Liebig-Lectureship

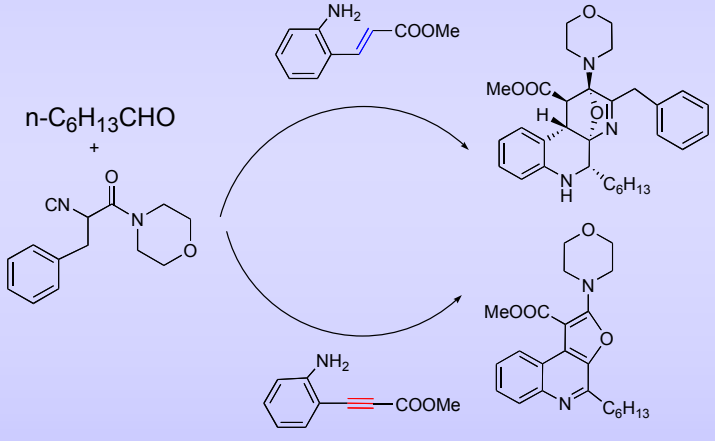
der Liebig-Vereinigung für Organische Chemie
in der Gesellschaft Deutscher Chemiker

10. - 17. Mai 2004

Dr. Jieping Zhu

CNRS Gif-sur-Yvette, France

Development of Novel Multicomponent Reactions for the Synthesis of Heterocycles and Macrocycles



The multicomponent reaction (MCR) is a process in which three or more reactants are combined in a single reaction vessel to produce a product that incorporates substantial portions of all the components. For its inherent convergence, high productivity, its exploratory and complexity-generating power, the MCR has recently become a popular synthetic methods in both diversity- and target-oriented syntheses. Since most of the MCRs were devised on the basis of known bimolecular reactions, a judicious combination of reactive functional groups within substrates is thus of fundamental importance. If poly-functionalized substrates were designed and programmed in such a way that merely mixing them together, they would react in a highly ordered and productive fashion to produce in high yield an interesting scaffold, then a novel MCR would be uncovered. Such a substrate-design approach in the development of novel MCRs will be the topic of the presentation.

Montag,	**10. Mai 2004, 17:15 Uhr**	Baeyer-Hörsaal im Department Chemie, **Ludwig-Maximilians-Universität München**
Dienstag,	**11. Mai 2004, 17:30 Uhr**	Hörsaal West, Im Neuenheimerfeld 252, **Universität Heidelberg**
Mittwoch,	**12. Mai 2004, 14:15 Uhr**	Hörsaal C, Fachbereich Chemie der **Universität Marburg**
Donnerstag,	**13. Mai 2004, 17:15 Uhr**	Hörsaal C2 im Hörsaalgebäude Chemie, **Universität Münster**
Freitag,	**14. Mai 2004, 11:15 Uhr**	OC-Hörsaal im Institut für Organische Chemie der **RWTH Aachen**
Montag,	**17. Mai 2004, 17:15 Uhr**	Windaus-Hörsaal der Fakultät Chemie, **Georg-August-Universität, Göttingen**

r. Zhu's research interests include the development of novel synthetic methods and their applications in the synthesis of bioactive natural products, especially acrocycles with endo aryl-aryl/aryl-alkyl ether and endo aryl-aryl bonds; design and synthesis of glycopeptide-like antibiotics aiming at reversing the vancomycin-sistant enterococci. In particular, his group developed an efficient cycloetherification methodology based on an intramolecular nucleophilic aromatic substitution reactio at has been applied to the synthesis of numerous complex natural products and compound libraries. Recent topics of activity include the design of novel ulticomponent reactions for the synthesis of polyheterocycles and macrocycles, transition-metal-catalyzed domino processes and total synthesis of complex trahydroisoquinoline containing alkaloids.

r. Zhu is a research director at Institut de Chimie des Substances Naturelles, CNRS, France. His work has been recognized with the award of the CNRS bronze meda rance, 1996), the French Chemical Society SFC-Across award (1999), the AstraZeneca Award in Organic Chemistry (UK, 2002), the Japan Society for Promotion of cience (JSPS) research fellow (2002), Prix EMILE JUNGFLEISCH" of the French Academy of Sciences (2003) and the National Science Foundation Outstanding You versea Scientist award (China, 2003).

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e Liebig-Vereinigung für Organische Chemie richtete 1999 eine Vortragsreihe – die Liebig-Lectureship – für herausragende junge ausländische Vertreter der ganischen Chemie ein. Diese Vorträge führen die damit Ausgezeichneten an einige Forschungsinstitute ihrer eigenen Wahl. Die vorherigen Inhaber der Liebig-