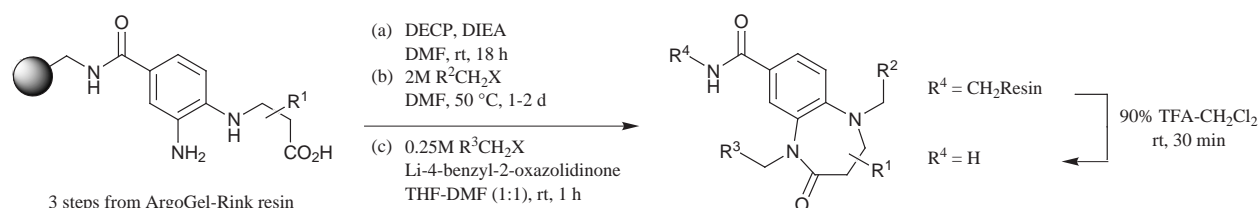


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Perkin 1 Abstracts: Solid Phase Organic Synthesis are a selection of significant papers published in the recent literature covering the broad area of Solid Phase Organic Synthesis (SPOS). The abstracts cover preparation of single compounds on solid support as well as combinatorial libraries. Advances in new linker design are also covered.

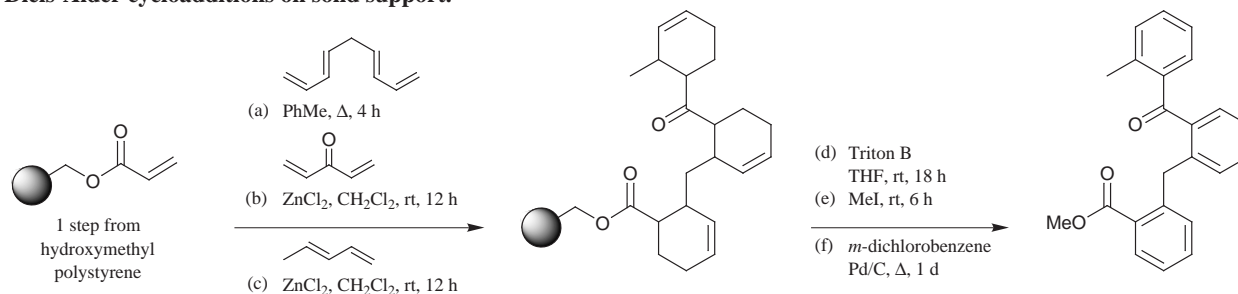
1,5-Benzodiazepin-2-ones



M. K. Schwarz, D. Tumelty and M. A. Gallop, *Tetrahedron Lett.*, 1998, **39**, 8397.

18 examples (yields 56->90%, HPLC purity 80->95%).

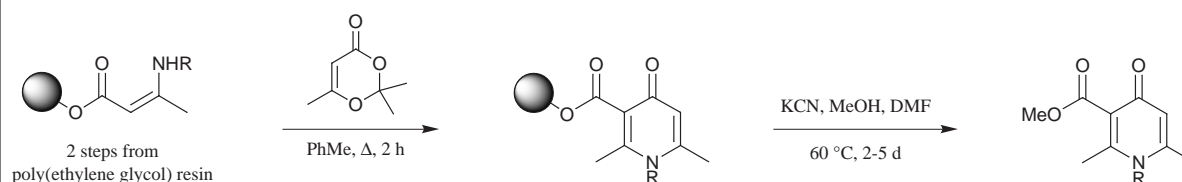
Diels-Alder cycloadditions on solid support.



J. D. Winkler and Y.-S. Kwak, *J. Org. Chem.*, 1998, **63**, 8634.

1 example (yield 33%) is reported.

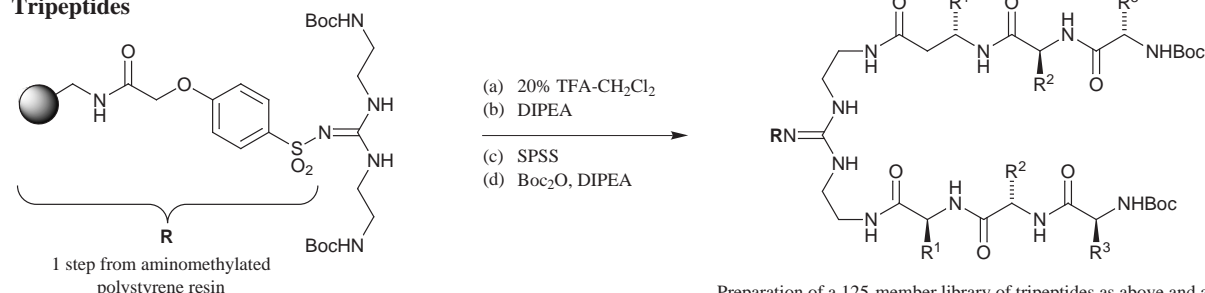
4-Pyridones



A. R. Far and T. T. Tidwell, *J. Org. Chem.*, 1998, **63**, 8636.

4 examples (HPLC purity 91-98%).

