

lädt ein

gemeinsam mit der Gesellschaft
Deutscher Chemiker
zum

Vortrag

von Herrn

**Prof. Nicolai
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**“Efficiency in
Catalyst Design for
Asymmetric
Catalysis:
Rationality,
Diversity,
Preditability...Luck”**

am: 22.10.2026
um: 17:00 Uhr
wo: im Raum A12.232

Gäste sind herzlich willkommen!



TECHNISCHE UNIVERSITÄT
IN DER KULTURHAUPTSTADT EUROPAS
CHEMNITZ

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**EFFICIENCY IN CATALYST DESIGN FOR ASYMMETRIC CATALYSIS:
 RATIONALITY, DIVERSITY, PREDICTABILITY...LUCK?**

Access to robust tailored chiral ligands is of critical importance for advances in homogenous enantioselective catalysis. The design and development of novel ligand libraries is often a time-consuming and often tedious trial-and-error process. We seek to identify new privileged chiral elements / scaffolds which could be rapidly adapted and used for a broad range of reaction types. Pairing the structural data of the chiral micro environments of the catalytically active sites with computational selectivity predictions sharpens the focus on the preparation of “high potential” catalyst candidates for the library. The presentation will cover recent examples of my laboratory.[1-4]

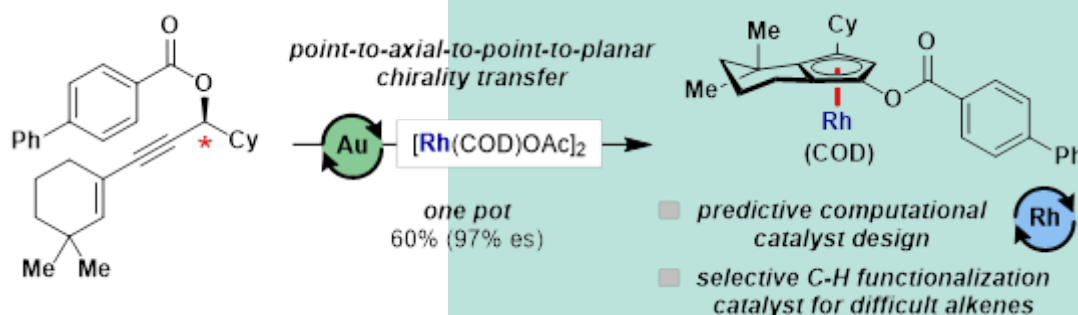


Figure 1. Streamlined access to Cp^x-metal catalysts

References:

- [1] B. Van Den Bossche, N. Cramer, *J. Am. Chem. Soc.* **2026**, *148*, 3775-3787.
- [2] Y.-X. Cao, A.-S. Chauvin, S. Tong, L. Alama, N. Cramer, *Nat. Catal.* **2025**, doi: 10.1038 /s41929-025-01352-3.
- [3] L. K. Verdhi, M. D. Wodrich, N. Cramer, *J. Am. Chem. Soc.* **2025**, *147*, 15041.
- [4] Y. S. Ye, A. Laverny, M. D. Wodrich, R. Laplaza, F. Fadaei-Tirani, R. Scopelliti, C. Corminboeuf, N. Cramer, *J. Am. Chem. Soc.* **2024**, *146*, 34786.