

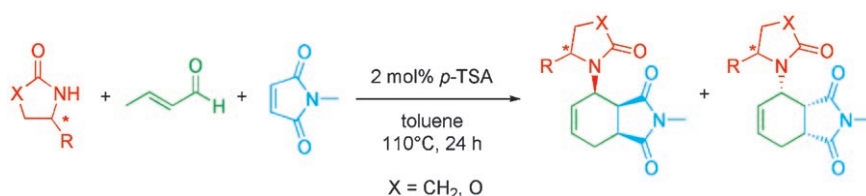
Multicomponent Reactions

S. Hübner, H. Jiao, D. Michalik,
H. Neumann, S. Klaus, D. Strübing,
A. Spannenberg, M. Beller*

In Situ Generation of Chiral *N*-Dienyl
Lactams in a Multicomponent Reaction:
An Efficient and Highly Selective Way to
Asymmetric Amidocyclohexenes

Chem. Asian J.

DOI: 10.1002/asia.200600428



Three amigos: The employment of chiral amides in combination with aldehydes and dienophiles in our novel multicomponent procedure allows the simple and efficient synthesis of amido-functionalized cyclohexene derivatives (see

scheme; *p*-TSA = *para*-toluenesulfonic acid). The multicomponent methodology circumvents the circuitous preparation of chiral *N*-dienyl lactams as they are generated in situ.

Polyketide Synthases

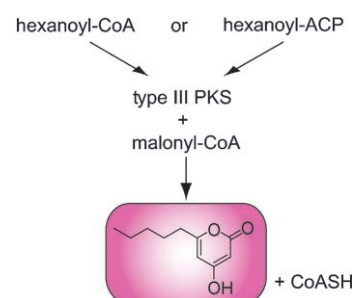
S. Grischow, T. J. Buchholz, W. Seufert,
J. S. Dordick, D. H. Sherman*

Substrate Profile Analysis and
ACP-Mediated Acyl Transfer in
Streptomyces coelicolor Type III Polyketide
Synthases

ChemBioChem

DOI: 10.1002/cbic.200700026

Protein partners. We report the biochemical characterization of two type III polyketide synthases (PKS) from *Streptomyces coelicolor*. Remarkably, germicidin synthase (Gcs)/SCO7221 was able to utilize both acyl-CoA and acyl-ACP as starter units for the production of pyrone containing compounds.



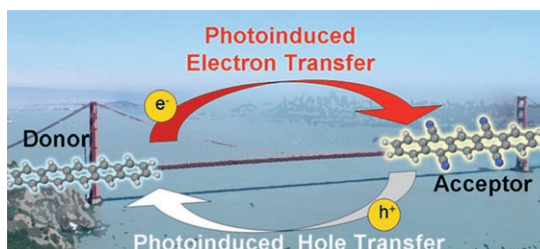
Electron Transfer

A. Van Vooren, V. Lemaire, A. Ye,
D. Beljonne, J. Cornil*

Impact of Bridging Units on the
Dynamics of Photoinduced Charge
Generation and Charge Recombination
in Donor–Acceptor Dyads

ChemPhysChem

DOI: 10.1002/cphc.200700130



Donor–bridge–acceptor architectures: The authors estimate, at a full quantum-chemical level, the various molecular parameters governing charge-transfer rates in model organic structures con-

taining a donor and an acceptor unit connected by a bridging unit (see picture). The nature, size, and conformation of the bridging unit have been systematically varied.

