

VORTRAG IM RAHMEN DES SONDERFORSCHUNGSBEREICHS 623
DER UNIVERSITÄT HEIDELBERG
MOLEKULARE KATALYSATOREN: STRUKTUR UND FUNKTIONSDSIGN

Freitag, 21. Februar 2003, 11.15 Uhr
Organisch-Chemisches Institut, Im Neuenheimer Feld 270,
Erdgeschoss, Seminarraum 129

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**“Some Stereochemical and Kinetic Aspects of
Asymmetric Catalysis”**

Abstract:

Asymmetric transition metal catalysed processes continue to be developed at a staggering pace. Yet the bulk of these processes are discovered empirically rather than designed. However, the logical design of control elements for asymmetric catalytic reactions is dependent upon detailed knowledge of mechanism and often this is not available. The two topics covered in the lecture will relate to this latter issue. Firstly, an NMR-based study of an asymmetric Mo-catalysed process will be presented. The study has determined the overall stereochemical relationship between the racemic substrate and the highly enantioenriched product and also how an apparent “memory effect” is predominantly a catalyst activation process. The analysis of the stereochemistry is predominantly product-based and exploits quadrupolar deuterium coupling. In the second part of the presentation, a consideration of the kinetic aspects of Pd-catalysed allylic substitution will be discussed. It will be shown how this has led us to study the reactions of racemic catalysts, which under certain circumstances can reveal whether the enantiomerically pure form might be useful. We have now extended this process, with mixed success, to other catalysed reactions, both organic and organometallic based.

Gäste sind herzlich willkommen.

Bei Interesse an einem Gesprächstermin bitte melden im:
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DER SPRECHER
gez. P. Hofmann