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Education

Ph.D., Organic Chemistry 7/1999–7/2002

Dalian Univeristy of Technology, Dalian, China

Thesis: Nonaqueous two-phase hydroformylation of oleyl alcohol

Abstract of Thesis: Since *RCH-RP* aqueous two-phase hydroformylation of propelene was realized industrially, much effort was devoted to solve the low solubility of higher olefin on this two-phase catalysis. In my work, I found a novel type of ionic liquid (IL) based on polyether modified quarternary ammonia. I successfully realized the two-phase hydroformylation of oleyl alcohol based on Rh-TPPTS system.

Advisor: Dr. Zhilin Jin

M.S., Organic Chemistry 7/1992–7/1995

Dalian Univeristy of Technology, Dalian, China

Thesis: Carbonylation and double-carbonylation of benzyl chloride

Abstract of Thesis: In this work, the carbonylation of benzyl chloride was systematically investigated. I found a better reaction condition for benzene acetic acid.

Advisor: Dr. Zhilin Jin

B.S., Applied Chemistry 7/1988–7/1992

Dalian Univeristy of Technology, Dalian, China

Thesis: Synthesis of tri(o-hydroxyphenyl)phosphine

Abstract of Thesis: In this work, five step of synthesis of tri(o-hydroxyphenyl)phosphine was finished according to published methods.

Advisor: Dr. Zhilin Jin

Work Experience

Postdoctoral Researcher, Takahashi Laboratory 10/2004–Present

Catalysis Research Center

Hokkaido University, Sapporo, Japan

- Carbon-carbon bond activation of inert ligand in organotransition metal chemistry
- Novel synthesis method of pentacene derivatives and its application in material chemistry

Postdoctoral Researcher, Xi and Takahashi Laboratory 10/2002–10/2004

Department of Organic Chemistry

Peking University, Peking, China

- Carbon-carbon bond activation of Cp ring in titanacyclopentadiene

Process Researcher

7/1995–7/1999

Shenyang Dongyu Chemical Group, Shenyang, China

- Take part in building five pilot plants in China

Publications

- **Kong, F.**; Kuzuba, Y.; Xi, Z.; Takahashi, T. Reaction of bis(cyclopentadienyl) titanacyclopentadiene with alkyne. *Pacificchem*, Hawaii, 2005, Dec.
- Takahashi, T.; Xi, Z.; **Kong, F.** Method for preparation of indene derivatives by cycloaddition reaction of acetylene derivatives. *Jpn. Kokai Tokkyo Koho* 2005. JP 2005247717.
- Takahashi, T.; Kuzuba, Y.; **Kong, F.**; Nakajima, K.; Xi, Z. Formation of Indene Derivatives from Bis(cyclopentadienyl)titanacyclopentadienes with Alkyl Group Migration via Carbon-Carbon Bond Cleavage. *J. Am. Chem. Soc.* 2005, *127*(49), 17188-17189.
- Xi, Z.; Zhang, W.; Song, Z.; Zheng, W.; **Kong, F.**; Takahashi, T. Preparation of Vinyl Allenes from 1-lithio-1,3-dienyl phosphine Oxides and Aldehydes by the Wittig-Horner Reaction. *J. Org. Chem.* 2005, *70*(22), 8785-8789.
- **Kong, F.**; Jiang, J.; Jin, Z. Ammonium salts with polyether-tail: New ionic liquids for rhodium catalyzed two-phase hydroformylation of 1-tetradecene. *Catalysis letter* 2004, *96*(1-2), 63-65.
- Liu, X.; **Kong, F.**; Zheng, X.; Jin, Z. Polyether triaryl phosphine oxides for hydroformylation of oleyl alcohol in micellar catalysis *Catalysis Communications* 2003, *4*(3), 129-133.
- Liu, X.; Li, H.; **Kong, F.** Polyether phosphine oxide induced phase separable homogeneous catalysis for hydroformylation of higher olefins. *J. Organomet. Chem.* 2002, *664*(1-2), 1-4.
- **Kong, F.**; Jiang, J.; Jin, Z. Hydroformylation of unsaturated fatty chemicals and its industrial application. *Huagong Jinzhan* 2001, *20*(12), 39-42.
- Zhou, L.; Wang, H.; Xi, C.; **Kong, F.**; Takahashi, T. One-pot formation of acid anhydride compound from zirconacyclopentadiene and fumaric acid anhydride *Bulletin Chemical Society of Japan*. Accepted.
- Takahashi, T.; Li, S.; Huang, W.; **Kong, F.**; Nakajima, K.; Shen, B.; Ohe, K.; Kanno, K. Homologation method for preparation of substituted pentacenes and naphthacenes *J. Am. Chem. Soc.* In progress.
- Guo, H.; **Kong, F.**; Kanno, K.; Nakajima, K.; Takahashi, T. Cross-coupling of aryl fluoride with phenethyl grignard reagent together with the rearrangement of the phenethyl group. *Organometallic*. **2006**, *25*(8), 2045-2048.

Three References address.

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- 2, Prof. Dr. Zhenfeng Xi, Organic chemist, Organic chemistry department, Peking University, China, e-mail: zfxi@pku.edu.cn
- 3, Prof. Dr. Tamotsu Takahashi, Organic chemist, Catalysis research center, Hokkaido University, Japan, e-mail: tamotsu@cat.hokudai.ac.jp