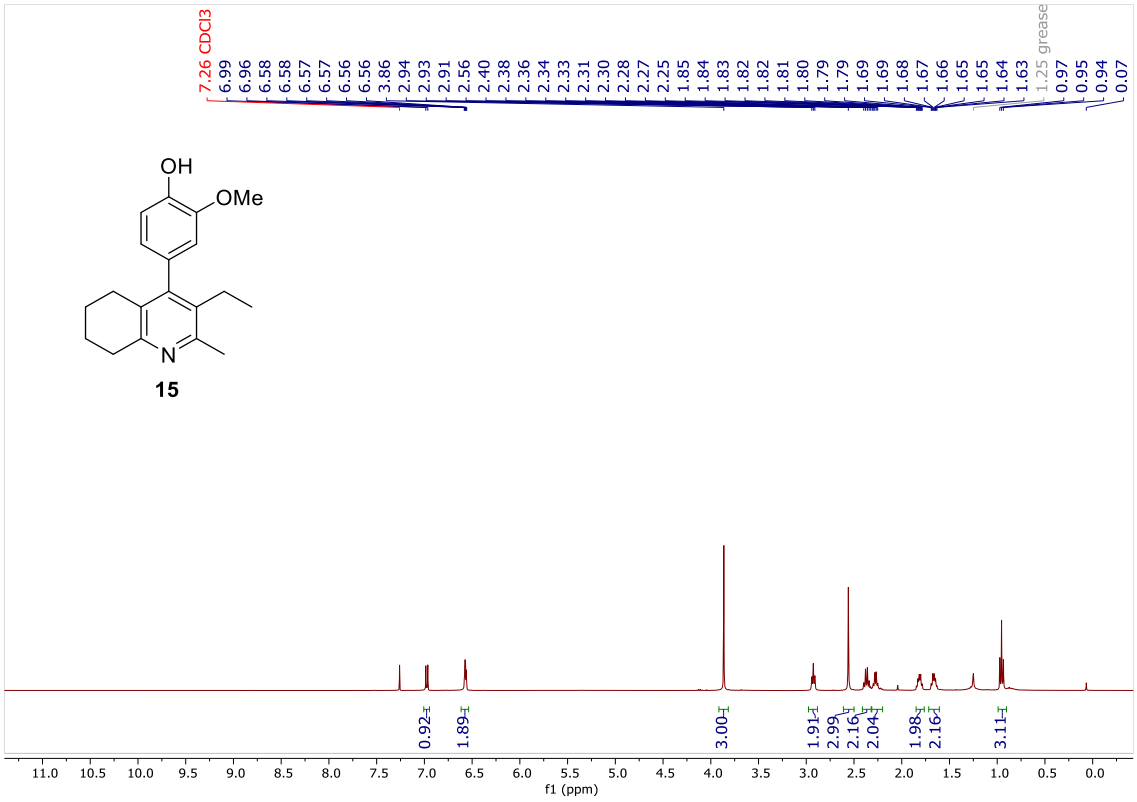

Figure S27: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **4-(3-ethyl-2-methyl-5,6,7,8-tetrahydroquinolin-4-yl)-2-methoxyphenol (15).**

