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Supporting Information

Synthesis of Furoquinolines through a One-Pot Multicomponent Cascade Reaction Catalyzed by Platinum Complexes

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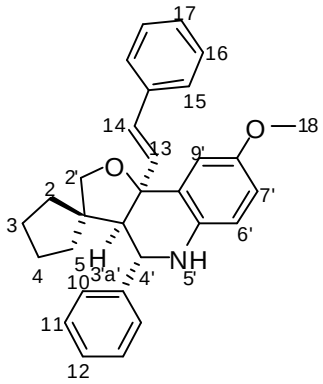
General. ^{1}H NMR spectra were recorded on a Bruker AV-600 (600 MHz), Bruker AMX-400 (400 MHz) or Bruker DPX-300 (300 MHz). Chemical shifts are reported in ppm from tetramethylsilane with the residual solvent resonance as the internal standard ($CHCl_3$: δ 7.26). Data are reported as follows: chemical shift, multiplicity (s: singlet, d: doublet, dd: double doublet, td: triplet of doublets, t: triplet, q: quartet, br: broad, m: multiplet), coupling constants (*J* in Hz), integration and assignment. ^{13}C NMR spectra were recorded on a Bruker AV-600 (150 MHz), Bruker AMX-400 (100 MHz) or Bruker DPX-300 (75 MHz) with complete proton decoupling. Chemical shifts are reported in ppm from tetramethylsilane with the solvent resonance as internal standard ($CDCl_3$: d= 76.95 ppm). Bidimensional NMR experiments (COSY, HSQC, HMBC and NOESY) were recorded on a Bruker AMX-400 (400 MHz). High-resolution mass spectrometry was carried out on a Finnigan-Mat 95 spectrometer. All reactions were conducted in dried glassware under an inert atmosphere of argon. Solvents were dried and deoxygenated with a PureSolv® column system before use. $PtCl_2$(COD) and $AgSbF_6$ were obtained from commercial sources and stored under an inert atmosphere of argon.

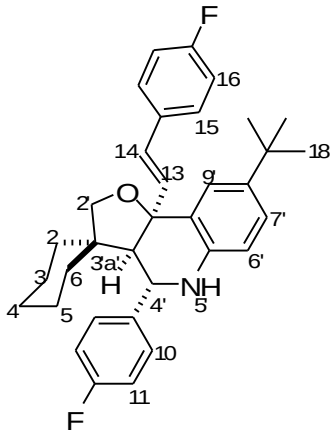
Synthesis of furo[3,2-*c*]quinolines 4: The corresponding imine **2** (2.0 mmol) was placed in a carrousel tube under an atmosphere of argon and dissolved in acetonitrile (1 ml). $PtCl_2$(COD) (9.3 mg; 5 mol%) and $AgSbF_6$ (17.1 mg; 10 mol%) were added and stirred for 10 minutes. Alkynol **1** (0.5 mmol) was dissolved separately in acetonitrile (1 ml) under an inert atmosphere of argon. This solution was added to the solution of imine **2** and the catalyst using a syringe-pump at a rate of 150 µl/h. After the addition, the slurry was stirred at room temperature for additional 17 hours. The reaction was filtered through a short plug of celite. Solvent was removed in vacuo and the crude was purified by flash column chromatography on silica gel to give pure compounds **4**.

(3'a*R,4'*S**,9'b*R**)-8'-methoxy-4'-phenyl-9'b-[(*E*)-4-styryl]-3a',4',5',9'b-tetrahydro-2'*H*-spiro[cyclopentane-1,3'-furo[3,2-*c*]quinoline] (4a).**



