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SUPPLEMENTARY MATERIAL TO

New 9-aminoacridine derivatives as inhibitors of botulinum neurotoxins and *P. falciparum* malaria

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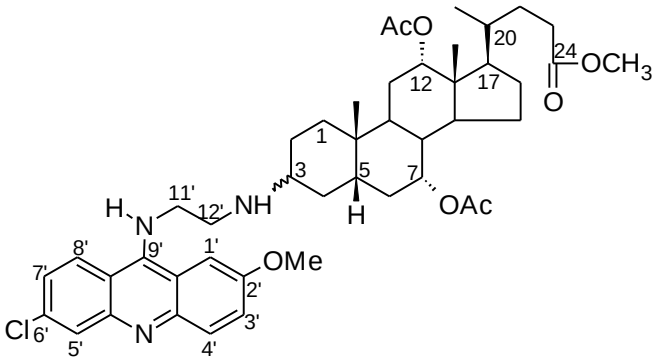

SPECTRAL AND ANALYTICAL DATA OF ALL THE SYNTHESIZED COMPOUNDS

*Methyl 7α,12α-diacetoxy-3α-(*N*-{2-[(6-chloro-2-methoxyacridin-9-yl)amino]-ethyl}amino)-5β-cholan-24-oate (**16**)*. Yield: 9.6 %; Yellow foam, softens at 101–104 °C; ^{1}H-NMR (200 MHz, $CDCl_3$, δ / ppm): 8.12 (*d*, J = 9.0 Hz, H--C(8′)), 8.05 (*d*, J = 2.2 Hz, H-C(5′)), 7.98 (*d*, J = 9.6 Hz, H-C(4′), 7.41, (*dd*, J_1 = = 2.4 Hz, J_2 = 9.0 Hz, H-C(3′)), 7.45–7.25 (*m*, H-C(1′), H-C(7′)), 5.10 (*bs*, H--C(12)), 4.95–4.85 (*m*, H-C(7)), 3.97 (*s*, ACR-OCH_3), 3.85–3.70 (*bs*, 2H-C(11′)), 3.66 (*s*, CO_2CH_3), 3.05–2.90 (*m*, 2H-C(12′)), 2.50–2.34 (*m*, H$_\beta$-C(3)), 2.11 (*s*,

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CH_3COO), 1.98 (*s*, CH_3COO), 0.93 (*s*, CH_3-C(10)), 0.82 (*d*, *J* = 6.2 Hz, CH_3--C(20)), 0.74 (*s*, CH_3-C(13)); ^{13}C-NMR (50 MHz $CDCl_3$, δ / ppm): 174.57, 170.57, 170.44, 155.91, 150.34, 148.17, 134.95, 131.13, 127.91, 124.45, 124.32, 117.93, 160.00, 99.58, 95.79, 75.56, 70.94, 57.76, 55.52, 51.51, 49.54, 47.38, 46.47, 45.10, 43.52, 41.66, 37.74, 37.31, 35.51, 34.80, 34.58, 31.48, 30.84, 30.75, 29.10, 28.95, 27.15, 25.62, 22.83, 21.52, 21.40, 17.46, 12.22; HRMS (*m*/*z*): 790.42058 corresponds to the molecular formula $C_{45}H_{60}ClN_3O_7^+$ (error +1.67 ppm)