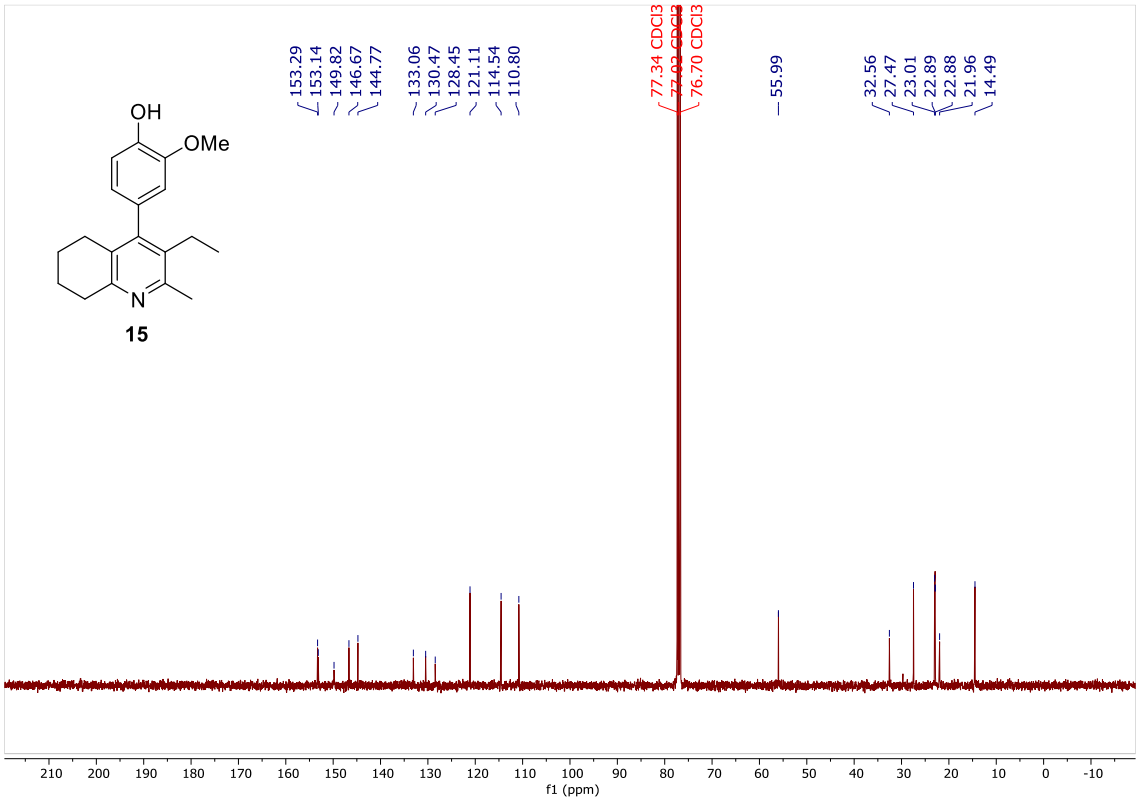

Figure S28: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **4-(3-ethyl-2-methyl-5,6,7,8-tetrahydroquinolin-4-yl)-2-methoxyphenol (15).**

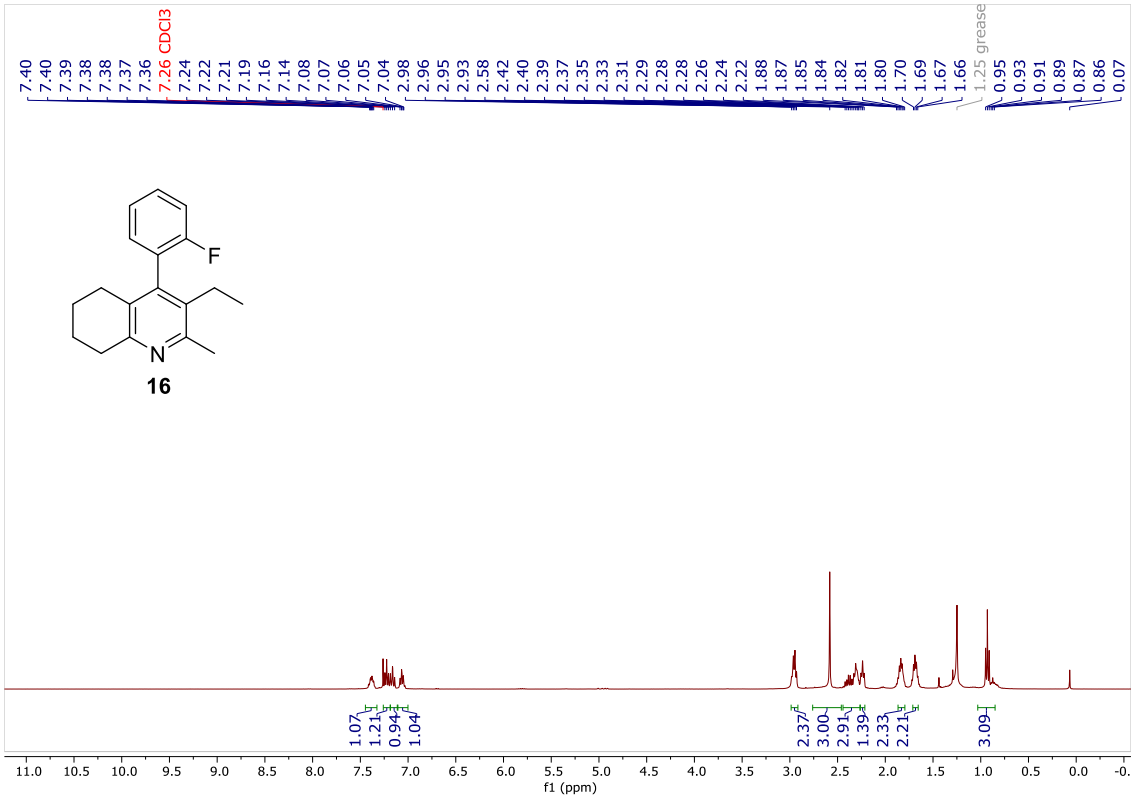

Figure S29: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **3-ethyl-4-(2-fluorophenyl)-2-methyl-5,6,7,8-tetrahydroquinoline (16).**