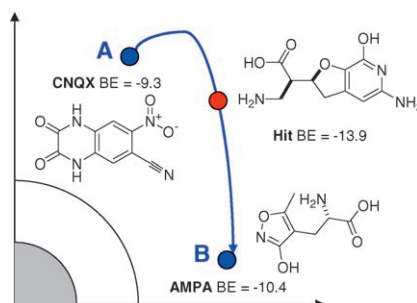
Cheminformatics

R. van Deursen, J.-L. Reymond

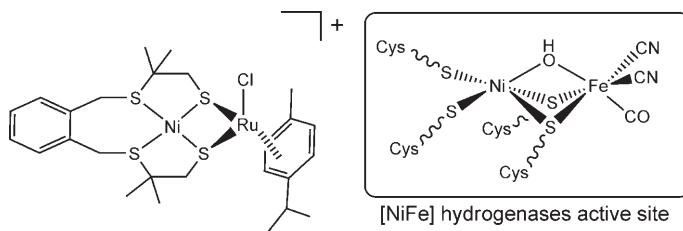
Chemical Space Travel

ChemMedChem

DOI: 10.1002/cmdc.200700021



Space the final frontier! Modern medicine depends on the discovery of new drugs however, detailed knowledge of all possible organic molecules is not available. To travel in this so-called chemical space and discover new compounds, we wrote a spaceship program combining a point mutation generator with a selection module for target similarity. Thus, allowing travel from a starting molecule A to a target molecule B through a continuum of structural mutations.



New dinuclear nickel-ruthenium catalysts for H_2 production that mimic the active site of [NiFe] hydrogenases are described. The activity of these new com-

plexes is explained by the existence of a cooperative effect between the metal centers and is further related to their electronic properties.

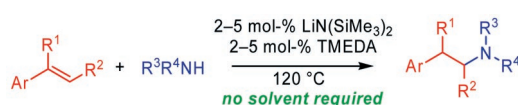
Hydrogenase Models

Y. Oudart, V. Artero,* J. Pécaut,
C. Lebrun, M. Fontecave

Dinuclear Nickel–Ruthenium Complexes
as Functional Bio-Inspired Models of
[NiFe] Hydrogenases

Eur. J. Inorg. Chem.

DOI: [10.1002/ejic.200700067](https://doi.org/10.1002/ejic.200700067)



$LiN(SiMe_3)_2$ /TMEDA is an efficient catalyst for the anti-Markovnikov addition of primary and secondary amines to vinylarenes. Reactions proceed readily at $120^\circ C$

in the absence of solvent. The mechanism of the lithium-catalyzed hydroamination and the influence of TMEDA was studied with DFT methods.

Hydroamination

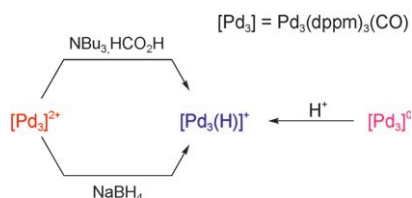
P. Horrillo-Martínez, K. C. Hultsch,*
A. Gil, V. Branchadell

Base-Catalyzed Anti-Markovnikov
Hydroamination of Vinylarenes – Scope,
Limitations and Computational Studies

Eur. J. Org. Chem.

DOI: [10.1002/ejoc.200700147](https://doi.org/10.1002/ejoc.200700147)

An unprecedented hydride adduct was formed upon the addition of formate to a dicationic palladium cluster $[Pd_3-(dppm)_3(\mu_3-CO)]^{2+}$ (dppm = bis(diphenylphosphinomethane)). This is just one of the routes that can be used to form this product (see scheme). The palladium–hydride cluster has been fully characterised by both spectroscopic and electroanalytical methods.



Cluster Compounds

C. Cugnet, D. Lucas,* E. Collange,
B. Hanquet, A. Vallat, Y. Mugnier,
A. Soldera, P. D. Harvey*

Generation, Characterization, and
Electrochemical Behavior of the
Palladium–Hydride Cluster
 $[Pd_3(dppm)_3(\mu_3-CO)(\mu_3-H)]^+$
(dppm = Bis(diphenylphosphino-
methane))

Chem. Eur. J.

DOI: [10.1002/chem.200700069](https://doi.org/10.1002/chem.200700069)



Auf diesen beiden Seiten weisen wir auf wichtige aktuelle Beiträge in unseren Schwesterzeitschriften hin. Wenn Sie die Seiten online lesen, dann können Sie die

Artikel mit einem Klick direkt aufrufen, ansonsten sind sie durch Eingabe der DOIs über Wiley InterScience leicht online zugänglich.