

250 MHz): $\delta = 143.6, 137.5, 133.4, 129.7, 126.4, 120.0, 42.6, 37.7, 28.5, 27.2, 22.0, 21.7, 13.2, 9.1$. MS (FD, CHCl_3): $m/z = 813$ ($M^+ - 2$ 2-cha), 1629 [$2 \times (M^+ - 2$ 2-cha)].

Analytical Data for 2,3-NcRu(*t*-BuNC)₂ (7). Yield (method a): 540 mg (59%). Anal. Calc for $\text{C}_{58}\text{H}_{42}\text{N}_{10}\text{Ru}$ ($M_r = 980.2$): C, 71.1; H, 4.2; N, 14.3. Found: C, 70.8; H, 4.3; N, 12.9. IR (KBr): $\nu = 3051$ w, 2977 w, 2138 vs, 1492 s, 1371 vs, 1352 s, 1338 s, 1259 w, 1234 w, 1200 m, 1159 s, 1128 s, 1103 vs, 1016 m, 885 m, 758 s, 737 m, 714 cm^{-1} . UV/vis (CHCl_3): $\lambda_{\text{max}} = 714, 684$ sh, 641, 325 nm. $^1\text{H-NMR}$ (CDCl_3 , 250 MHz): $\delta = 9.73$ (s, 8H), 8.53 (m, 8H), 7.81 (m, 8H), -0.39 (s, 18H). MS (FD, CHCl_3): $m/z = 813$ ($M^+ - 2t$ -BuNC), 1628 [$2 \times (M^+ - 2t$ -BuNC)].

(2,3-Naphthalocyaninato)ruthenium(II) (8). 2,3-NcRu(3-Clpy)₂ (5) (200 mg, 0.19 mmol) and 2,3-NcRu(2-cha)₂ (6) (200 mg, 0.19 mmol) respectively was heated under vacuum (0.01 Torr) at 200 °C for 6 h. After cooling, the product was extracted with CHCl_3 in a Soxhlet apparatus until the solvent was colorless. The residue was dried (100 °C, 0.01 Torr) to afford pure 2,3-NcRu(II). Yield: 110 mg (71%). Anal. Calc for $\text{C}_{48}\text{H}_{24}\text{N}_8\text{Ru}$ ($M_r = 813.9$): C, 70.8; H, 3.0; N, 13.7. Found: C, 69.0; H, 3.1; N, 13.5. IR (KBr): $\nu = 3053$ w, 1627 m, 1609 m, 1591 m, 1508 s, 1466 s, 1447 vs, 1371 s, 1340 vs, 1315 vs, 1277 m, 1161 m, 1144 m, 1130 s, 1107 s, 1038 m, 1016 m, 949 w, 889 m, 762 vs, 716 cm^{-1} . UV/vis (H_2SO_4): $\lambda_{\text{max}} = 853, 305, 235$ nm. $^{13}\text{C-CP/MAS-NMR}$ (reference glycine, $\delta_{\text{COOH}} = 176.03$ ppm): $\delta = 129.5$; NQS 131.9, 122.2 ppm. MS (FAB): $m/z = 814, M^+$.

Bis(pyrazine)(2,3-naphthalocyaninato)ruthenium(II) (9). 2,3-NcRu^{II} was dissolved in a mixture of pyrazine (1 g) of 10 mL of chloroform at 50 °C. After 4 h, the chloroform was distilled off and the excess ligand was removed by extraction with *n*-hexane in a Soxhlet apparatus over 2 d. NcRu(py₂)₂ was purified by column chromatography (silica gel/ CHCl_3) and dried (80 °C, 0.01 Torr). Yield: 158 mg (54%). Anal. Calc for $\text{C}_{56}\text{H}_{32}\text{N}_{12}\text{Ru}$ ($M_r = 974.0$): C, 69.1, H, 3.3; N, 17.3. Found: C, 69.4; H, 4.0; N, 15.6. IR (KBr): $\nu = 3049$ w, 1538 m, 1504 m, 1493

s, 1416 m, 1371 vs, 1354 vs, 1339 s, 1261 w, 1200 m, 1163 s, 1130 vs, 1107 vs, 1036 m, 1016 m, 953 vw, 889 m, 871 m, 806 w, 760 s, 739 m, 714 cm^{-1} . UV/vis (CHCl_3): $\lambda_{\text{max}} = 721, 690$ sh, 646, 416, 322 nm. $^1\text{H-NMR}$ (CDCl_3 , 250 MHz): $\delta = 9.74$ (s, 8H), 8.48 (m, 8H), 7.77 (m, 8H), 6.55 (d, $J = 4.4$ Hz, 4H), 2.78 (d, $J = 4.4$ Hz, 4H). MS (FD, CHCl_3): $m/z = 813$ ($M^+ - 2\text{pyz}$), 1630 [$2 \times (M^+ - 2\text{pyz})$].