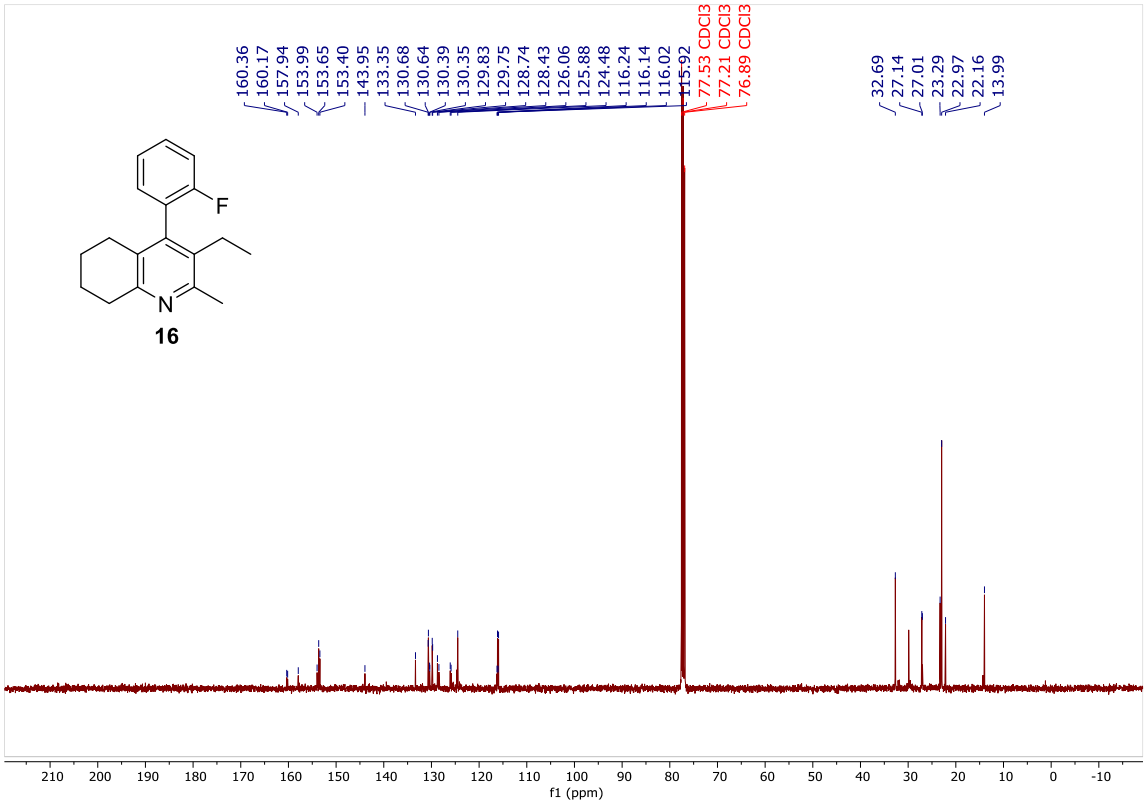

Figure S30: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **3-ethyl-4-(2-fluorophenyl)-2-methyl-5,6,7,8-tetrahydroquinoline (16).**

