

The Synthesis of Carboxy- and Cyano-substituted 4*H*-Imidazoles: Redoxactive Ligands as Starting Materials for Metal-Metal Multiply Bonded Compounds and Heterobimetallic Complexes

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Dedicated to Professor Gerhard Maas on the occasion of his 60th birthday

Cyanobenzoic acids proved to be suitable starting materials for the transformation into multifunctional products of the 4*H*-imidazole type. Employing two different pathways, the new derivatives **1b–d** which possess carboxy/cyano groups were synthesized. In addition, derivative **1d** formed the basis for the construction of novel *bis*-4*H*-imidazoles with two different complexation spheres. The structures of all new derivatives were confirmed by NMR spectroscopy, mass spectrometry, elemental analysis, UV/Vis-/fluorescence spectroscopy, and electrochemical measurements.

Key words: 4*H*-Imidazoles, Nitriles, Benzoic Acids, Ligands, Functional Dyes