



Preface

The renaissance of organometallic chemistry in the 1950s was driven by the discovery of the archetypal complex ferrocene with its π -donor cyclopentadienyl ligands and their arene-like chemistry, the anniversary of which has been celebrated recently in this journal [1]. Complexes with σ -donor organic ligands have also been the subject of considerable attention over the past half century, compounds with alkyl groups in particular featuring in industrially-important catalytic transformations, and consequently the subject of much detailed mechanistic and reaction chemistry. Metal acetylide complexes are important organometallic compounds with σ -donor unsaturated organic ligands, the first examples of which were prepared in the 1950s [2]. The study of metal acetylide complexes has gained momentum in recent years due not only to interest in the basic chemistry of these complexes and their potential applications in well-established areas such as homogeneous catalysis, but also in recently-explored fields such as nonlinear optics, conducting materials, and artificial light-harvesting chromophores. The heightened interest

in metal acetylide chemistry and physics makes it particularly apropos to provide a snap-shot of the field and, with this in mind, leading experts in metal acetylide chemistry were invited to contribute to this Special Issue. I thank them all for their valued contributions which, it is hoped, will stimulate further study in this burgeoning area of research.

References

- [1] R.D. Adams, *J. Organomet. Chem.* 637–639 (2001) 1.
- [2] R. Nast, *Angew. Chem.* 72 (1960) 26.

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