White solid. R_f 0.45 (hexane : diethyl ether, 3:1). ^{1}H NMR (401 MHz, $CDCl_3$) d = 7.36 - 7.03 (m, 10H; $H_{10\text{-}12}$ and $H_{15\text{-}17}$), 6.88 (d, *J*= 2.2 Hz, 1H; $H_{9'}$), 6.64 (broad d, *J*= 8.1 Hz, 1H; $H_{7'}$), 6.53 (broad s, 1H; $H_{6'}$), 6.42 (d, *J*= 15.8 Hz, 1H; H_{14}), 5.99 (d, *J*= 15.8 Hz, 1H; H_{13}), 4.17 (broad s, 1H; $H_{4'}$), 3.66 (s, 3H; H_{18}), 3.61 (d, *J*= 8.4 Hz, 1H; $H_{2'a}$), 3.59 (d, *J*= 8.4 Hz, 1H; $H_{2'b}$), 2.71 (d, *J*= 5.6 Hz, 1H; $H_{3'a'}$), 1.73 – 1.10 (m, 8H; $H_{2\text{-}5}$). ^{13}C NMR (100 MHz, $CDCl_3$) d = 137.2, 135.7, 128.3, 127.1, 126.7, 126.5, 125.8, 115.2, 114.5, 112.3, 82.5, 77.7, 59.1, 57.1, 55.7, 54.3, 38.0, 32.2, 24.3, 23.0. HRMS calcd. for $C_{30}H_{31}NO_2$ 437.2353, found 437.2353.

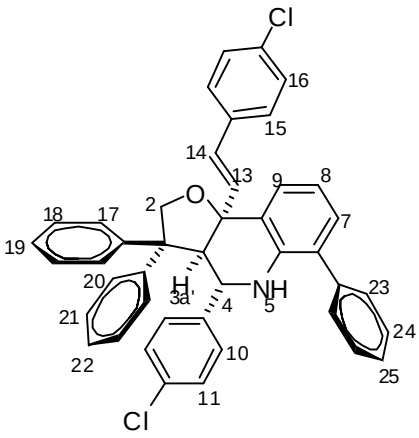
(3'a*R,4'*S**,9'b*R**)-8'-*tert*-butyl-4'-(4-fluorophenyl)-9'b-[(*E*)-4-fluorostyryl]-3a',4',5',9'b-tetrahydro-2'*H*-spiro[cyclohexane-1,3'-furo[3,2-*c*]quinoline] (4b).**



White solid. R_f 0.59 (hexane : ethyl acetate, 5:1). ^{1}H NMR (400 MHz, $CDCl_3$) d = 7.40 - 7.30 (m, 3H; $H_{9'}$ and H_{15}), 7.16 (dd, *J*= 8.3, 2.3 Hz, 1H; $H_{7'}$), 7.08-7.02 (m, 2H; H_{10}), 6.98 (t, *J*= 8.6 Hz, 2H; H_{11}), 6.91 (t, *J*= 8.7 Hz, 2H; H_{16}), 6.60 (d, *J*= 8.3 Hz, 1H; $H_{6'}$), 6.31 (d, *J*= 15.7 Hz, 1H; H_{14}), 5.85 (d, *J*= 15.7 Hz, 1H; H_{13}), 4.45 (d, *J*= 3.5 Hz, 1H; $H_{4'}$), 3.83 (d, *J*= 8.8 Hz, 1H; $H_{2'a}$), 3.79 (d, *J*= 8.8 Hz, 1H; $H_{2'b}$), 2.34 (d, *J*= 3.5 Hz, 1H; $H_{3'a'}$), 1.72 – 1.53 (m, 6H; $H_{2\text{-}4}$), 1.48 – 1.34 (m, 4H; H_5 and H_6), 1.30 (s, 9H; H_{18}). ^{13}C NMR (101 MHz, $CDCl_3$) d = 162.0 (d, *J*= 246.1 Hz), 161.8 (d, *J*= 246.5 Hz), 141.4,

