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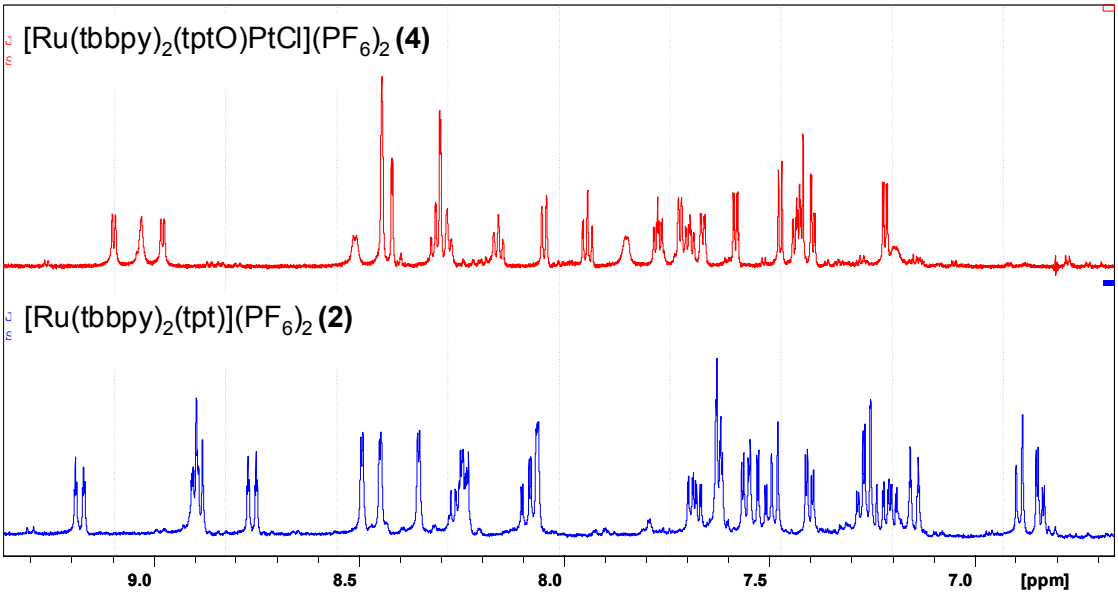
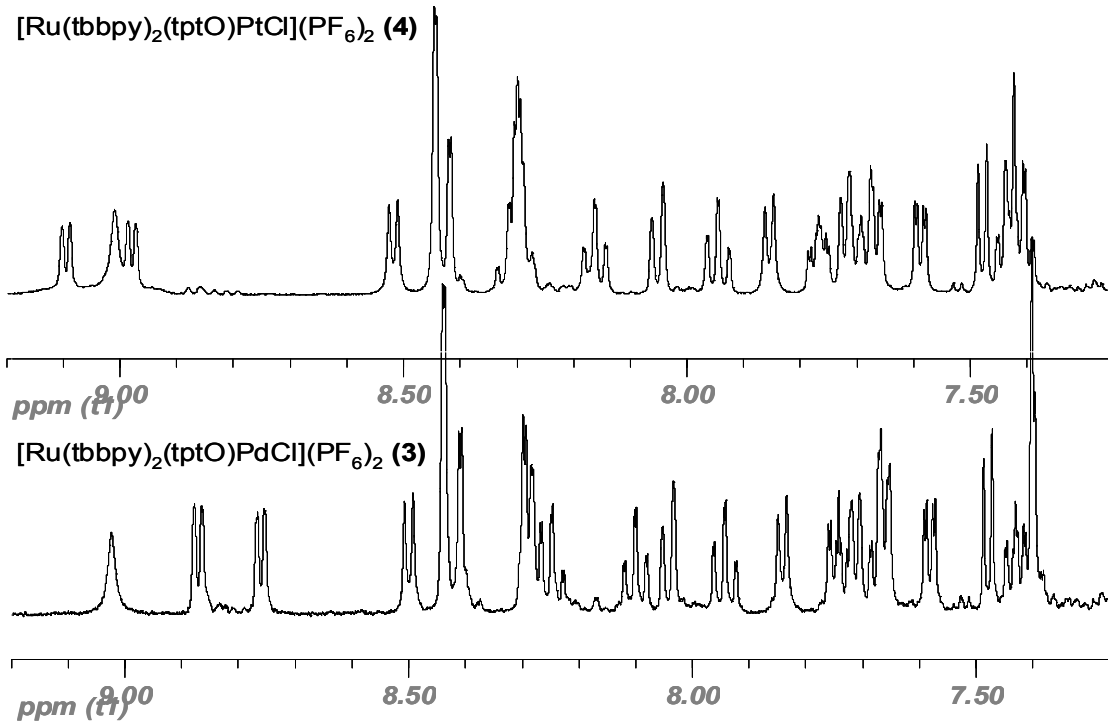
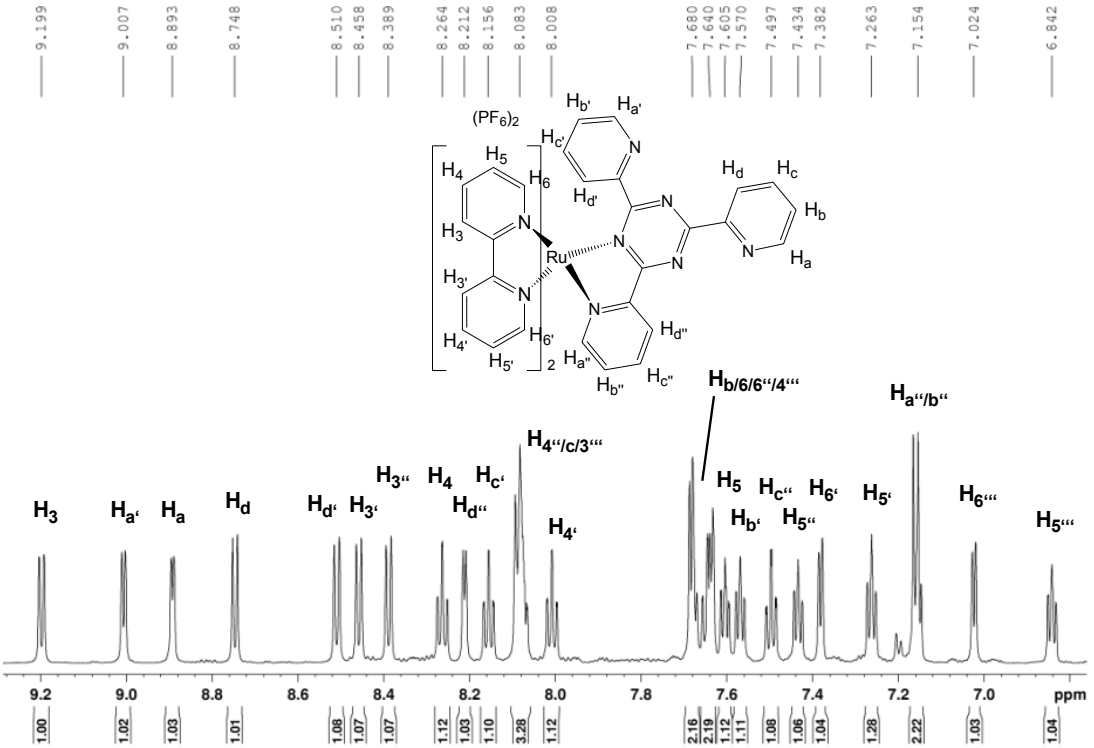
^{1}H-NMR spectra comparision of $[Ru(tbbpy)_2(tpt)](PF_6)_2$ **2** and $[Ru(tbbpy)_2(tptO)PtCl](PF_6)_2$ **(4)** at 400MHz in CD_3CN



