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### The Magic of Polypnictogen Compounds

Organometallic polypnictogen compounds are an important class of compounds, valuable for many applications. Our interest is dedicated to pnictogen-rich organometallics, which usually can be synthesized from the  $E_4$  allotropes ( $E = P, As$ ). Therefore, we have developed special approaches for the activation of the  $E_4$  molecules. In addition, we created novel  $E_4$ -transfer reagents to avoid the handling hazardous starting materials. The talk will give an overview about the latest developments in this area<sup>[1]</sup> and the stage of the use of the transfer reagents in main group and transition metal chemistry.

Moreover, pentaphosphaferrocene,  $[Cp^*Fe(\eta^5-P_5)]$ , the P-rich congener of ferrocene, can be used as a starting material in different directions: (i) in redox-processes where charged anionic and cationic polyphosphorus moieties are obtained,<sup>[2]</sup> (ii) in the reaction with Cu(I) halides where nano-sized inorganic fullerene-like molecules are formed (Figure 1).<sup>[3]</sup>

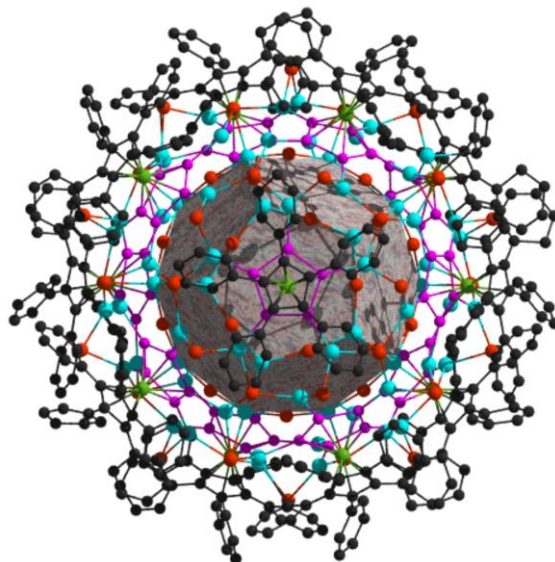


Figure 1. Molecular structure of an organometallic supersphere.

#### References

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