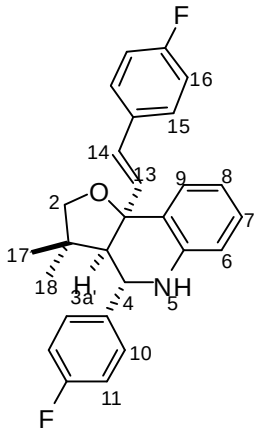
140.6, 135.8, 133.4 (d, *J*= 2.4 Hz), 128.7 (d, *J*= 5.8 Hz), 127.9 (d, *J*= 7.0 Hz), 125.3, 124.4, 124.0, 115.2 (d, *J*= 21.6 Hz), 113.2, 81.3, 74.3, 62.6, 54.3, 46.7, 37.6, 34.2, 31.6, 25.9, 24.5, 23.5. HRMS calcd. for $C_{34}H_{37}NOF_2$ 513.2838, found 513.2838.

(3a*R,4*S**,9b*R**)-4-(4-chlorophenyl)-9b-[(*E*)-4-chlorostyryl]-3,3,6-triphenyl-2,3,3a,4,5,9b-hexahydrofuro[3,2-*c*]quinoline (4c).**



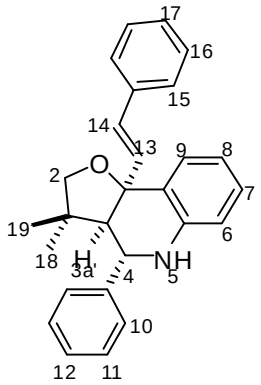
White solid. R_f 0.67 (hexane : diethyl ether, 5:1). ^{1}H NMR (401 MHz, $CDCl_3$) d = 7.40 – 6.98 (m, 24H; $H_{9\text{-}11}$ and $H_{15\text{-}25}$), 6.96 (d, *J*= 7.3Hz, 1H; H_7), 6.82 (t, *J*= 7.3Hz, 1H; H_8), 6.48 (d, *J*= 16.3Hz, 1H; H_{14}), 5.91 (d, *J*= 16.3Hz, 1H; H_{13}), 4.86 (d, *J*= 9.4Hz, 1H; H_{2a}), 4.55 (d, *J*= 3.3Hz, 1H; H_4), 4.20 (d, *J*= 9.4Hz, 1H; H_{2b}), 3.76 (d, *J*= 3.3Hz, 1H; $H_{3a'}$). ^{13}C NMR (100 MHz, $CDCl_3$) d = 145.8, 144.4, 142.3, 139.5, 138.7, 136.0, 135.4, 133.1, 132.8, 130.9, 129.5, 129.4, 129.2, 128.7, 128.6, 128.5, 128.3, 128.1, 127.8, 127.6, 127.4, 127.2, 127.1, 127.0, 126.7, 126.6, 126.5, 126.3, 124.5, 124.4, 117.7, 82.3, 79.6, 77.3, 77.0, 76.7, 59.1, 56.3, 54.1. HRMS calcd. for $C_{43}H_{33}NOCl_2$ 649.1937, found 649.1941.

(3a*R,4*S**,9b*R**)-4-(4-fluorophenyl)-9b-[(*E*)-4-fluorostyryl]-3,3-dimethyl-2,3,3a,4,5,9b-hexahydrofuro[3,2-*c*]quinoline (4d).**



