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46 Pd 106.42 78 10 mVs⁻¹ 50 mVs⁻¹ 100 mVs⁻¹ 200 mVs (Me₂-cAAC)₂Pt⁺ - e 1 + e -0,4 -0,2 0,0 0,2 E vs Cp Fe/Cp Fe [V] 195.08

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π -Accepting cyclic alkyl(amino) carbenes (cAACs) ...

... react with tetrakis(triphenylphosphine)palladium(0) and the corresponding platinum(0) precursor to form [(cAAC)₂Pd] and [(cAAC)₂Pt] complexes, with two-coordinate Pd and Pt, respectively, as presented by H. W. Roesky et al. in their Communication on page 9312 ff. The new complexes are characterized by NMR spectroscopy, mass spectrometry and X-ray crystallography. Both Pd and Pt complexes are shown by cyclic voltammetry to undergo reversible one-electron oxidation to produce [(cAAC)₂Pd]⁺ and [(cAAC)₂Pt]⁺. Interestingly, [(cAAC)₂Pd] exhibits crystallochromism, changing color from dark maroon to bright green via bending of the C-Pd-C bond angle from 172.75(6)° to 166.94°.

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