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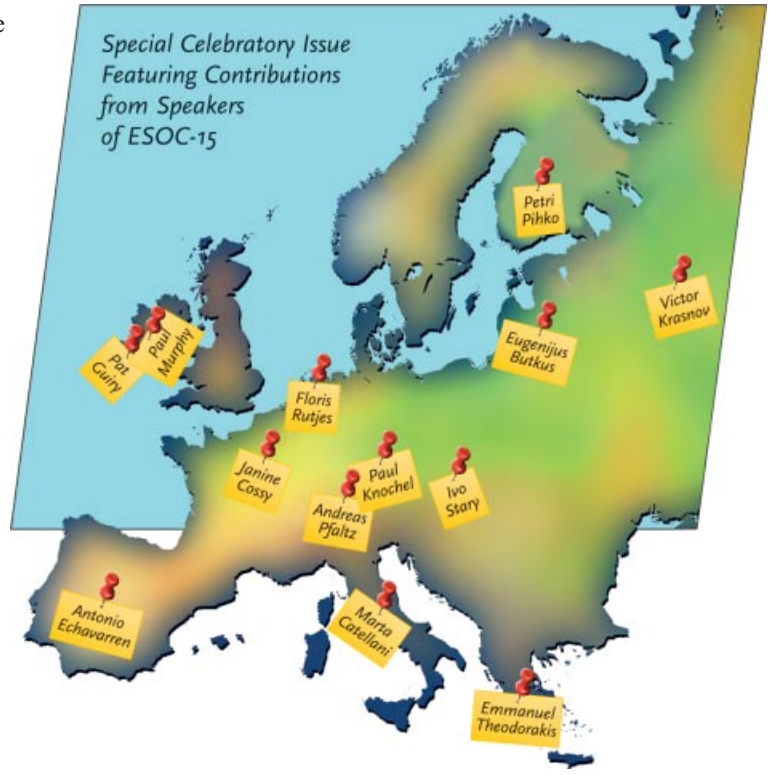
## COVER PICTURE

**The cover picture shows** that the contributors of the decennial celebratory issue of EurJOC come from all areas of Europe, thus highlighting the European heritage of the journal. The names of the corresponding authors are pinpointed in the region of Europe in which they conduct their research. The cover was conceptualised by Haymo Ross and designed by Denis Ott and Margitta Schmitt, both from the production department at Wiley-VCH.




## CONFERENCE REPORT

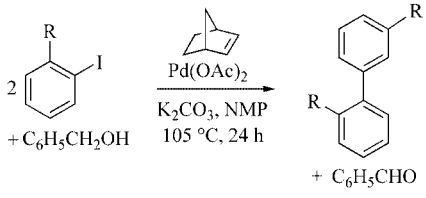


## MICROREVIEWS

### Aryl Coupling Reactions

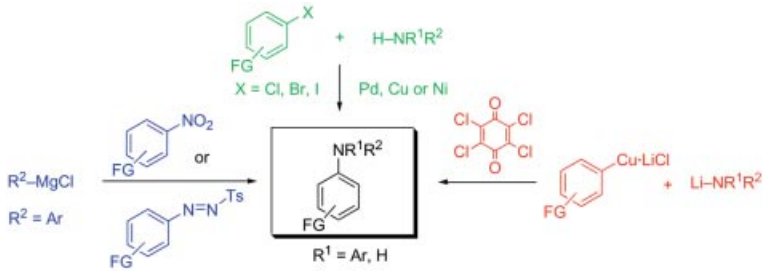



**Keywords:** Aryl coupling / Homogeneous catalysis / Metallacycles / Palladium / Transition metals



This microreview highlights recent advancements in catalytic aryl coupling methodologies, which provide powerful tools for the synthesis of compounds that are of interest to the fine chemical industry.

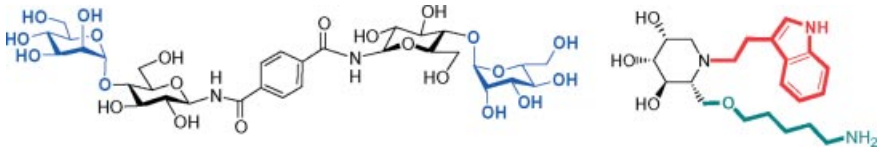





**Keywords:** Amines / C–N bond formation / Electrophilic amination / Oxidative couplings

Modern synthetic methods for the synthesis of primary, secondary, and tertiary amines are presented. Metal-catalyzed and electrophilic amination reactions are covered, as well as the oxidative coupling of lithium amidocuprates.





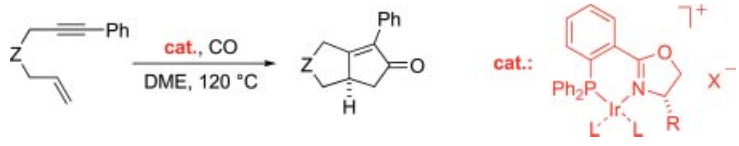



**Keywords:** Peptidomimetics / Macrocyclic scaffolds / Hybrid compounds / Multivalent ligands / Drug discovery

Saccharides, due to their multiple hydroxy groups and availability as chiral building blocks have been investigated as scaffolds for the synthesis of peptidomimetics, structurally constrained bivalent ligands and in the generation of novel scaffolds.

