



## Foreword

# Foreword to special issue on “Chirality in Organometallic Chemistry: New Ligands, New Complexes and New Applications”

Chirality plays a key role in many interesting aspects of chemistry. The simplest physical property is the ability of enantiomeric molecules to rotate plane polarized light in opposite directions. More important to chemistry is the fact that enantiomeric molecules react with other chiral molecules at intrinsically different rates. This can be important to human metabolism since human proteins are composed of *l*-amino acids. For example, chiral drugs may exhibit significantly different activities and thus different effectiveness. Thus, drug manufacturers strive to achieve the highest enantiomeric purity of the most active form of a drug before bringing it to market. Enantiomerically pure polymers often exhibit superior physical properties to those of their less pure counterparts. Great strides have been made in recent years in achieving levels of enantiomeric purity in organic synthesis. Performing catalysis with enantiomeric control can be of even greater value when done on large scales. For their contributions to developing “chirally catalyzed reactions”, William S. Knowles, Ryoji

Noyori, K. Barry Sharpless were awarded the 2001 Nobel Prize in Chemistry. Organometallic chemistry plays a key role in most examples of metal-based catalytic reactions. To bring focus on some of the latest developments in research in this important field, I have organized this volume of the *Journal of Organometallic Chemistry* titled “Chirality in Organometallic Chemistry: New Ligands, New Complexes and New Applications”. It is hoped that the results contained herein will promote a greater awareness of this important field and will stimulate new directions of future research.

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