*Methyl 7α,12α-diacetoxy-3*β*-(*N*-{2-[(6-chloro-2-methoxyacridin-9-yl)amino]ethyl}amino)-5*β*-cholan-24-oate* (***17***). Yield: 8.5 %; Yellow foam, softens at 102–105 °C; ^{1}H-NMR (500 MHz, $CDCl_3$, δ / ppm): 8.07 (*d*, *J* = 9.3 Hz, H--C(8′)), 8.03 (*d*, *J* = 2.0 Hz, H-C(5′)), 7.97 (*d*, *J* = 9.3 Hz, H-C(4′)), 7.39 (*dd*, J_1 = = 2.6 Hz, J_2 = 9.4 Hz, H-C(3′)), 7.28 (*d*, *J* = 2.6 Hz, H-C(1′)), 7,24 (*dd*, J_1 = 2.1 Hz, J_2 = 9.2 Hz, H-C(7′)), 5.10 (*bs*, H-C(12)), 4.94–4.90 (*m*, H-C(7)), 3.94 (*s*, ACR-OCH_3), 3.79–3.74 (*m*, 2H-C(11′)), 3.66 (*s*, CO_2CH_3), 2.93 (*bs*, H_α-C(3)), 2.91–2.86 (*m*, 2H-C(12′)), 2.39–2.30 (*m*, 1H)), 2.25–2.15 (*m*, 3×H), 2.12 (*s*, CH_3COO), 2.08 (*s*, CH_3COO), 0.96 (*s*, CH_3-C(10)), 0.82 (*d*, *J* = 6.6 Hz, CH_3-C(20)), 0.74 (*s*, CH_3-C(13)); ^{13}C-NMR (125 MHz, $CDCl_3$, δ / ppm): 174.50, 170.44, 170.34, 155.74, 150.37, 147.90, 135.0, 130.75, 127.56, 124.34, 124.09, 117.50, 115.54, 99.77, 75.47, 71.00, 55.45, 52.32, 51.49, 49.27, 47.34, 46.90, 45.03, 43.33, 37.72, 36.28, 34.91, 34.58, 33.39, 31.18, 30.87, 30.74, 30.17, 28.32, 27.15, 25.67, 25.02, 23.20, 22.79, 21.57, 21.31, 17.48, 12.17; HRMS (*m*/*z*): 790.41962 corresponds to the molecular formula $C_{45}H_{60}ClN_3O_7H^+$ (error +0.46 ppm).

*Methyl 7α,12α-diacetoxy-3*β*-(*N*-{3-[(6-chloro-2-methoxyacridin-9-yl)amino]propyl}amino)-5*β*-cholan-24-oate* (***18***). Yield: 15 %, contains *ca*. 20 % of the 3*α*-isomer **19**; Yellow foam, softens at 100–103 °C; ^{1}H-NMR (500 MHz, $CDCl_3$, δ / ppm): 8.08 (*d*, *J* = 9.6 Hz, H-C(8′)), 8.02 (*d*, *J* = 1.8 Hz, H-C(5′)), 7.98 (*d*, *J* = 9.6, H-C(4′)), 7.43–7.35 (*m*, N-H, H-C(3′)), 7.36–7.25 (*m*, H-C(1′)), 7.10 (*dd* , J_1 = 2.2 Hz, J_2 = 9.20 Hz, H-C(7′)), 5.09 (*s*, H-C(12)), 4.91(*d*, *J* = 2.6, H-C(7)), 3.95–3.90 (*m*, ACR-OCH_3, 2H-C(11′)), 3,66 (*s*, CO_2CH_3), 2.93 (*bs*, H_α-C(3)), 2.90–2.80 (*m*, 2H-C(13′)), 2.38–2.30 (2H-C(24)), 2.11 (*s*, CH_3COO), 2.08 (*s*, CH_3COO), 0.87 (*s*, CH_3-C(10)), 0.82 (*d*, *J* = 6.4 Hz, CH_3-C(20)), 0.72 (*s*, CH_3-C(13)); ^{13}C-NMR (125 MHz $CDCl_3$, δ / ppm): 174.53, 170.45, 170.38, 155.30, 150.73, 148.05, 140.51, 134.87, 130.95, 127.51, 124.51, 123.76, 123.66, 117.08, 115.10, 101.34, 75.51, 71.05, 55.59, 53.25, 51.51, 51.05, 47.36, 46.75, 45.05, 43.35, 37.72, 36.23, 34.88, 34.61, 33.16, 31.21, 30.89, 30.77, 30.17, 29.59, 28.46, 27.18, 25.68, 24.52, 23.04, 22.82, 21.60, 21.34, 17.51, 12.18; HRMS (*m*/*z*): 804.43541 corresponds to the molecular formula $C_{46}H_{62}ClN_3O_7H^+$ (error +0.62 ppm).

