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Tetrahedron:
*Asymmetry*

**Tetrahedron: *Asymmetry* Vol. 17, No. 17, 2006**

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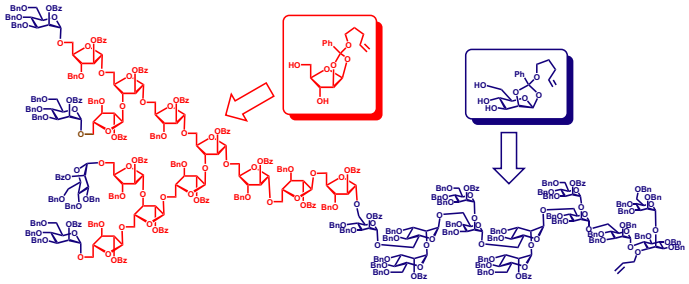

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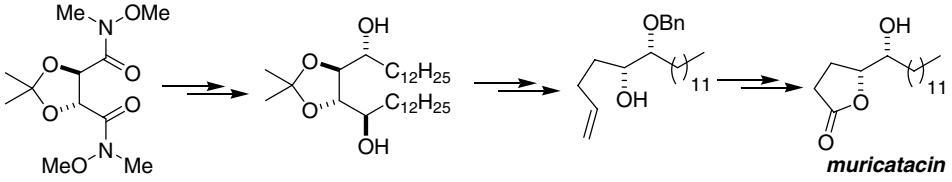


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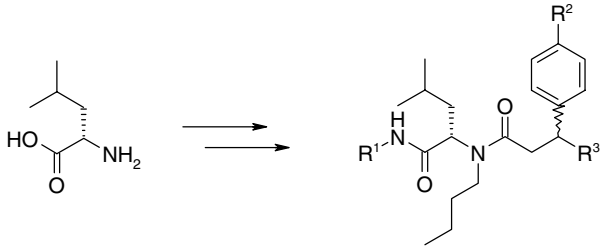

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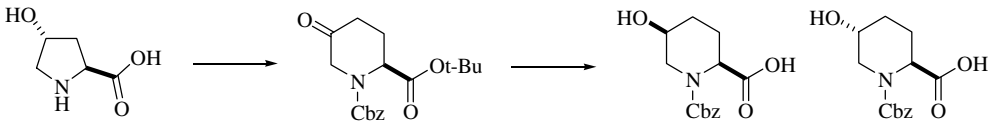


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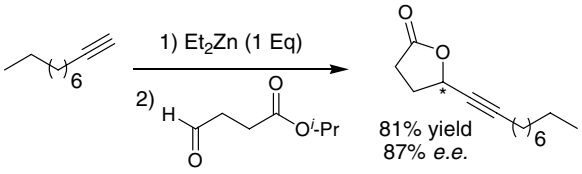
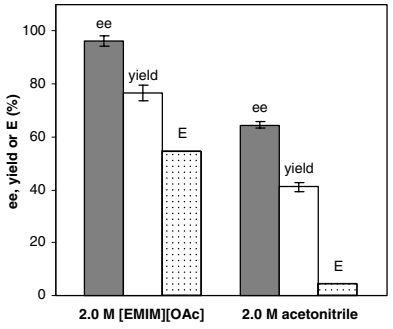



**Using ionic liquid [EMIM][$CH_3COO$] as an enzyme-'friendly' co-solvent for resolution of amino acids** **pp 2491–2498**
Hua Zhao,* Lee Jackson, Zhiyan Song and Olarongbe Olubajo

The kinetic resolution of DL-phenylalanine methyl ester catalyzed by lyophilized *Bacillus licheniformis* protease was carried out at 30 °C in 2.0 M [EMIM][$CH_3COO$] and 2.0 M acetonitrile, respectively. At 40 min reaction time, much higher ee and yield were obtained in the ionic liquid (IL) solution than those in the organic solution, suggesting that this IL stabilizes the enzyme while the organic solvent deactivates it.