White solid. R_f 0.48 (hexane : ethyl acetate, 5:1). ^{1}H NMR (300 MHz, $CDCl_3$) d = 7.36 (d, *J*= 7.8 Hz, 1H; H_9), 7.34 (d, *J*= 8.7 Hz, 2H; H_{15}), 7.16-7.07 (m, 3H; H_7 and H_{10}), 7.02 (t, *J*= 8.7 Hz, 2H; H_{16}), 6.92 (t, *J*= 8.7 Hz, 2H; H_{11}), 6.81 (t, *J*= 7.8 Hz, 1H; H_8), 6.65 (d, *J*= 7.8 Hz, 1H; H_6), 6.42 (d, *J*= 15.8 Hz, 1H; H_{14}), 5.92 (d, *J*= 15.8 Hz, 1H; H_{13}), 4.32 (d, *J*= 5.9 Hz, 1H; H_4), 3.68 (d, *J*= 8.7 Hz, 1H; H_{2a}), 3.65 (d, *J*= 8.7 Hz, 1H; H_{2b}), 2.49 (d, *J*= 5.9 Hz, 1H; $H_{3a'}$), 1.08 (s, 3H; H_{17}), 1.06 (s, 3H; H_{18}). ^{13}C NMR (75 MHz, $CDCl_3$) d = 164.4 (d, *J*= 246.1 Hz), 164.3 (d, *J*= 246.0 Hz), 146.2, 142.4 (d, *J*= 2.4 Hz), 137.8, 137.8, 135.5 (d, *J*=3.1 Hz), 131.1 (d, *J*= 7.8 Hz), 130.6, 130.3, 130.2 (d, *J*= 7.6 Hz), 128.4, 126.5, 121.6, 117.9 (d, *J*= 13.8 Hz), 117.6 (d, *J*= 13.8 Hz), 116.4, 84.3, 81.9, 64.2, 57.7, 45.2, 29.5, 25.4. HRMS calcd. for $C_{27}H_{25}NOF_2$ 417.1904, found 417.1898.

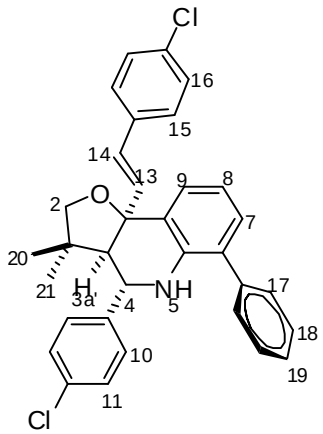
(3a*R,4*S**,9b*R**)-3,3-dimethyl-4-phenyl-9b-[(*E*)-styryl]-2,3,3a,4,5,9b-hexahydrofuro[3,2-*c*]quinoline (4e).**



White solid. R_f 0.40 (hexane : diethyl ether, 5:1). ^{1}H NMR (300 MHz, CDCl3) d = 7.46 - 7.17 (m, 11H; $H_{9\text{-}12}$ and $H_{15\text{-}17}$), 7.13 (t, *J*= 7.6 Hz, 1H; H_7) 6.83 (t, *J*= 7.6 Hz, 1H; H_8), 6.68 (d, *J*= 7.6 Hz, 1H; H_6), 6.55 (d, *J*= 15.8 Hz, 1H; H_{14}), 6.04 (d, *J*= 15.8 Hz, 1H; H_{13}), 4.37 (d, *J*= 5.7 Hz, 1H; H_4), 3.72

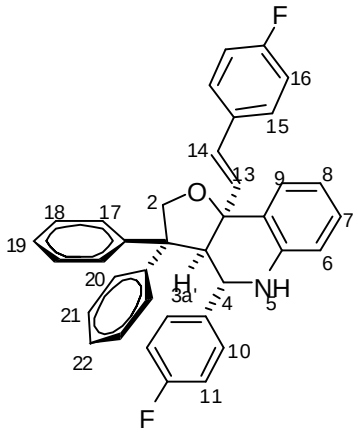
(apparent s, 2H; H_2), 2.61 (d, *J*= 5.7 Hz, 1H; $H_{3a'}$), 1.15 (s, 3H; H_{18}), 1.10 (s, 3H; H_{19}). ^{13}C NMR (75 MHz, $CDCl_3$) d = 144.3, 143.9, 137.1, 135.8, 128.5, 128.2, 127.8, 127.3, 127.1, 127.0, 126.9, 126.4, 126.0, 124.6, 118.9, 113.9, 81.9, 79.5, 61.4, 55.8, 42.8, 26.9, 22.9. HRMS calcd. for $C_{27}H_{27}NO$ 381.2087, found 381.2088.