*Methyl 7α,12α-diacetoxy-3α-(*N-*{3-[(6-chloro-2-methoxyacridin-9-yl)amino]propyl}amino)-5β-cholan-24-oate (**19**)*. Yield: 11 %, mixture of *ca*. 1:1.5 ratio of the *β*- and *α*-isomers; Yellow foam, softens at 100–103 °C; ^{1}H-NMR (500 MHz, $CDCl_3$, *δ* / ppm): 8.07–7.96 (*m*, H-C(8′)), 7.73–7.65 (*m*, H-C(5′), H--C(4′)), 7.42 (*bs* , H-C(1′)), 7.24–7.11, (*m*, H-C(3′)), H-C(7′)), 5.10–5.03 (*m*, H--C(12)), 4.95–4.85 (*m*, H-C(7)), 4.17–4.09 (*bs*, 2H-C(11′)), 3.91–3.86 (*m*, ACR--OCH_3), 3.65 (*s*, CO_2CH_3), 3.646 (*s*, CO_2CH_3), 3.33–3.19, (1H, *m*), 3.17–3.10 (*m*, 2H-C(12′)), 3.07–2.99 (1H, *m*), 2.76–2.67 (1H, *m*), 2.10 (*s*, CH_3COO), 2.06 (*s*, CH_3COO), 0.94 (*s*, CH_3-C(10)), 0.83–0.77 (*m*, CH_3-C(20)), 0.73 (*s*, CH_3--C(13)), 0.72 (*s*, CH_3-C(13)); ^{13}C-NMR (125 MHz $CDCl_3$, *δ* / ppm): 174.55, 170.99, 170.81, 155.95, 150.73, 148.05, 140.51, 134.87, 130.95, 127.51, 124.51, 123.76, 123.66, 117.08, 115.10, 101.34, 75.22, 70.54, 59.23, 56.05, 51.51, 47.38, 47.30, 45.10, 45.06, 43.33, 41.51, 37.85, 35.08, 34.71, 34.59, 31.61, 31.35, 30.87, 30.77, 29.65, 28.97, 27.17, 25.58, 22.83, 22.72, 21.55, 21.34, 21.14, 17.52, 17.46, 12.21.

*3α,7α,12α-Triacetoxy-24-{*N-*{2-[(6-chloro-2-methoxyacridin-9-yl)amino]ethyl}amino}-5β-cholan (**20**)*. Yield: 42 %; Orange solid, m.p.: 115–117 °C; Anal. Calcd. for $C_{46}H_{62}ClN_3O_7$: C, 68.68; H, 7.77; N, 5.22 %. Found: C, 68.28; H, 7.52; N, 5.00 %; IR (ATR, cm^{-1}): 3324*w*, 2945*m*, 2870*m*, 1731*s*, 1632*w*, 1563*m*, 1522*w*, 1469*m*, 1375*m*, 1250*s*, 1068*w*, 1028*m*, 736*w*; ^{1}H-NMR (500 MHz, $CDCl_3$, *δ* / ppm): 8.08 (*d*, *J* = 9.0 Hz, H-C(8′)), 8.01 (*d*, *J* = 2.0 Hz, H-C(5′)), 7.96 (*d*, *J* = 9.0 Hz, H-C(4′)), 7.37 (*dd*, J_1 = 2.0 Hz, J_2 = 9.0 Hz, H-C(3′)), 7.32 (*d*, *J* = 2.5 Hz, H-C(1′)), 7.23 (*dd*, J_1 = 2.5 Hz, J_2 = 9.0 Hz, H-C(3′)), 5.11 (*bs*, H-C(12)), 4.92–4.90 (*m*, H-C(7)), 4.61–4.54 (*m*, H-C(3)), 3.95 (*s*, ACR--OCH_3), 3.84–3.80 (*m*, 2H-C(11′)), 3.01–2.97 (*m*, 2H-C(12′)), 2.72–2.63 (*m*, 2H--C(24)), 2.13 (*s*, CH_3COO–), 2.08 (*s*, CH_3COO–), 2.05 (*s*, CH_3COO–), 0.92 (*s*, H_3C-C(10)), 0.84 (*d*, *J* = 6.5 Hz, H_3C-C(20)), 0.74 (*s*, H_3C-C(13)); ^{13}C-NMR (125 MHz, $CDCl_3$, *δ* / ppm): 170.50, 170.48, 170.34, 155.88, 150.78, 135.38, 124.75, 124.11, 117.44, 115.14, 99.77, 75.43, 74.07, 70.70, 55.50, 49.70, 49.03, 48.49, 47.67, 45.06, 43.40, 40.93, 37.75, 35.02, 34.69, 34.61, 34.33, 33.35, 31.24, 28.90, 27.33, 26.88, 26.74, 25.58, 22.82, 22.54, 21.59, 21.47, 21.43, 17.92, 14.17, 12.25; HRMS (*m*/*z*): 804.43437 corresponds to the molecular formula $C_{46}H_{62}ClN_3O_7H^+$ (error –0.66 ppm), $[M+2H]^{2+}$ = 402.72035 (error –1.85 ppm).