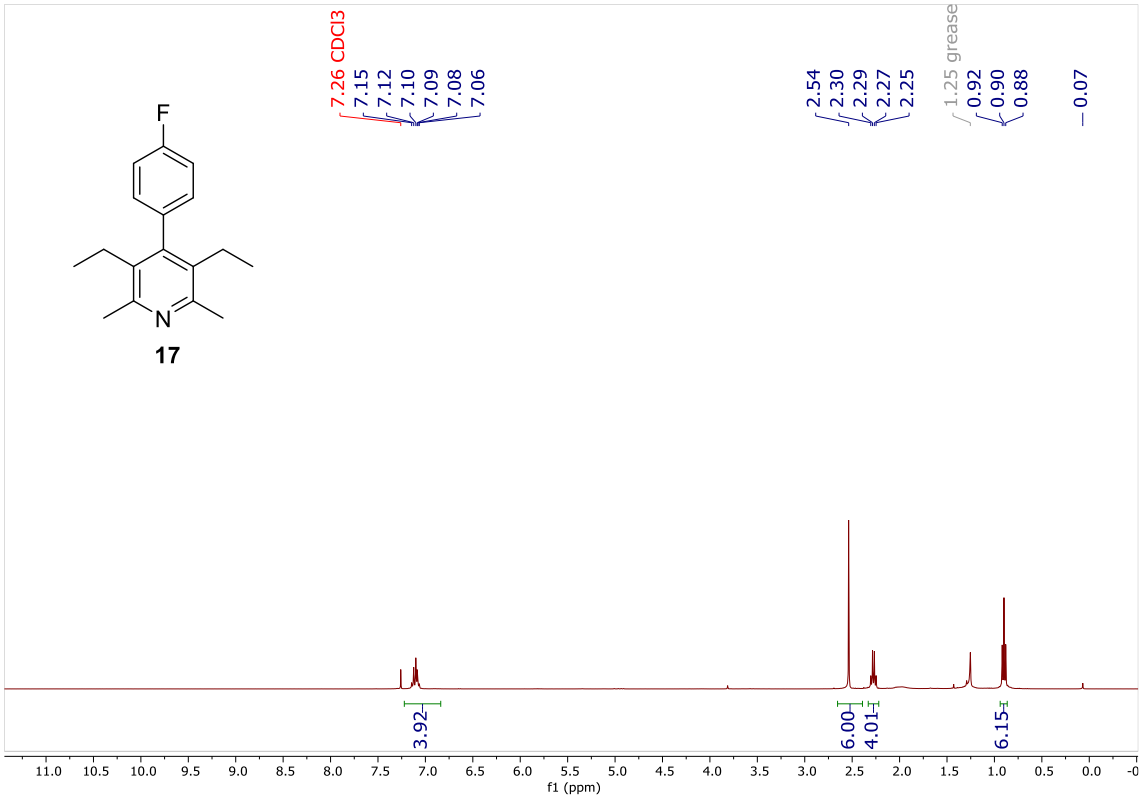

Figure S31: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **3,5-diethyl-4-(4-fluorophenyl)-2,6-dimethylpyridine (17).**

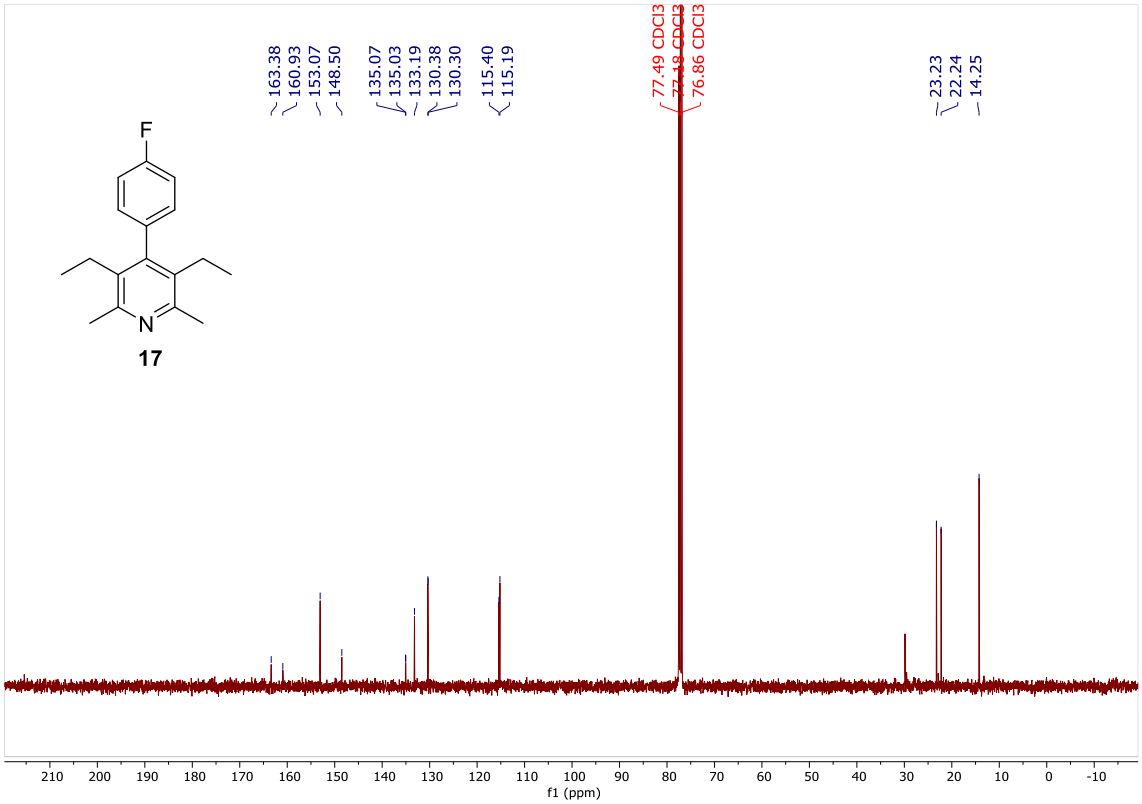

Figure S32: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **3,5-diethyl-4-(4-fluorophenyl)-2,6-dimethylpyridine (17).**