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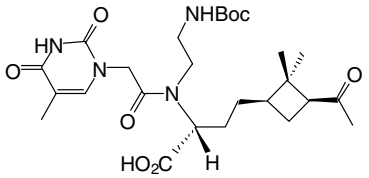

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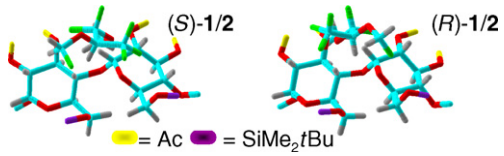
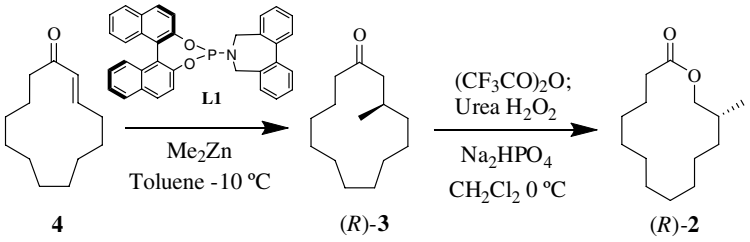



**An alternative stereoselective synthesis of the macrocyclic fragrances (*R*)-12-methyltridecanolide and (*S*)-muscolide by means of an asymmetric catalytic conjugate addition/Baeyer–Villiger oxidation** pp 2511–2515
Patrizia Scafato, Augusto Larocca and Carlo Rosini*

Compound (*R*)-**2** is a natural constituent of angelica root oil (*Archangelica officinalis* Hoffm.).
It's possesses a *musk note with a sandalwood tonality*. [Kraft, P.; Frater G. *Chirality*, **2001**, *13*, 388–394].
The precious macrocyclic fragrance (*R*)-**2** has been obtained in good yield and high (92%) enantiomeric excess by asymmetric catalytic conjugate addition of dimethylzinc to the α,β-unsaturated ketone **4**, followed by a regioselective Baeyer–Villiger oxidation of (*R*)-**3**. Using the same procedure the structurally similar fragrance (*S*)-muscolide has been obtained.

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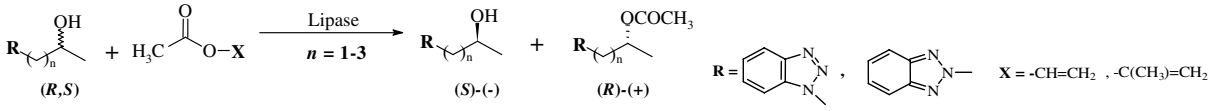


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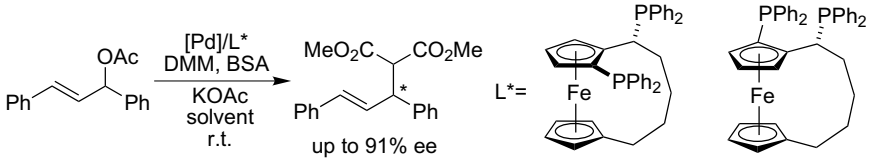

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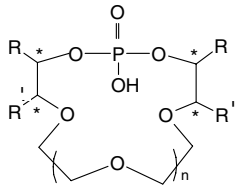


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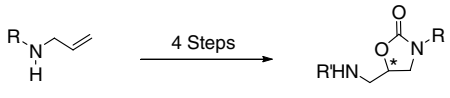


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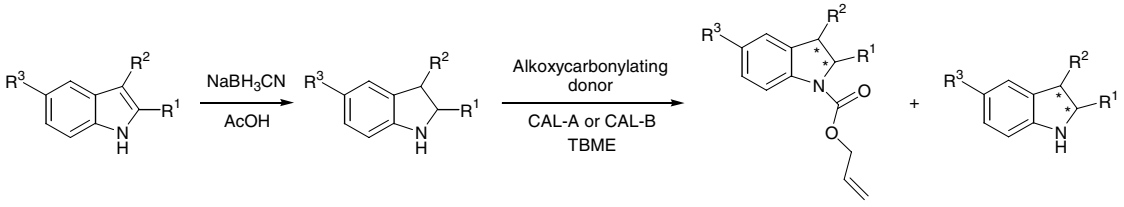
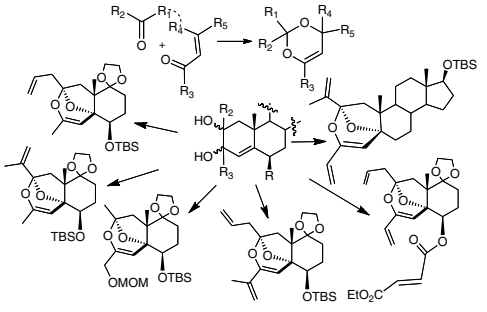



**The domino chemistry approach to molecular complexity: high-yielding bis-hetero intramolecular Diels–Alder reactions with ketone components** **pp 2565–2591**
Angeline Chanu, Isabel Castellote, Aurelien Commeureuc, Imad Safir and Siméon Arseniyadis*

The bis-ketone option of a domino generated intramolecular bis-hetero Diels–Alder reaction, allowing for a stereodefined construction of oxygen heterocycles is described.



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