(3a*R,4*S**,9b*R**)-4-(4-chlorophenyl)-9b-[(*E*)-4-chlorostyryl]-3,3-dimethyl-6-phenyl-2,3,3a,4,5,9b-hexahydrofuro[3,2-*c*]quinoline (4f).**



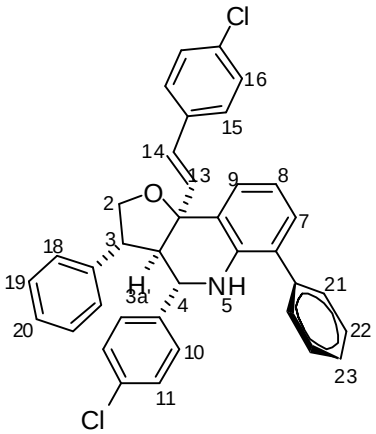
White solid. R_f 0.40 (hexane : ethyl acetate, 5:1). ^{1}H NMR (300 MHz, $CDCl_3$) d = 7.43 (apparent d, *J*= 4.3 Hz, 4H; H_{10} and H_{15}), 7.34 (m, 3H; H_9 and H_{18}), 7.23 (m, 5H; H_7, H_{11} and H_{16}), 7.12 – 7.03 (m, 3H; H_{17} and H_{19}), 6.86 (t, *J*= 7.6 Hz, 1H; H_8), 6.45 (d, *J*= 15.8 Hz, 1H; H_{14}), 5.96 (d, *J*= 15.8 Hz, 1H; H_{13}), 4.27 (d, *J*= 5.3 Hz, 1H; H_4), 3.68 (apparent s, 2H; H_2), 2.45 (d, *J*= 5.3 Hz, 1H; $H_{3a'}$), 1.11 (s, 3H; H_{20}), 1.07 (s, 3H; H_{21}). ^{13}C NMR (75 MHz, $CDCl_3$) d = 142.6, 140.5, 138.8, 136.2, 135.5, 133.0, 132.6, 129.3, 129.2, 129.0, 128.7, 128.5, 128.3, 127.6, 127.4, 127.1, 125.7, 124.2, 118.5, 82.0, 79.6, 61.3, 54.9, 42.8, 27.2, 22.8. HRMS calcd. for $C_{33}H_{29}NOCl_2$ 525.1626, found 525.1625.

(3a*R,4*S**,9b*R**)-4-(4-fluorophenyl)-9b-[(*E*)-4-fluorostyryl]-3,3-diphenyl-2,3,3a,4,5,9b-hexahydrofuro[3,2-*c*]quinoline (4g).**



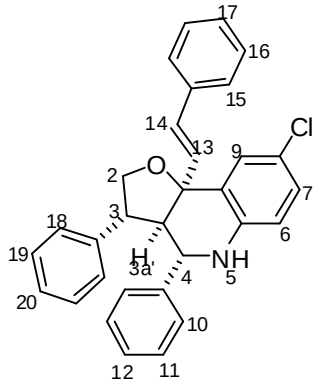
White solid. R_f 0.52 (hexane : dichloromethane, 4:1). ^{1}H NMR (401 MHz, $CDCl_3$) d = 7.43 (d, *J*= 7.7 Hz, 1H; H_9), 7.31 – 7.01 (m, 15H; H_7, H_{10}, H_{15} and $H_{17\text{-}22}$), 6.98 (t, *J*= 9.6 Hz, 2H; H_{16}), 6.93 (t, *J*= 9.0 Hz, 2H; H_{11}), 6.84 (t, *J*= 7.7 Hz, 1H; H_8), 6.46 (d, *J*= 15.8 Hz, 1H; H_{14}), 6.35 (d, *J*= 7.7 Hz, 1H; H_6), 6.02 (d, *J*= 15.8 Hz, 1H; H_{13}), 4.82 (d, *J*= 9.0 Hz, 1H; H_{2a}), 4.25 (d, *J*= 9.0 Hz, 1H; H_{2b}), 4.24 (d, *J*= 6.0 Hz, 1H; H_4), 3.84 (d, *J*= 6.0 Hz, 1H; $H_{3a'}$). ^{13}C NMR (75 MHz, $CDCl_3$) d = 162.1 (d, *J*= 246.0 Hz), 145.6, 144.6, 143.4, 139.0, 135.0, 133.0 (d, *J*= 2.9 Hz), 129.6, 129.3, 129.2, 128.3, 128.1, 128.0 (d, *J*= 7.5 Hz), 127.7, 127.2, 126.6, 126.3, 124.4, 119.2, 115.6, 115.5, 115.4 (d, *J*= 21.2 Hz), 115.3 (d, *J*= 21.7 Hz), 114.2, 82.9, 79.4, 59.5, 57.8, 56.0. HRMS calcd. for $C_{37}H_{29}NOF_2$ 541.2212, found 541.2210.