*3α-7α,12α-Triacetoxy-24-{*N-*{3-[(6-chloro-2-methoxyacridin-9-yl)amino]propyl}amino}-5β-cholan (**21**)*. Yield: 29 %; Orange solid, m.p.: 93–94 °C; Anal. Calcd. for $C_{47}H_{64}ClN_3O_7$: C, 68.97; H, 7.88; N, 5.13 %. Found: C, 68.39; H, 7.60; N, 5.01 %; IR (ATR, cm^{-1}): 3258*w*, 2944*m*, 2869*m*, 1730*s*, 1632*m*, 1606*w*, 1565*m*, 1521*m*, 1469*m*, 1439*m*, 1375*m*, 1250*s*, 1119w, 1029*m*, 831*w*, 738*w*; ^{1}H-NMR (500 MHz, $CDCl_3$, *δ* / ppm): 8.10 (*d*, *J* = 9.3 Hz, H--C(8′)), 8.01 (*d*, *J* = 2.1 Hz, H-C(5′)), 7.96 (*d*, *J* = 9.3 Hz, H-C(4′)), 7.39 (*dd*, J_1 =

= 2.7 Hz, J_2 = 9.4 Hz, H-C(3′)), 7.35 (*d*, *J* = 2.7 Hz, H-C(1′)), 7.22 (*dd*, J_1 = 9.3 Hz, J_2 = 2.1 Hz, H-C(7′)), 5.09 (*bs*, H-C(12)), 4.92–4.88 (*m*, H-C(7)), 4.61–4.53 (*m*, H-C(3)), 3.98–3.91 (*m*, ACR-OCH_3 and 2H-C(11′)), 2.94 (*t*, *J* = 5.6 Hz, 2H--C(13′)), 2.73–2.61 (*m*, 2H-C(24)), 2.09 (*s*, CH_3COO–), 2.06 (*s*, CH_3COO–), 2.05 (*s*, CH_3COO–), 0.91 (*s*, H_3C-C(10)), 0.84 (*d*, *J* = 6.6 Hz, H_3C-C(20)), 0.72 (*s*, H_3C-C(13)), ^{13}C-NMR (125 MHz, $CDCl_3$, δ / ppm): 170.52, 170.49, 170.36, 155.21, 150.61, 148.55, 146.80, 134.63, 131.14, 127.93, 124.73, 123.76, 123.45, 116.93, 114.93, 100.90, 75.42, 74.05, 70.67, 55.50, 51.10, 50.92, 49.35, 47.62, 45.04, 43.43, 40.91, 37.73, 35.00, 34.65, 34.59, 34.30, 33.41, 31.23, 30.11, 28.92, 27.27, 26.85, 26.53, 25.58, 22.78, 22.53, 21.56, 21.46, 21.38, 17.91, 12.24; HRMS (*m*/*z*): 818.44946 corresponds to the molecular formula $C_{47}H_{64}ClN_3O_7H^+$ (error –1.34 ppm), 409.72839 corresponds to molecular formula $C_{47}H_{64}ClN_3O_7H_2^{2+}$ (error –1.29 ppm).

