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### Special Issue: The Inaugural Metallocene Catalysis Symposium

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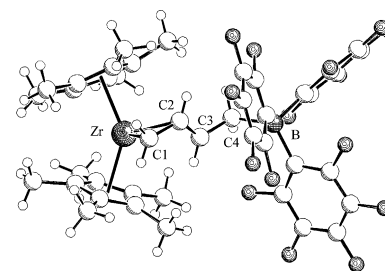
### Regular papers

**Gerhard Erker, Gerald Kehr, Roland Fröhlich**

*J. Organomet. Chem.* 690 (2005) 6254

The (butadiene)zirconocene route to active homogeneous olefin polymerization catalysts

(Butadiene)zirconocene and related compounds add a variety of electrophiles to the terminal diene carbon atom. The addition of  $B(C_6F_5)_3$  yield zwitterionic metallocene/boron systems that have served as homogeneous olefin polymerization catalysts without the need of further activation. These betaine systems were useful for mechanistic investigations.

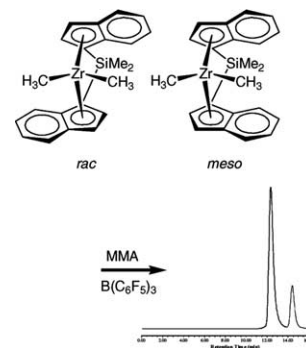


**Yalan Ning, Megan J. Cooney, Eugene Y.-X. Chen**

*J. Organomet. Chem.* 690 (2005) 6263

Polymerization of MMA by oscillating zirconocene catalysts, diastereomeric zirconocene mixtures, and diastereospecific metallocene pairs

MMA polymerizations using oscillating zirconocene catalysts, mixtures of *rac*- and *meso*-zirconocene diastereomers, as well as diastereospecific metallocene pairs, produce PMMA with unexpected stereomicrostructures.

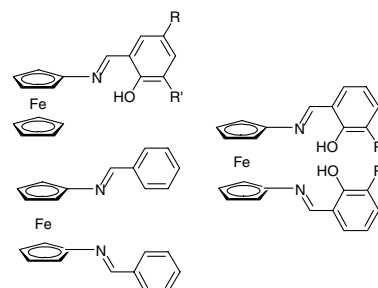


**Vernon C. Gibson, Charlotte K.A. Gregson, Catherine M. Halliwell, Nicholas J. Long, Philip J. Oxford, Andrew J.P. White, David J. Williams**

*J. Organomet. Chem.* 690 (2005) 6271

The synthesis, coordination chemistry and ethylene polymerisation activity of ferrocenediyl nitrogen-substituted ligands and their metal complexes

A range of ferrocene-substituted salicylaldimine, salen and bis(imine) ligands has been prepared and characterised. The new ligands have been coordinated to a range of transition metal centres, such as Ni, Cr, Ti and Pd, and some of these complexes possess catalytic activity towards ethylene polymerisation.

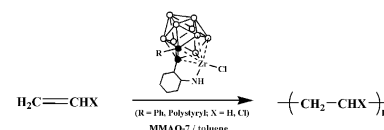


**Zhu Yinghuai, Shirley Lo Pei Sia, Fethi Kooli, Keith Carpenter, Richard A. Kemp**

*J. Organomet. Chem.* 690 (2005) 6284

Another example of carborane based trianionic ligand: Syntheses and catalytic activities of cyclohexylamino tailed *ortho*-carboranyl zirconium and titanium dicarbollides

$C_{10}(\text{Cage})$ -substituted cyclohexylamino-carborane trianionic ligand coordinated Zr and Ti complexes and polymer supported analogues were synthesized and structurally investigated by NMR, IR spectroscopy, and, in the case of polymer supported compounds, by DSC–TGA analysis. The polymerization of vinyl chloride and ethylene catalyzed by the new complexes is discussed.

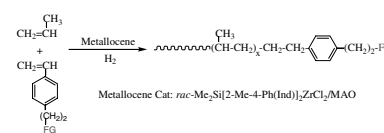


**T.C. Chung**

*J. Organomet. Chem.* 690 (2005) 6292

Metallocene-mediated synthesis of chain-end functionalized polypropylene and application in PP/clay nanocomposites

Chain end functionalized polypropylene polymers having a terminal functional group, such as Cl, OH, and  $\text{NH}_2$ , have been prepared by a combination of metallocene catalyst and functional chain transfer agents in the presence of hydrogen. Despite the extremely low concentration of functional group, the chain end functionalized PP polymers show excellent surface activity in forming exfoliated PP/clay nanocomposites.

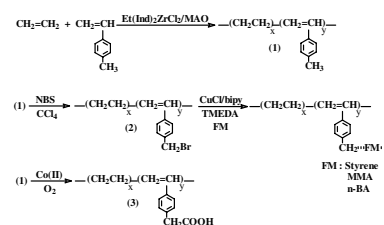


**Jyh-Ming Hwu, Ming-Jen Chang, Jui-Chi Lin, Hsiu-Yu Cheng, George-J Jiang**

*J. Organomet. Chem.* 690 (2005) 6300

Synthesis and application of functional polyethylene graft copolymers by atom transfer radical polymerization

This investigation attempts to elucidate the copolymerization reaction ethylene and *p*-methylstyrene (MS) via the homogeneous metallocene catalyst,  $\text{Et}(\text{Ind})_2\text{ZrCl}_2$ . With increasing of *p*-methylstyrene concentration, the poly(ethylene-*co-p*-methylstyrene) copolymer shows systematical decrease of melting temperature and crystallinity and increase of glass transition temperature. With the bromination reaction of poly(ethylene-*co-p*-methylstyrene), polyethylene graft copolymers can be prepared via atomic transfer radical polymerization.

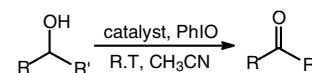


**Qiao-xiang Kang, Ju-jie Luo, Yan-bin Bai, Zhi-wang Yang, Zi-qiang Lei**

*J. Organomet. Chem.* 690 (2005) 6309

Catalytic oxidation of alcohols with polymer-supported ruthenium complex under mild conditions

Catalytic oxidation of primary aliphatic alcohols and aromatic alcohols in the presence of iodosylbenzene (PhIO) by the polymer-supported ruthenium complex PS–Phen–Ru gives the corresponding aldehydes or ketones with high substrate conversion and selectivity.



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