(3*R,3a*R**,4*S**,9b*R**)-4-(4-chlorophenyl)-9b-[(*E*)-4-chlorostyryl]-3,6-diphenyl-2,3,3a,4,5,9b-hexahydrofuro[3,2-*c*]quinoline (4h).**



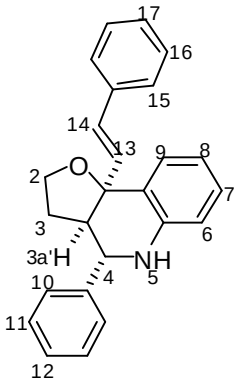
Colorless oil. R_f 0.30 (hexane : dichloromethane, 2:1). ^{1}H NMR (300 MHz, $CDCl_3$) d = 7.58 – 7.45 (m, 5H; H_{21-23}), 7.41 (d, *J*= 7.6 Hz, 1H; H_9), 7.40 (d, *J*= 7.6 Hz, 1H; H_7), 7.34 – 7.15 (m, 9H; H_{10}, H_{15} and H_{18-20}), 7.11 (d, *J*= 8.5 Hz, 2H; H_{11}), 7.04 (d, *J*= 8.5 Hz, 2H; H_{16}), 6.90 (t, *J*= 7.6 Hz, 1H; H_8), 6.55 (d, *J*= 15.9 Hz, 1H; H_{14}), 5.85 (d, *J*= 15.9 Hz, 1H; H_{13}), 4.33 (t, *J*= 8.7 Hz, 1H; H_{2a}), 4.24 (d, *J*= 4.9 Hz, 1H; H_4), 4.07 (t, *J*= 8.7 Hz, 1H; H_{2b}), 3.58 (q, *J*= 8.7 Hz, 1H; H_3), 2.78 (dd, *J*= 8.7, 4.9 Hz, 1H; $H_{3a'}$). ^{13}C NMR (75 MHz, $CDCl_3$) d = 141.0, 140.8, 139.9, 138.9, 135.4, 135.0, 133.1, 132.9, 130.9, 129.9, 129.5, 129.2, 129.1, 128.8, 128.6, 128.5, 128.2, 127.7, 127.6, 127.5, 127.2, 127.0, 126.4, 123.7, 118.3, 82.2, 77.4, 77.0, 76.6, 72.7, 59.7, 55.8, 50.0. HRMS calcd. for $C_{37}H_{29}NOCl_2$ 573.1624, found 573.1626.