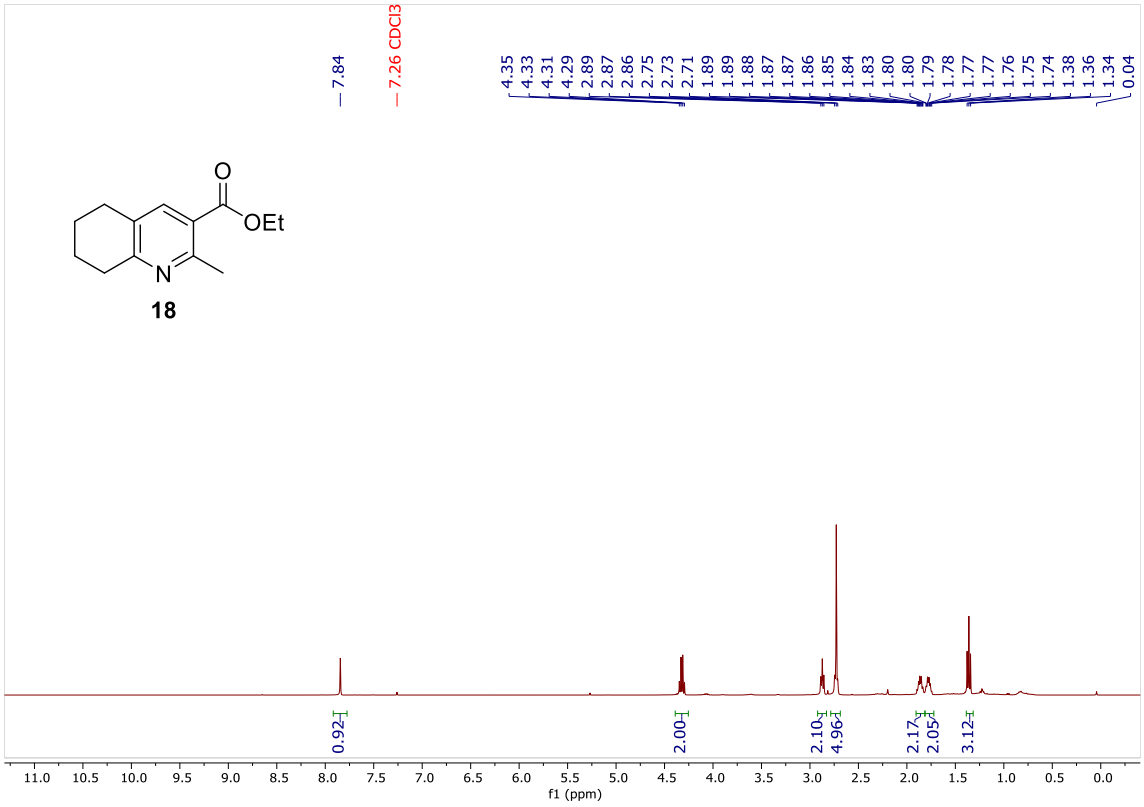

Figure S33: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **ethyl 2-methyl-5,6,7,8-tetrahydroquinoline-3-carboxylate (18).**