(μ -Pyrazine)(naphthalocyaninato)ruthenium(II) (10). 2,3-NcRu-(py₂)₂ (9) (100 mg, 0.1 mmol) was heated under a nitrogen stream slowly to 230 °C. The temperature was kept for 2 h. After cooling, the residue was washed with CHCl_3 and dried (80 °C, 0.01 Torr). Yield: 67 mg (73%). Anal. Calc for $\text{C}_{52}\text{H}_{28}\text{N}_{10}\text{Ru}$: C, 69.9; H, 3.1; N, 15.7. Found: C, 67.4; H, 2.9; N, 14.5. IR (KBr): $\nu = 3049$ w, 1582 w, 1504 w, 1489 m, 1441 w, 1416 w, 1371 s, 1330 vs, 1261 w, 1200 w, 1161 m, 1130 s, 1107 vs, 1036 m, 1016 m, 950 w, 887 m, 869 m, 806 w, 758 s, 736 w, 714 cm^{-1} . UV/vis (flourolube): $\lambda_{\text{max}} = 740, 670$ sh, 420, 330 nm. $^{13}\text{C-CP/MAS-NMR}$ (reference glycine, $\delta_{\text{COOH}} = 176.03$ ppm): $\delta = 143.1, 130.3, 125.9$ sh, 120.1; NQS 142.6, 132.8 ppm. MS (FAB): $m/z = 814, M^+ - \text{pyz}$.

(μ -Tetrazine)(naphthalocyaninato)ruthenium(II) (11). 2,3-NcRu^{II} (8) (162 mg, 0.2 mmol) and tetrazine (18 mg, 0.22 mmol) were stirred in 3 mL of CHCl_3 for 1 d. The product was filtered off, extracted with CHCl_3 , and dried (80 °C, 0.01 Torr). Yield: 150 mg (84%). Anal. Calc for $\text{C}_{50}\text{H}_{26}\text{N}_{12}\text{Ru}$: C, 67.0; H, 2.9; N, 18.8. Found: C, 65.0, H, 3.4; N, 17.0. IR (KBr): $\nu = 3051$ w, 1593 w, 1493 m, 1429 w, 1371 s, 1337 vs, 1263 w, 1200 w, 1161 m, 1130 s, 1105 vs, 1038 m, 1016 w, 953 w, 889 m, 758 s, 735 m, 714 cm^{-1} . UV/vis (flourolube): $\lambda_{\text{max}} = 1650$ – $950, 740, 665$ sh, 400 sh, 330 nm. $^{13}\text{C-CP/MAS-NMR}$ (reference glycine, $\delta_{\text{COOH}} = 176.03$ ppm): $\delta = 147, 128.9$; NQS 132.9, 142.0 ppm. MS (FAB): $m/z = 814, M^+ - \text{tz}$.

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Additions and Corrections

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M. H. Chisholm,* Ivan P. Parkin, William E. Streib, and O. Eisenstein[†]: Tungsten(6+) Tris(pinacolate): Structure and Comments on the Preference for an Octahedral Geometry Relative to Trigonal Prismatic (D_{3h}) for a d^0 Complex in the Presence of Strong π -Donor Ligands.

Pages 812–815. It has been brought to our attention that the title compound had been previously reported¹ as the ultimate product of the reaction between $(\eta^2\text{-C}_2\text{Ph}_2)\text{W}(\text{O-}i\text{-Bu})_4$ and pinacol. Furthermore, in this communication the authors inferred from spectroscopic data that the compound was chiral and did not racemize on the ^1H NMR time scale. The molybdenum analogue has also been prepared and the crystal and molecular structure of the glycolate $\text{Mo}(\text{OCH}_2\text{CH}_2\text{O})_3$ reported.²

(1) Theopold, K. H.; Holmes, S. J.; Schrock, R. R. *Angew. Chem., Int. Ed. Engl.* 1983, 22, 1010.

(2) Bath, S.; Wocadlo, S.; Neumüller, B.; Weller, F.; Dehnicke, K. Z. *Naturforsch.* 1992, 47B, 706.