

Übergangsmetallkomplexe mit Nitroxidradikalen: Palladium-, Platin-, Pentamethylcyclopentadienyl-rhodium- und -iridium-Komplexe sowie α -Aminocarboxylatkomplexe mit Donor-haltigen Derivaten des 2,5-Dihydroimidazol-1-oxyls

Transition Metal Complexes of Nitroxide Radicals. Palladium, Platinum, Pentamethylcyclopentadienyl Rhodium and Iridium Complexes, and α -Aminocarboxylate Complexes with Derivatives of 2,5-Dihydroimidazole-1-oxyls

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Herrn Professor Achim Müller zum 60. Geburtstag gewidmet

Z. Naturforsch. **53 b**, 101–109 (1998); eingegangen am 4. September 1997

Nitroxide Radicals, 2,5-Dihydroimidazole-1-oxyls, Transition Metal Complexes

2,5-Dihydroimidazoline-1-oxyl radicals **I**, **II** with imino substituents coordinate to Pd(II) and Pt(II) complexes with formation of the N,N chelate complexes **1** - **6**. With oxygen containing substituents either monodentate N-coordination to give **8** or N,O chelate formation to give **9** takes place, depending on the position of the oxygen atom relative to the ring nitrogen atom. With radicals **III** that also have the second ring nitrogen atom oxidized and the Rh(III) or Ir(III) complexes [Cp* MCl_2]₂ the O,O chelates **11** - **13** could be obtained, while with Na₂PdCl₄ the heterocycle was destroyed with formation of a N,N chelate complex **10** of an α -nitroso-oxime ligand. The orthopalladated 2,2,5,5 tetramethyl-4-phenyl-2,5-dihydroimidazoline-1-oxyl complex **7a** reacts with several α -amino acidates under splitting of the dichloro bridge with formation of the C,N/N,O-bis-chelate complexes **7b-f**. The molecular structures of **2** and **10** were determined by X-ray diffraction.

* Sonderdruckanforderungen an Prof. Dr. W. Beck.