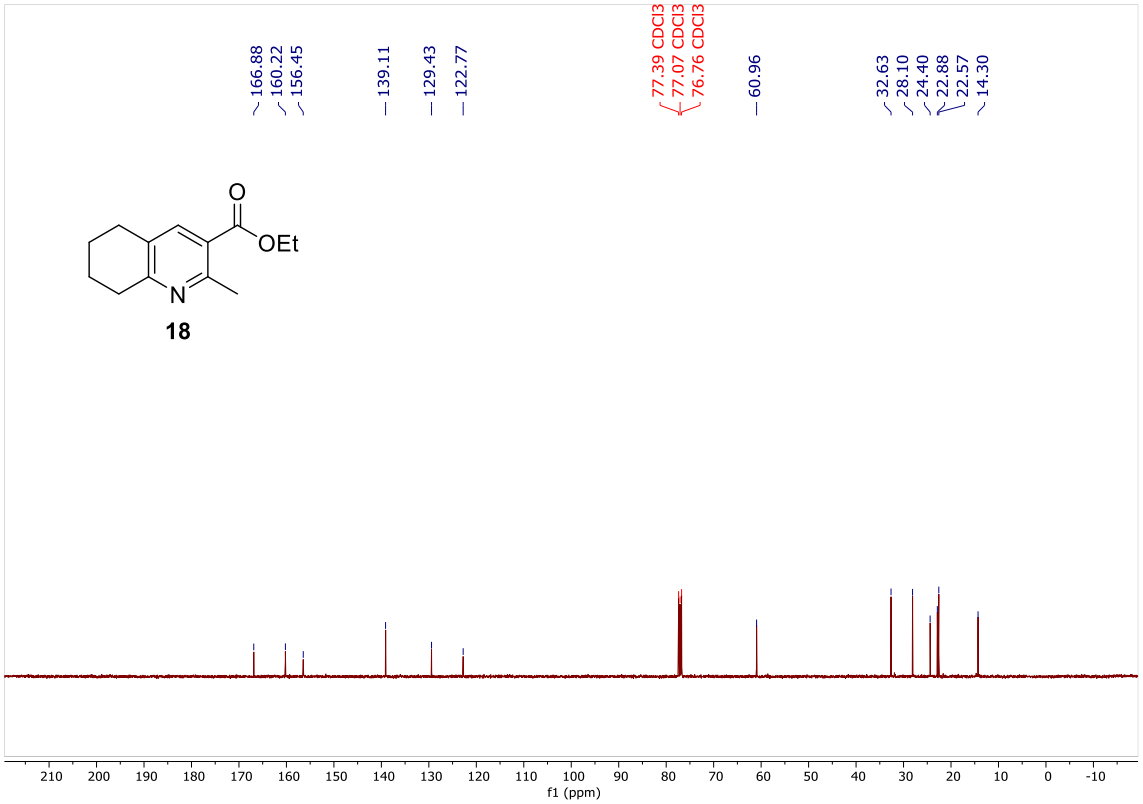

Figure S34: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **ethyl 2-methyl-5,6,7,8-tetrahydroquinoline-3-carboxylate (18).**

^{1}H and ^{13}C NMR spectra of isolated intermediates:

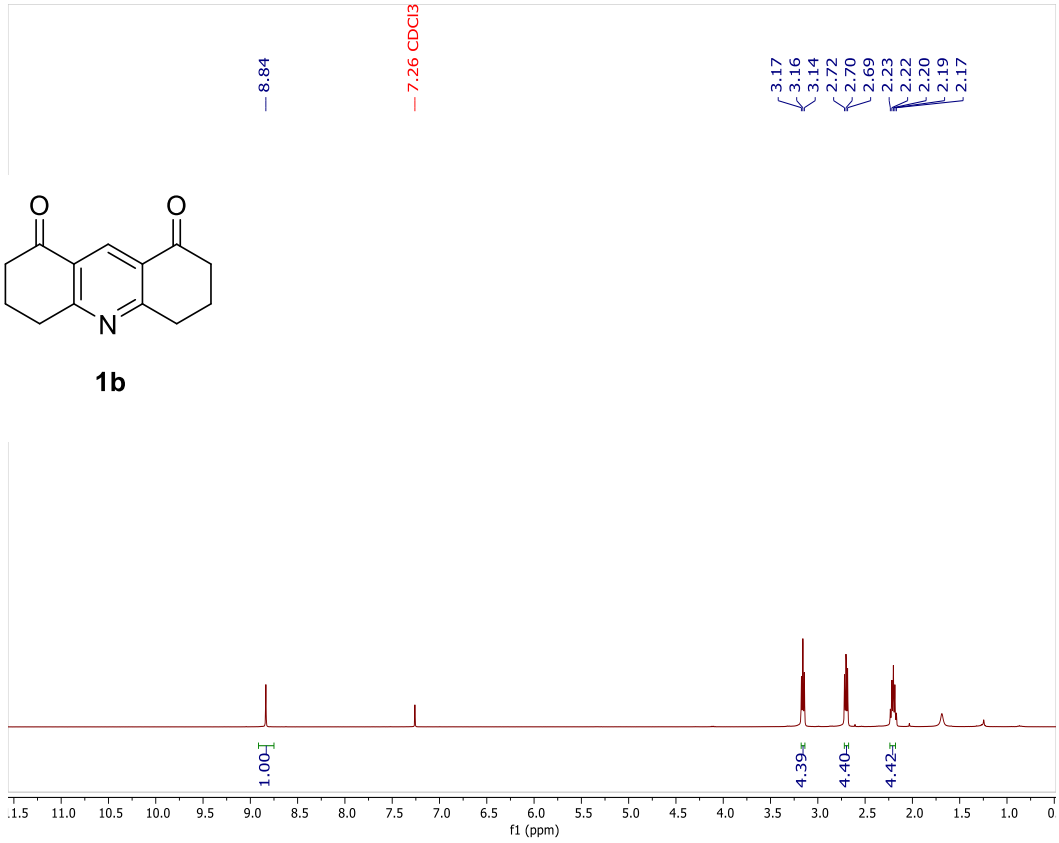

Figure S35: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **3,4,6,7-tetrahydroacridine-1,8(2H,5H)-dione (1b).**