N-*[2-(1-Adamantyl)ethyl]*-N′-*(6-chloro-2-methoxyacridin-9-yl)ethane-1,2--diamine (**22**)*. Yield: 10 %; m.p.: 112–120 °C; IR (ATR, cm^{-1}): 3291*m*, 3061*w*, 2995*w*, 2908*s*, 2847*s*, 2654*w*, 1676*w*, 1632*m*, 1564*s*, 1527*s*, 1471*m*, 1343*w*, 1264*w*, 1240*m*, 1169*w*, 1123*w*, 1037*w*, 930*w*, 827*w*; ^{1}H-NMR (500 MHz, $CDCl_3$, δ / ppm): 8.09 (*d*, *J* = 9.2 Hz, H-C(8′)), 8.03 (*d*, *J* = 2.1 Hz, H-C(5′)), 7.97 (*d*, *J* = 9.4 Hz, H-C(4′)), 7.39 (*dd*, J_1 = 2.6 Hz, J_2 = 9.4 Hz, H-C(3′)), 7.32 (*d*, *J* = 2.6 Hz, H-C(1′)), 7.25 (*dd*, J_1 = 2.1 Hz, J_2 = 9.2 Hz, H-C(7′)), 3.96 (*s*, ACR-OCH_3), 3.78 (*t*, *J* = 5.5 Hz, 2H-C(11′)), 2.96 (*t*, *J* = 5.5 Hz, 2H-C(12′)), 2.73–2.67 (*m*, C**H**$_2$$CH_2$Ad), 1.95 (*bs*, 3H-Ad), 1.73–1.60 (m, 7H-Ad), 1.53–1.48 (*m*, 6H-Ad and NH), 1.40–1.33 (*m*, CH_2C**H**$_2$Ad); ^{13}C-NMR (125 MHz, $CDCl_3$, δ / ppm): 155.89, 150.63, 124.76, 124.65, 124.13, 117.76, 99.52, 55.52, 49.33, 48.74, 45.01, 43.75, 42.71, 37.09, 31.91, 28.63; HRMS (*m*/*z*): 464.2458 corresponds to the molecular formula $C_{28}H_{34}N_3ClOH^+$ (error: –1.08 ppm).

N-*[2-(1-Adamantyl)ethyl]*-N′-*(6-chloro-2-methoxyacridin-9-yl)propane-1,3--diamine (**23**)*. Yield: 46 %; Brown–orange amorphous solid, m.p.: 76–78 °C; IR (ATR, cm^{-1}): 3270*m*, 3076*w*, 2903*s*, 2845*s*, 1732*w*, 1632*s*, 1566*s*, 1522*s*, 1446*s*, 1350*m*, 1241*s*, 1114*m*, 1073*w*, 1036*m*, 927*m*, 872*w*, 831*m*, 804*w*; ^{1}H-NMR (500 MHz, MeOD, δ / ppm): 8.25 (*d*, *J* = 9.3 Hz, H-C(8′)), 7.82 (*d*, *J* = 2.1 Hz, H-C(5′)), 7.79 (*d*, *J* = 9.4 Hz, H-C(4′)), 7.52 (*d*, *J* = 2.5 Hz, H-C(1′)), 7.42 (*dd*, J_1 = 2.6 Hz, J_2 = 9.4 Hz, H-C(3′)), 7.28 (*dd*, J_1 = 2.1 Hz, J_2 = 9.3 Hz, H-C(7′)), 3.97 (*s*, ACR-OCH_3), 3.92 (*t*, *J* = 6.8 Hz, 2H-C(11′)), 2.80 (*t*, *J* = 7.1 Hz, 2H--C(13′)), 2.63–2.59 (*m*, C**H**$_2$$CH_2$Ad), 2.02–1.96 (*m*, 2H-C(12′)), 1.93 (*bs*, 3H-Ad and NH), 1.75–1.60 (*m*, 7H-Ad), 1.45–1.42 (*m*, 6H-Ad), 1.25–1.19 (*m*, CH_2C**H**$_2$Ad); ^{13}C-NMR (125 MHz, MeOD, δ / ppm): 157.55; 153.23; 148.72; 137.01; 129.63; 127.48; 126.33; 126.17; 124.51; 118.79; 115.97; 101.97; 56.46; 47.90; 44.83; 43.64; 43.54; 38.22; 32.86; 30.54; 30.19; HRMS (*m*/*z*): 478.2603 corresponds to the molecular formula $C_{29}H_{36}N_3ClOH^+$ (error: –3.58 ppm),