# SHORT COMMUNICATIONS



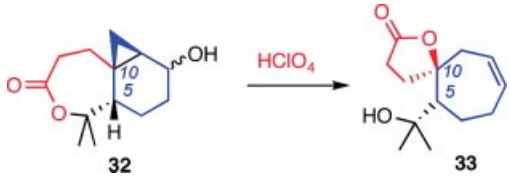





**Keywords:** Pauson–Khand reactions / Asymmetric catalysis / N,P ligands / Phosphane–oxazolines / Iridium

Iridium complexes derived from chiral phosphane–oxazolines (phox ligands) are efficient catalysts for intramolecular Pauson–Khand reactions. Under optimized conditions high yields and enantioselectivities of > 90 % *ee* were obtained with 2 mol-% of catalyst. The influence of the CO pressure and the anion were studied. The structure of a dicarbonyl(phox)iridium complex was determined by X-ray analysis.








**Keywords:** Synthesis design / Cyclopropanation / Synthetic methods / Baeyer–Villiger oxidation / Ring expansion

A novel acid-mediated cyclopropylcarbinol ring expansion methodology has been explored for the construction of the AB ring framework of lancifodilactone F and related terpenoids of the *Schisandraceae* family of natural products. We found that this rearrangement, represented by the conversion of **32** to **33**, proceeds with good stereochemical control defined by inversion of the configuration at the C10 cyclopropyl center. These studies pave the way for a potentially bioinspired synthetic entry to the *Schisandraceae* metabolites.

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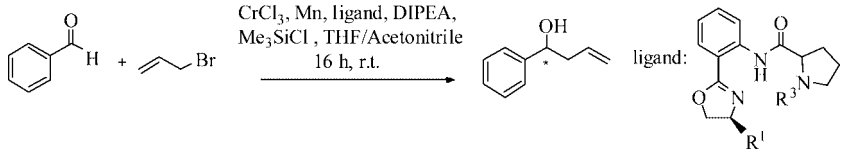
## FULL PAPERS



## Asymmetric Allylation of Aldehydes

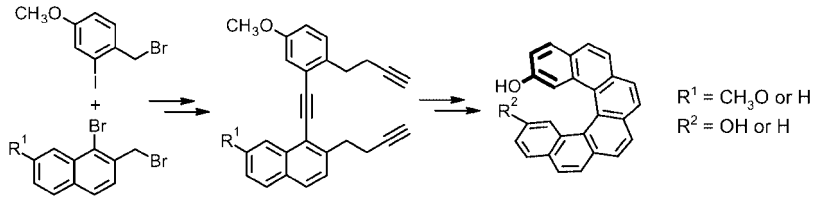





Ligands with an oxazoline ring linked by an amide bond to a chiral protected proline unit were prepared and used in the enantioselective Nozaki–Hiyama–Kishi allylation of benzaldehyde to give enantioselectivities up to 57 %. Diastereomeric ligand pairs were prepared to determine the role of each chiral centre in enantioselection.

**Keywords:** Asymmetric catalysis / Oxazolines / Proline / Ligands / Allylation

## Helicenes

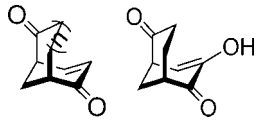





2-Hydroxy- and 2,15-dihydroxyhexahelicene were synthesised from simple benzene and naphthalene building blocks by intramolecular $Co^{I}$- or $Ni^{0}$-catalysed [2+2+2] cycloisomerisation of $CH_3O$-substituted aromatic triynes. This approach avoids vexing photodehydrocyclisation of stilbene-type precursors, providing thus a useful alternative to classical procedures.

**Keywords:** Alkynes / Arenes / Cyclotrimerisation / Fused-ring systems

## Enantiospecific Synthesis

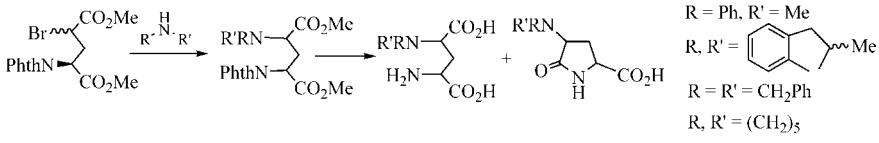





A series of enantiomerically pure bicyclo[3.3.1]nonane α,β-enones were synthesized, and the α,β-enone chromophore was studied by circular dichroism. The chiroptical properties of the enantiomerically pure compounds were investigated. The circular dichroism spectra provided evidence for interchromophoric interaction in dichromophoric molecules.

**Keywords:** Chirality / CD spectroscopy / Chromophores / Enantiospecific synthesis / Enones

## Modification of Amino Acids






We have shown that by using dimethyl (2*S*,4*RS*)-4-bromo-*N*-phthaloylglutamate as the starting material we obtain diastereomeric racemates of 4-amino-5-oxoproline and 4-aminoglutamic acid derivatives. In the case of secondary arylamines, the individual stereoisomers of the target products can be prepared.

**Keywords:** Amino acids / Nucleophilic substitution / Hydrolysis / γ-Lactams / Diastereoselectivity

**If not otherwise indicated in the article, papers in issue 24 were published online on August 2, 2007**