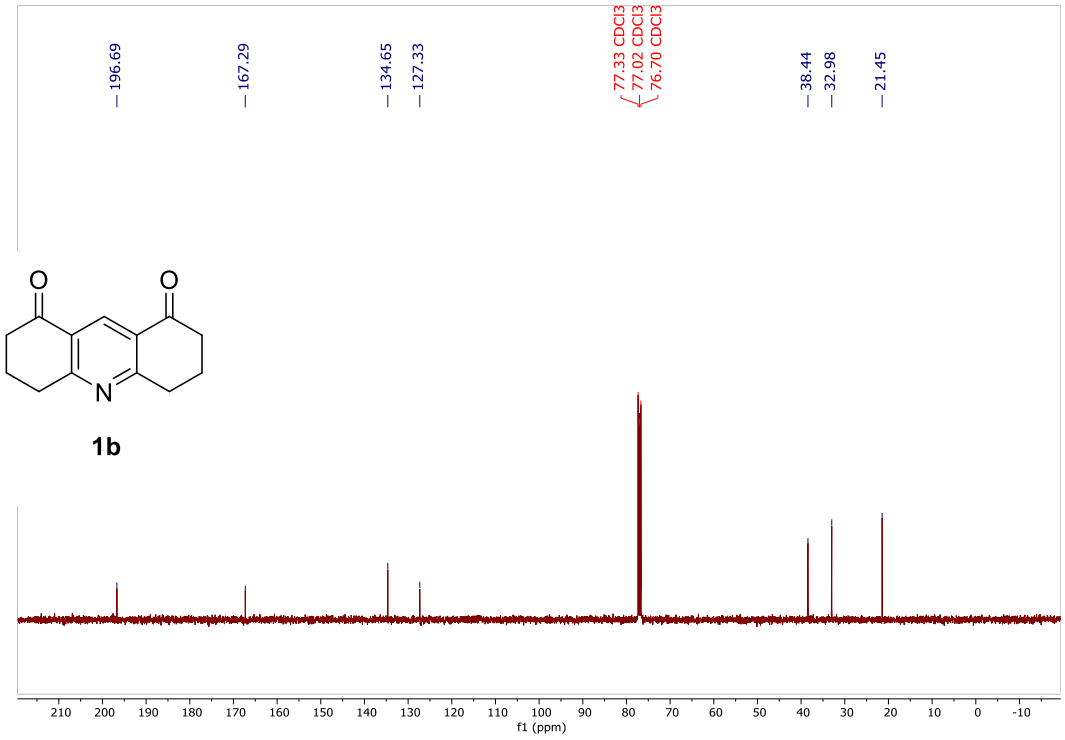

Figure S36: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **3,4,6,7-tetrahydroacridine-1,8(2H,5H)-dione (1b).**

