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Editor's Page

As he notes in the introduction of his review in this issue of *Organometallics*, Professor Douglas W. Stephan of the University of Windsor wanted to develop a catalyst for the polymerization of ethylene and α -olefins that was highly active and sufficiently robust to be effective under "industrial" operating temperatures in the range of 70–160 °C. Since the end goal was a practical and, hopefully, an industrially useful application, this catalyst system should not be covered in anyone else's prior patent. How Professor Stephan's well-conceived ligand and catalyst system design strategies led him to phosphinimide complexes of titanium and zirconium and how his research developed with great success are revealed in this fascinating review. It provides an instructive account of how basic research (the synthesis and thorough characterization of the ligands and complexes) and concurrent developmental work (catalyst screening, kinetic studies, cocatalyst evaluation), when effectively coordinated, can lead to the successful realization of the desired goal. With the current funding situation for research in organometallic chemistry as it is in many countries, such basic/applied research programs have become common. Notable applications are in areas such as catalysis (polymerization and organic synthesis), materials science, biology, and medicine. Professor Stephan's program, carried out in collaboration with researchers at the NOVA Chemicals Corporation, is an excellent example of this approach. It is one in which there has been a good balance between the basic and the applied, and this provides the makings for good papers in *Organometallics*.

The molecule on the cover is one of Professor Stephan's active ethylene polymerization catalysts, bis(tri-*tert*-butylphosphinimide)titanium dichloride, [(*t*-C₄H₉)₃P=N]₂TiCl₂ (Ti, red; N, blue; P, orange-yellow; Cl, green; C, black), whose preparation and X-ray crystal structure were described in a communication, "Remarkably Active Non-Metallocene Ethylene Polymerization Catalysts" (*Organometallics* **1999**, *18*, 2046) by Professor Stephan and co-workers.

The cover figure was kindly provided by Professor Stephan.

Dietmar Seyferth
Editor

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