239.6341 corresponds to the molecular formula $C_{29}H_{36}N_3ClOH_2^{2+}$ (error –2.32 ppm).

N-*Benzyl*-N′-*(6-chloro-2-methoxyacridin-9-yl)ethane-1,2-diamine (**24**)*. Yield: 60 %; Brown–orange amorphous solid, m.p.: 90–92°C; IR (ATR, cm^{-1}): 3366*m*, 3287*m*, 3066*w*, 3007*w*, 2963*w*, 2939*w*, 2899*w*, 2821*m*, 2709*w*, 1630*m*, 1606*w*, 1558*s*, 1524*s*, 1504*s*, 1437*s*, 1395*w*, 1339*m*, 1253*s*, 1234*s*, 1169*m*, 1141*w*, 1150*m*, 1082*w*, 1037*m*, 989*w*, 928*m*, 866*w*, 842*w*, 820*m*, 793*w*, 751*s*; ^{1}H-NMR (500 MHz, $CDCl_3$): 8.06 (*d*, *J* = 9.2 Hz, H-C(8)), 8.04 (*d*, *J* = 1.8 Hz, H-C(5)), 7.97 (*d*, *J* = 9.2 Hz, H-C(4)), 7.39 (*dd*, J_1 = 2.7 Hz, J_2 = 9.4 Hz, H-C(3)), 7.36––7.33 (*m*, H-C(1) and 3H-Ar), 7.32–7.26 (*m*, 2H-Ar), 7.24 (*dd*, J_1 = 2.1 Hz, J_2 = = 9.2 Hz, H-C(7)), 6.03 (*bs*, NH), 3.86 (*bs*, $ArCH_2$ and ACR-OCH_3), 3.75–3.72 (*m*, 2H-C(11)), 2.96–2.93 (*m*, 2H-C(12)), 1.71 (*bs*, NH); ^{13}C-NMR (125 MHz, $CDCl_3$, *δ* / ppm): 155.87, 150.15, 148.46, 146.75, 139.84, 134.65, 131.40, 128.56, 128.16, 128.03, 127.29, 124.48, 124.20, 118.06, 115.97, 99.23, 55.38, 53.36, 48.94, 48.80. HRMS (*m*/*z*): 392.1524 corresponds to the molecular formula $C_{23}H_{22}N_3ClOH^+$ (error: –1.57 ppm).