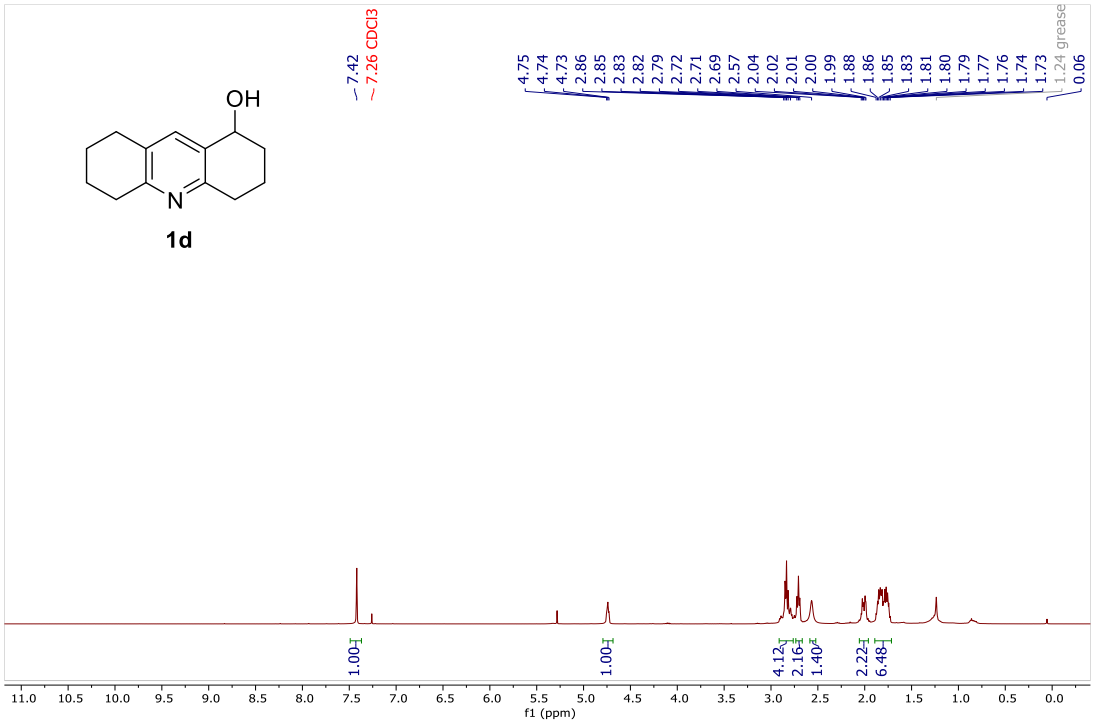

Figure S37: ^{1}H NMR ($CDCl_3$, 400 MHz) spectrum of **1,2,3,4,5,6,7,8-octahydroacridin-1-ol (1d).**

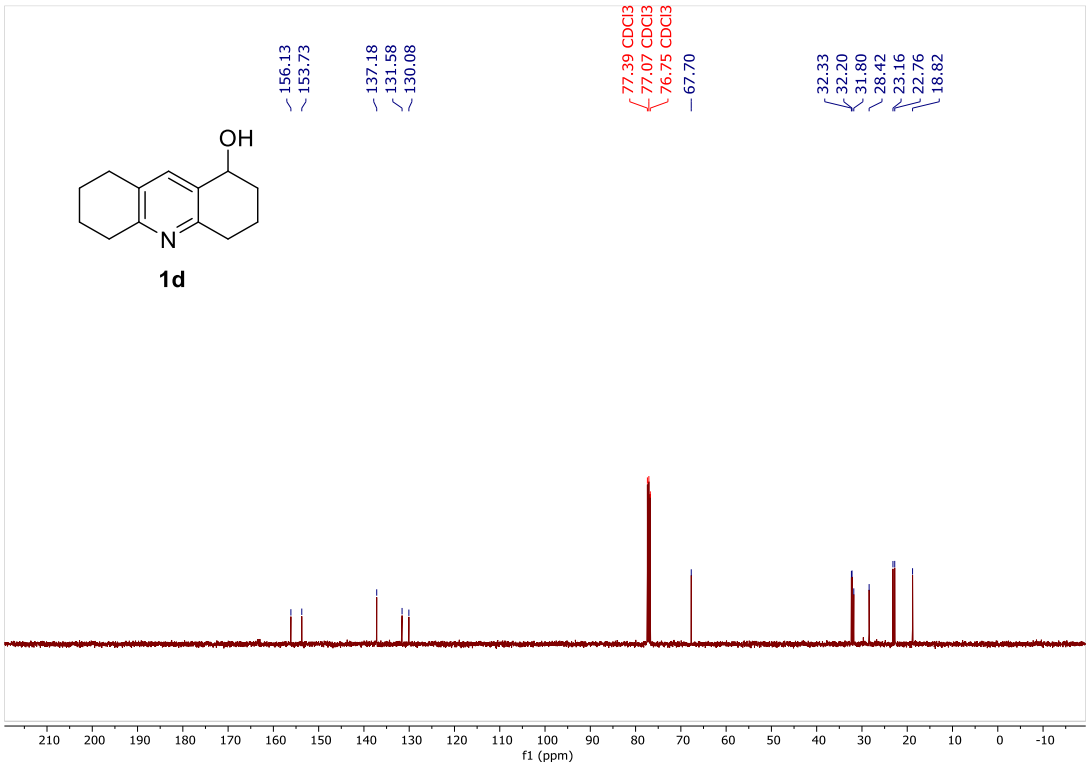

Figure S38: ^{13}C NMR ($CDCl_3$, 101 MHz) spectrum of **1,2,3,4,5,6,7,8-octahydroacridin-1-ol (1d).**