(3*R,3a*R**,4*S**,9b*R**)-8-chloro-3,4-diphenyl-9b-[(*E*)-styryl]-2,3,3a,4,5,9b-hexahydrofuro[3,2-*c*]quinoline (4i).**



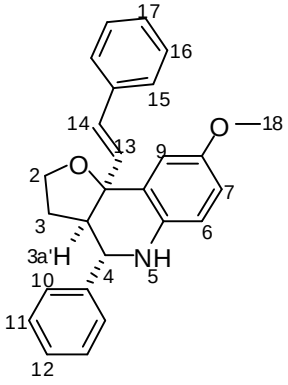
White solid. R_f 0.37 (hexane:ethyl acetate, 5:1). ^{1}H NMR (401 MHz, $CDCl_3$) d = 7.45 (d, *J*= 2.4 Hz, 1H; H_9), 7.39 – 7.21 (m, 13H; $H_{10-11,}$ H_{15-17} and H_{18-19}), 7.20 - 7.13 (m, 3H; H_7, H_{12} and H_{20}), 6.72 (d, *J*= 15.9 Hz, 1H; H_{14}), 6.71 (d, *J*= 8.8 Hz, 1H; H_6), 5.88 (d, *J*= 15.9 Hz, 1H; H_{13}), 4.34 (t, *J*= 8.5 Hz, 1H; H_{2a}), 4.33 (d, *J*= 5.2 Hz, 1H; H_4), 4.11 (t, *J*= 8.5 Hz, 1H; H_{2b}), 3.60 (q, *J*= 8.5 Hz, 1H; H_3), 2.90 (dd, *J*= 8.5, 5.2 Hz, 1H; $H_{3a'}$). ^{13}C NMR (101 MHz, $CDCl_3$) d = 142.1, 142.0, 140.9, 136.8, 133.8, 129.5, 128.9, 128.8, 128.7, 128.5, 127.9, 127.6, 127.5, 127.4, 127.0, 126.9, 126.6, 125.7, 123.3, 115.6, 81.9, 72.9, 59.7, 56.6, 50.0. HRMS calcd. for $C_{31}H_{26}NOCl$ 463.1697, found 463.1693.

(3a*R,4*S**,9b*R**)-4-phenyl-9b-[(*E*)-styryl]-2,3,3a,4,5,9b-hexahydrofuro[3,2-*c*]quinoline (4j).**



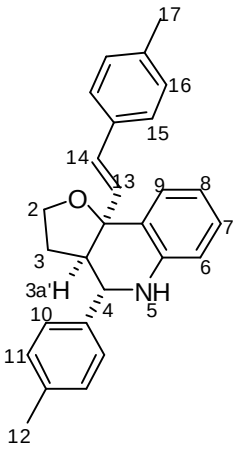
White solid. R_f 0.32 (hexane : ethyl acetate, 5:1). ^{1}H NMR (300 MHz, $CDCl_3$) d = 7.77 (dd, *J*= 7.6, 1.2 Hz, 1H; H_9), 7.34-7.19 (m, 10H; $H_{10\text{-}12}$ and $H_{15\text{-}17}$), 7.14 (td, *J*= 7.6, 1.2 Hz, 1H; H_7), 7.07 (d, *J*= 15.3 Hz, 1H; H_{14}), 6.88 (td, *J*= 7.6, 1.2 Hz, 1H; H_8), 6.43 (dd, *J*= 7.6, 1.2 Hz, 1H; H_6), 6.11 (d, *J*= 15.3 Hz, 1H; H_{13}), 3.96 (d, *J*= 9.4 Hz, 1H; H_{2a}), 3.95 (d, *J*= 9.4 Hz, 1H; H_{2b}), 3.79 (d, *J*= 10.6 Hz, 1H; H_4), 2.45 (ddd, *J*= 10.6, 7.6, 1.2 Hz, 1H; $H_{3a'}$), 1.85 (dtd, *J*= 13.0, 9.4, 7.6 Hz, 1H; H_{3a}), 1.55 (dtd, *J*= 13.0, 5.9, 1.2 Hz, 1H; H_{3b}). ^{13}C NMR (75 MHz, $CDCl_3$) d = 145.2, 142.4, 137.3, 134.5, 131.2, 128.5, 128.4, 128.4, 127.7, 127.2, 127.1, 126.7, 123.7, 118.8, 114.9, 83.7, 64.6, 57.9, 50.0, 27.6. HRMS calcd. for $C_{25}H_{23}NO$ 353.1774, found 353.1772.