N-*(6-Chloro-2-methoxyacridin-9-yl)ethane-1,2-diamine (**12**)*.[1] Yield: 89 %; ^{1}H-NMR (500 MHz, CD_3OD, *δ* / ppm): 8.16 (*d*, *J* = 9.2 Hz, H-C(8)), 7.80 (*d*, *J* = = 2.1 Hz, H-C(5)), 7.76 (*d*, *J* = 9.4 Hz, H-C(4)), 7.41 (*d*, *J* = 2.6 Hz, H-C(1)), 7.35 (*dd*, J_1 = 2.2 Hz, J_2 = 9.3 Hz, H-C(3)), 7.22 (*dd*, J_1 = 2.2 Hz, J_2 = 9.3 Hz, H-C(7)), 3.93 (*bs*, OCH_3), 3.77 (*t*, *J* = 6.4 Hz, 2H-C(11)), 2.99 (*t*, *J* = 6.4 Hz, 2H--C(12)); ^{13}C-NMR (125 MHz, CD_3OD *δ* / ppm): 157.43, 152.80, 149.21, 147.00, 136.48, 130.46, 127.14, 126.98, 126.21, 124.55, 118.88, 116.25, 101.08, 56.28, 53.32, 43.38.

N-*(6-Chloro-2-methoxyacridin-9-yl)propane-1,3-diamine (**13**)*.[1] Yield: 95 % ^{1}H-NMR (200 MHz, $CDCl_3$, *δ* / ppm): 8.08–7.88 (*m*, H-C(8), H-C(5) and H--C(4)), 7.40–7.35 (*m*, H-C(3)), 7.28 (*d*, *J* = 3.0 Hz, H-C(1)), 7.14 (*dd*, J_1 = 2.2 Hz, J_2 = 9.0 Hz, H-C(7)), 3.93–3.83 (*m*, OCH_3, 2H-C(11)), 3.06 (*t*, *J* = 5.6 Hz, 2H-C(13)), 1.88–1.75 (*m*, 2H-C(12)); ^{13}C-NMR (50 MHz, $CDCl_3$, *δ* / ppm): 155.31, 150.39, 148.68, 146.17, 134.61, 130.77, 127.52, 125.27, 124.01, 123.01, 116.69, 114.24, 100.01, 55.33, 50.78, 41.37, 32.06.

N-*(6-Chloro-2-methoxyacridin-9-yl)pentane-1,5-diamine (**14**)*.[2] Yield: 87 %; ^{1}H-NMR (200 MHz, $CDCl_3$, *δ* / ppm): 8.04–7.90 (*m*, H-C(8), H-C(5) and H--C(4)), 7.43–7.35 (*m*, 1H), 7.29–7.10 (*m*, 2H), 4.72 (*bs*, NH), 3.93 (*bs*, OCH_3), 3.70–3.54 (*m*, 2H-C(11)), 2.68 (*bs*, 2H-C(15)), 1.85–1.60 (*m*, 2H-C(12)), 1.45 (*bs*, 2H-C(14) and 2H-C(13)), 1.22 (*bs*, NH_2); ^{13}C-NMR (50 MHz, $CDCl_3$, *δ* / / ppm): 155.86, 149.57, 148.28, 146.70, 134.61, 131.40, 128.14, 124.36, 123.96, 117.78, 115.73, 98.99, 55.39, 50.49, 41.86, 33.18, 31.52, 24.09.

N-*(6-Chloro-2-methoxyacridin-9-yl)hexane-1,6-diamine (**15**)*.[3] Yield; 85 %; ^{1}H-NMR (200 MHz, CD_3OD, *δ* / ppm): 8.07 (*d*, *J* = 8.8 Hz, H-C(8)), 7.79–7.71 (*m*, H-C(5) and H-C(4)), 7.36–7.28 (*m*, H-C(1) and H-C(3)), 7.15 (*dd*, J_1 = 2.2

Hz, J_2 = 9.6 Hz, H-C(7)), 3.90 (*s*, ACR-OCH_3), 3.69–3.61 (*m*, 2H-C(11)), 2.60––2.49 (*m*, 2H-C(16)), 1.78–1.61 (*m*, 2H-C(12)), 1.45–1.20 (*m*, 6H); ^{13}C-NMR (50 MHz, CD_3OD, δ / ppm): 157.04, 152.69, 149.23, 146.90, 136.29, 130.35, 127.02, 126.95, 125.93, 124.02, 118.19, 115.59, 101.04, 56.10, 50.84, 42.37, 33.65, 32.12, 27.81, 27.68.

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