^{1}H-NMR spectra comparision of $[Ru(tbbpy)_2(tptO)PtCl](PF_6)_2$ **(4)** and $[Ru(tbbpy)_2(tptO)PdCl](PF_6)_2$ **(3)** at 400MHz in CD_3CN



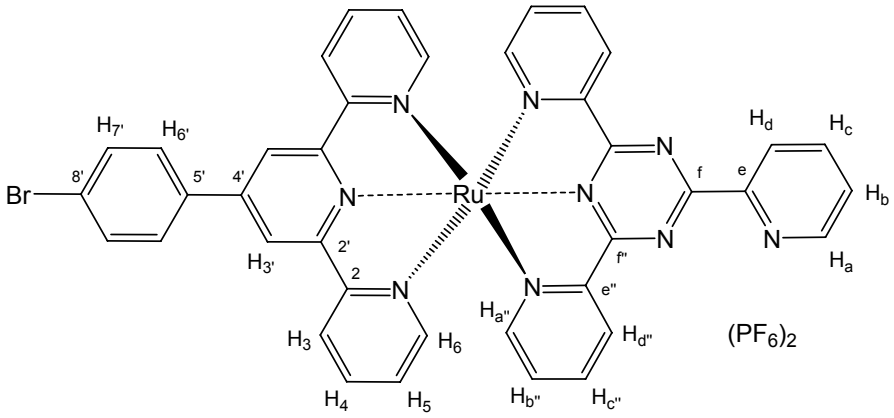
^{1}H-NMR spectra of $[(bpy)_2Ru(tpt)](PF_6)_2$ **1** at 700 MHz in CD_3CN and the assignment of the according NMR values:



^{1}H-NMR (700 MHz, CD_3CN, 300 K): δ = 9.21 (d, 1H, J = 8.0 Hz, H3), 9.02 (d, 1H, J = 5.2 Hz, Ha'), 8.91 (d, 1H, J = 4.4 Hz, Ha), 8.77 (d, 1H, J = 8.0 Hz, Hd), 8.53 (d, 1H, J = 8.4 Hz, Hd'), 8.48 (d, 1H, J = 8.0 Jz, H3'), 8.41 (d, 1H, J = 8.0 Hz, H3''), 8.28 (m, 1H, H4), 8.23 (d, 1H, J = 4.0 Hz, Hd''), 8.17 (m, 1H, Hc'), 8.10 (m, 3H, H3''' und H4'' und Hc), 8.02 (m, 1H, H4'), 7.66 (m, 4H, H6 und Hb und H4''' und H6''), 7.60 (m, 1H, H5), 7.57 (m, 1H, Hb'), 7.51 (m, 1H, Hc''), 7.45 (m, 1H, H5''), 7.40 (d, 1H, J = 5.6 Hz, H6'), 7.28 (m, 1H, H5') , 7.18 (m, 2H, Hb'' und Ha''), 7.03 (d, 1H, J = 5.6 Hz, H6'''), 6.86 (m, 1H, H5''') ppm.

^{13}C-{^{1}H}-NMR (125 MHz, CD3CN, 300 K): δ = 123.97 (Ca''), 124.01 (C3'''), 125.08 (Cd'), 125.18 (C3''), 125.35 (C3'), 126.83 (Cd), 126.86 (Cb''), 127.75 (C5'''), 127.91 (Cb'), 128.61 (C5'), 128.70 (C5''), 128.84 (Cb), 130.08 (C3), 131.71 (C5), 137.78 (C4'''), 138.39 (Cc''), 138.71 (Cc), 139.16 (Cc'), 139.25 (C4' und C4''), 139.47 (C4), 150.42 (Cd''), 151.75 (Ca), 151.85 (Ce), 152.39 (C6'), 152.43 (C6''), 153.24 (C6'''), 153.60 (C6), 154.71 (Ce''), 155.53 (C2), 156.21 (Ca'), 157.09 (C2'''), 157.55 (Ce'), 158.08 (C2'), 158.19 (C2''), 169.66 (Cf), 175.23 (Cf''), 178.36 (Cf') ppm.