(3a*R,4*S**,9b*R**)-8-methoxy-4-phenyl-9b-[(*E*)-styryl]-2,3,3a,4,5,9b-hexahydrofuro[3,2-*c*]quinoline (4k).**



White solid. R_f 0.54 (hexane : dichloromethane, 4:1). ^{1}H NMR (300 MHz, $CDCl_3$) d = 7.46-7.08 (m, 10H; $H_{10\text{-}12}$ and $H_{15\text{-}17}$), 6.90-6.81 (m, 1H; H_9), 6.73 (d, *J*= 15.8 Hz, 1H; H_{14}), 6.70-6.47 (m, 2H; H_6 and H_7), 6.06 (d, *J*= 15.8 Hz, 1H; H_{13}), 4.06 – 3.95 (m, 2H; H_2), 3.86 (d, *J*= 10.9 Hz, 1H; H_4), 3.62 (s, 3H; H_{18}), 2.51 – 2.36 (m, 1H; $H_{3a'}$), 2.07-1.91 (m, 1H; H_{3a}), 1.70-1.56 (m, 1H; H_{3b}). ^{13}C NMR (75 MHz, $CDCl_3$) d = 152.8, 141.9, 139.1, 136.9, 133.7, 128.7, 128.6, 128.2, 128.0, 127.4, 126.6, 124.0, 116.2, 114.6, 83.5, 65.3, 58.7, 55.9, 49.9, 27.7. HRMS calcd. for $C_{26}H_{25}NO_2$ 383.1880, found 383.1876.

(3a*R,4*S**,9b*R**)-4-(4-methylphenyl)-9b-[(*E*)-4-methylstyryl]-2,3,3a,4,5,9b-hexahydrofuro[3,2-*c*]quinoline (4l).**



White solid. R_f 0.38 (hexane : ethyl acetate, 5:1). ^{1}H NMR (300 MHz, $CDCl_3$) d = 7.64 (dd, *J*= 7.0, 1.1 Hz, 1H; H_9), 7.35-7.11 (m, 8H; $H_{10\text{-}11}$ and $H_{15\text{-}16}$), 7.10 (td, *J*= 7.0, 1.1 Hz, 1H; H_7), 7.06 (d, *J*= 16.0 Hz, 1H; H_{14}), 6.81 (td, *J*= 7.0, 1.1 Hz, 1H; H_8), 6.39 (dd, *J*= 7.0, 1.1 Hz, 1H; H_6), 6.03 (d, *J*= 16.0 Hz, 1H; H_{13}), 4.12 (d, *J*= 8.5 Hz, 1H; H_{2a}), 4.08 (d, *J*= 8.5 Hz, 1H; H_{2b}), 3.86 (d, *J*= 10.0 Hz, 1H; H_4), 2.41 (ddd, *J*= 10.0, 7.1, 1.2 Hz, 1H; $H_{3a'}$), 2.39 (s, 3H; H_{12}), 2.31 (s, 3H; H_{17}), 1.78 (dtd, *J*= 12.8, 9.4, 7.1 Hz, 1H; H_{3a}), 1.57 (dtd, *J*= 12.8, 5.9, 1.0 Hz, 1H; H_{3b}). ^{13}C NMR (75 MHz, $CDCl_3$) d = 153.2, 150.1, 146.0, 142.3, 138.1, 137.1, 131.4, 128.5, 128.4, 128.0, 127.9, 127.2, 127.1, 126.5, 123.9, 119.0, 115.4, 81.2, 65.9, 58.3, 45.2, 32.8, 29.6, 25.2. HRMS calcd. for $C_{27}H_{27}NO$ 381.2090, found 381.2095.