Synthesis Interview

SYNTHESIS Welcomes New Editorial Board Member Professor Hongli Bao (Fujian Institute of Research on the Structure of Matter, P. R. of China)

As of January 1, 2022, Professor Hongli Bao from the **Fujian Institute of Research on the Structure of Matter (P. R. of China)** will join the Editorial Board of SYNTHESIS as responsible Regional Editor for the Chinese Mainland, Taiwan, Hong Kong and Macau.



Hongli Bao received her B.S. degree in chemistry from the University of Science & Technology of China (Hefei, P. R. of China) in 2002. She obtained her Ph.D. from the joint program of the Shanghai Institute of Organic Chemistry (P. R. of China) and the University of Science & Technology of China in 2008 with Professor Kuiling Ding and Professor Tianpa You. She then joined the lab of Uttam Tambar at UT Southwestern Medical Center (Dallas, USA) in 2009 for postdoctoral research. In 2014, she started her independent career at the Fujian Institute of Research on the Structure of Matter, CAS, in Fuzhou (P. R. of China). She is interested in developing new metal-catalyzed reactions and asymmetric catalysis. Her research laboratory focuses on the studies of peroxides with respect to different activation models and reactivities.

INTERVIEW

SYNTHESIS Could you give us a brief introduction of yourself?

Prof. Bao Hongli I am Hongli Bao, a group leader and Professor from Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences. Our group is working on organic synthesis and asymmetric outer-sphere radical reactions. We are also interested in the chemistry of polymers and materials.

SYNTHESIS What is the most important part of your research?

Prof. Bao Hongli We have systematically studied the reactivities of alkyl peroxides and their catalytic cracking modes. Complementary to classic alkyl electrophiles, organic peroxides were found to be masked (nucleophilic) alkyl electrophiles serving in several unique reactions in the presence of metal catalysts.

Recently, we have developed several asymmetric outer-sphere radical reactions which allow the construction of chiral $C-N_3$, C-O and C-CN bonds directly on carbon-centered radicals. In the absence of covalent, dative, ionic or hydrogen bonds — that are commonly used for recognition and stereocontrol in previous studies - van der Waals, π and secondary orbital interactions are supposed to be key factors in catalyst design and stereocontrol. These works expand the study of asymmetric radical reactions to a broader field in which substrates can be employed without prior modification.

SYNTHESIS In the past five years, what has changed in your career?

Prof. Bao Hongli As a member of the Chinese Academy of Sciences, I find that it has become our new research focus to solve the practical problems of real life and study deeply the scientific issues that no one else can. This change has raised new challenges for us.

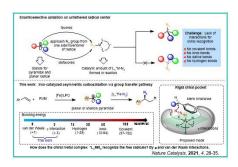
SYNTHESIS Who are the best examples in your career?

Prof. Bao Hongli My role-model is my PhD advisor Prof. Kuiling Ding, who taught me "rightful innovation".

SYNTHESIS A few words to describe your research and life.

Prof. Bao Hongli Busy and full of surprises.

SYNTHESIS A picture highlighting your very recent research.



SYNTHESIS What are your perspectives and expectations for joining the editorial team of Synthesis?

Prof. Bao Hongli I hope SYNTHESIS will publish more and more wonderful scientific research achievements from the worldwide scientific community and will becomes a journal preferred by the readership, with wider coverage and greater influence.

The editorial team consists of great chemists. I am very happy and honored to be one of them. Meanwhile I hope I can be a better chemist in the journey with SYNTHESIS.

SYNTHESIS What advice would you give to PhD students and young chemists who just start independent research about how to handle stress and pressure?

Prof. Bao Hongli As long as you don't give up, you have the opportunity to create miracles in a flask! This is the unique power of organic chemistry.

SYNTHESIS Do you have anything for our authors and readers?

Prof. Bao Hongli Thank you for your support and look forward to witnessing great chemistry with you.

SYNTHESIS One sentence for Synthesis.

Prof. Bao Hongli You're unique, and irreplaceable.