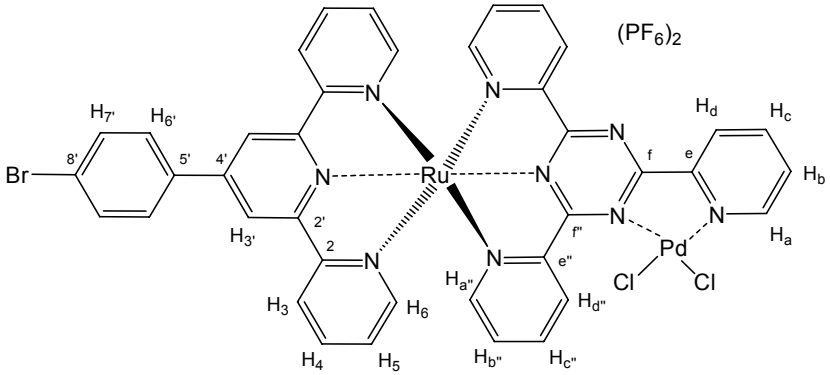
^{1}H-NMR spectra of $[(BrPhtpy)Ru(tpt)](PF_6)_2$ **5** at 400 MHz in CD_3CN and the assignment of the according NMR values:



^{1}H-NMR (400 MHz, CD_3CN, 300 K): δ = 9.17 (d, 1H, J = 8.0 Hz, H_d), 9.09 (m, 3H, $H_{d''}$ und H_a), 9.06 (s, 2H, $H_{3'}$), 8.69 (d, 2H, J = 8.0 Hz, H_3), 8.28 (m, 1H, H_c), 8.17 (m, 4H, $H_{c''}$ und $H_{6'}$), 7.99 (m, 4H, $H_{7'}$ und H_4), 7.82 (m, 1H, H_b), 7.70 (d, 2H, J = 5.2 Hz, $H_{a''}$), 7.48 (m, 4H, $H_{b''}$ und H_6), 7.16 (m, 2H, H_5) ppm.

^{13}C-{^{1}H}-NMR (100 MHz, CD_3CN, 300 K): δ = 122.59 ($C_{3'}$), 125.51 ($C_{8'}$), 125.64 (C_3), 126.71 (C_d), 128.33 (C_5), 128.49 (C_b), 128.96 ($C_{d''}$), 130.62 ($C_{6'}$), 131.52 ($C_{b''}$), 133.64 ($C_{7'}$), 136.72 ($C_{5'}$), 138.86 (C_c), 139.47 (C_4), 139.69 ($C_{c''}$), 149.04 ($C_{4'}$), 151.79 (C_a), 153.10 (C_e), 154.17 (C_6), 155.07 ($C_{e''}$), 155.15 ($C_{a''}$), 156.24 ($C_{2'}$), 158.86 (C_2), 168.71 (C_f), 171.78 ($C_{f''}$) ppm.

^{1}H-NMR spectra of $[(BrPhtpy)Ru(tpt)PdCl_2](PF_6)_2$ **6** at 400 MHz in CD_3CN and the assignment of the according NMR values:

