Cobalt in three oxidation states and novel approaches to {CoNO} hydride complexes

Jan Pecak,^a Berthold Stöger,^b and Karl Kirchner^a

 ^a Institute of Applied Synthetic Chemistry, Vienna University of Technology, Getreidemarkt 9/163-AC, A-1060 Wien, Austria
^b X-Ray Centre, Vienna University of Technology, Getreidemarkt 9, A-1060 Wien, Austria

The non-innocence behavior of NO coordinated to a metal center allows for a unique flexibility and variety in the oxidation state of this metal. Tridentate, phosphine-based PCP pincer ligands offer all advantages for stabilizing such systems. This work is dedicated to the synthesis of Co(I), Co(II) and Co(III) complexes and hydride derivates thereof as well as catalytic application.

