

Cobaltoceniumselenide coordination chemistry

Daniel Menia, Michael Pittracher, Holger Kopacka, Klaus Wurst, and Benno Bildstein

Institute of General, Inorganic and Theoretical Chemistry, University of Innsbruck,
6020 Innsbruck, Austria

In recent work we have shown that the selenium derivative (CcC-Se) of the novel mesoionic carbene cobaltocenylidene (CcC) can be generated by nucleophilic aromatic substitution of iodocobaltocenium salts [1] with sodium selenide [2]. This zwitterionic cobaltoceniumselenide (or cobaltoceniumselenolate) is an unusual new redox-active ligand with quite interesting coordination chemistry. Selected late transition metal complexes of CcC-Se (Figure 1) will be presented and spectroscopic and structural data will be discussed.

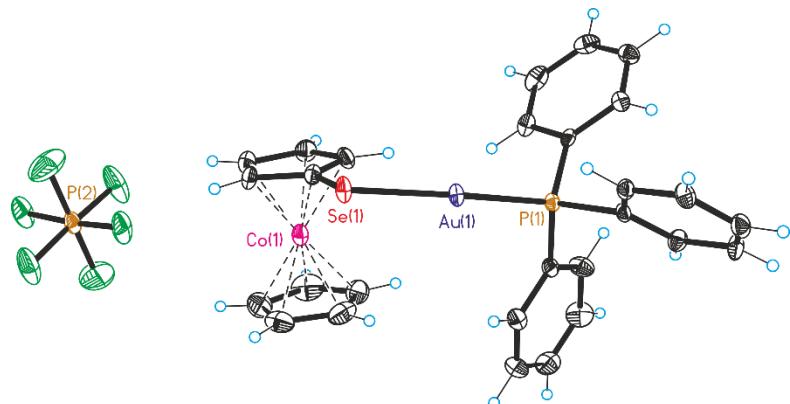


Figure 1. Molecular structure of $[\text{CcC-Se}]\text{Au}[\text{P}(\text{C}_6\text{H}_5)_3]\text{PF}_6$

[1] Vanicek, S.; Kopacka, H.; Wurst, K.; Müller, T.; Hassenrück, C.; Winter, R. F.; Bildstein, B.; *Organometallics* **2016**, *35*, 2101–2109.

[2] Vanicek, S.; Podewitz, M.; Hassenrück, C.; Pittracher, M.; Kopacka, H.; Wurst, K.; Müller, T.; Liedl, K. R.; Winter, R. F.; Bildstein, B.; *Chem. Eur. J.* **2018**, *24*, 3165–3169.