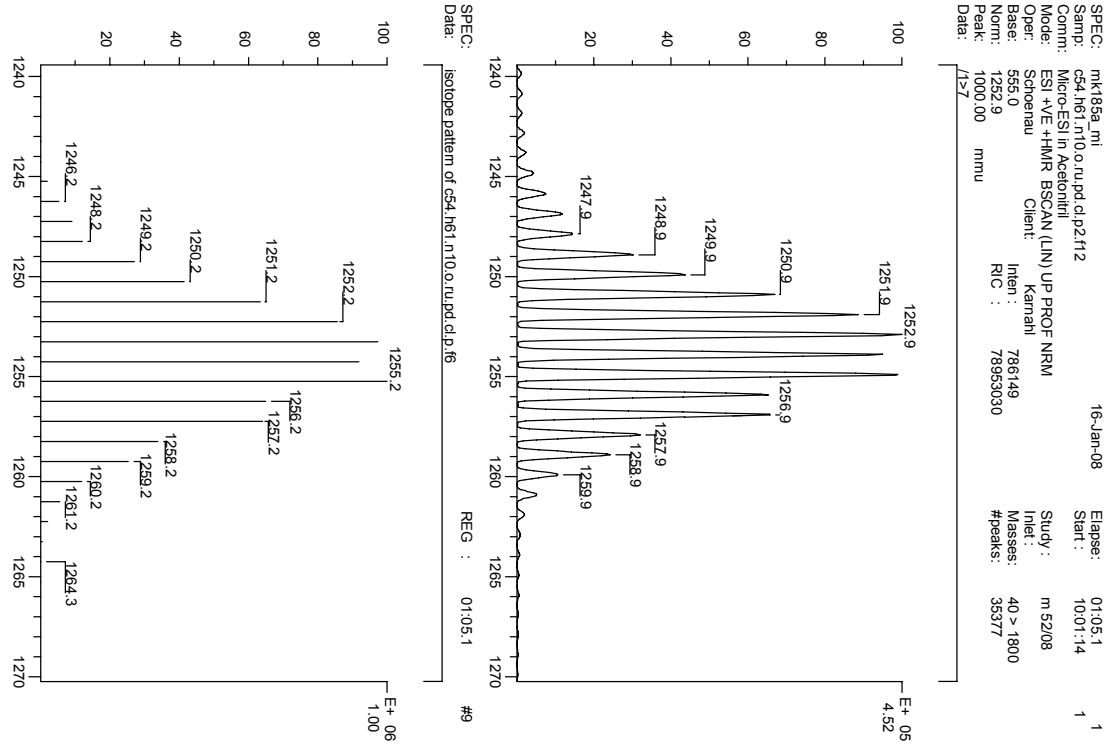


^{1}H-NMR (400 MHz, CD_3CN, 300 K): δ = 9.42 (d, 2H, J = 8.0 Hz, $H_{d''}$), 9.34 (d, 1H, J = 6.0 Hz, H_a oder H_d), 9.07 (s, 2H, $H_{3'}$), 8.90 (d, 1H, J = 7.6 Hz, H_a oder

H_d), 8.69 (d, 2H, J = 8.0 Hz, H_3), 8.41 (m, 1H, H_c), 8.19 (m, 4H, $H_{6'}$ und $H_{c''}$), 7.98 (m, 4H, $H_{7'}$ und H_4), 7.89 (m, 1H, H_b), 7.76 (d, 2H, J = 6.4 Hz, $H_{a''}$), 7.51 (m, 4H, H_6 und $H_{b''}$), 7.17 (m, 2H, H_5) ppm.

^{13}C-{^{1}H}-NMR (100 MHz, DMSO, 300 K): δ = 121.02, 124.29, 124.87, 125.62, 127.42, 127.74, 129.69, 130.79, 132.36, 135.10, 137.85, 138.44, 138.79, 146.55, 150.63, 152.10, 153.34, 153.79, 154.11, 155.07, 157.84, 166.89, 170.07 ppm.

Mass spectra (ESI): measured (top) and calculated (bottom) isotopic pattern of the [M-PF_6]-Peak of [(tbbpy)$_2$Ru(tptO)PdCl](PF$_6$)$_2$ **3**



Mass spectra (ESI): measured (top) and calculated (bottom) isotopic pattern of the [M-PF_6]-Peak of [$(tbbpy)_2Ru(tptO)PtCl](PF_6)_2$ **4**