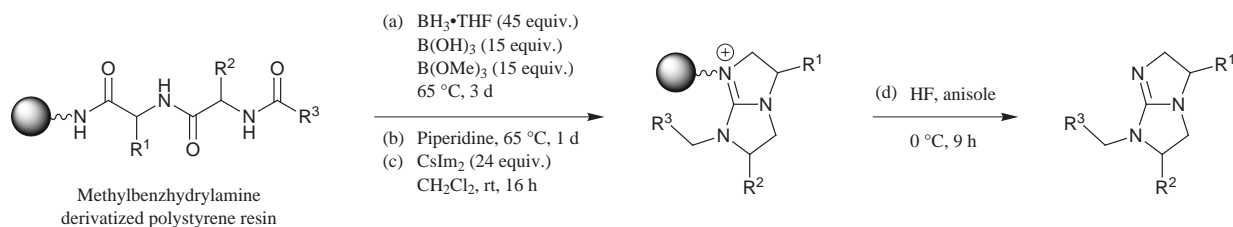
Tripeptides



M. Davies, M. Bonnat, F. Guillier, J. D. Kilburn and M. Bradley, *J. Org. Chem.*, 1998, **63**, 8696.

Preparation of a 125-member library of tripeptides as above and a 1000-member inverted tripeptide library on TentaGel-S-NH₂ resin are reported.

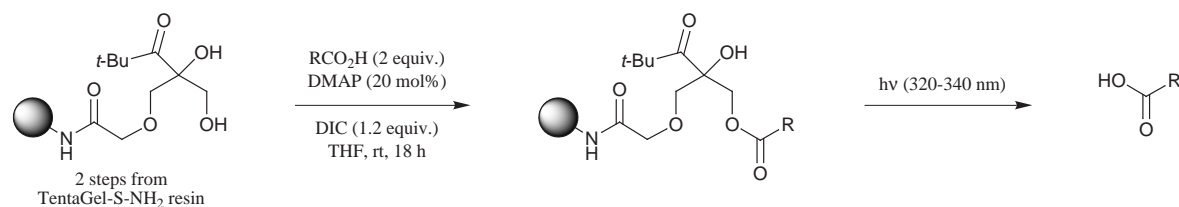
Trisubstituted bicyclic guanidines



J. M. Ostresh, C. C. Schoner, V. T. Hamashin, A. Nefzi, J.-P. Meyer and R. A. Houghten, *J. Org. Chem.*, 1998, **63**, 8622.

9 examples reported

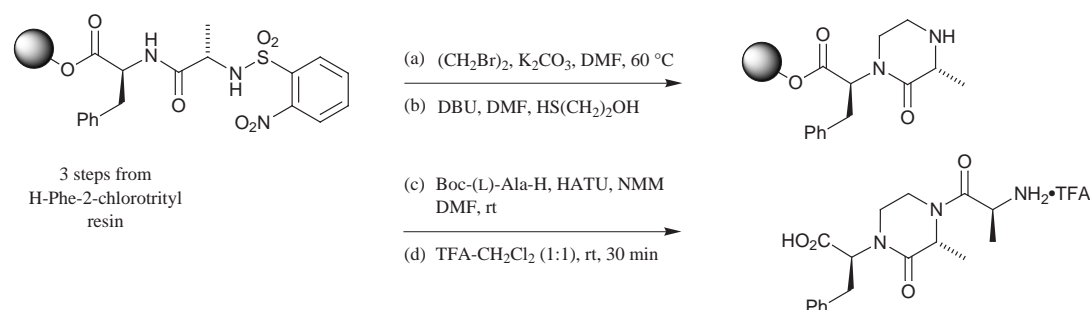
A novel 2-pivaloylglycerol based photolabile linker.



S. Peukert and B. Giese, *J. Org. Chem.*, 1998, **63**, 9045.

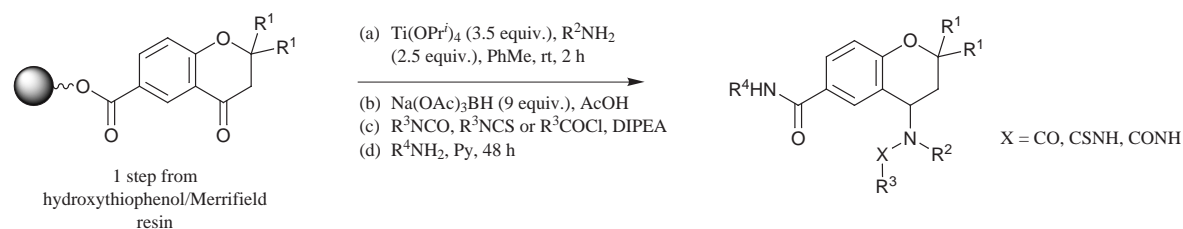
Attachment, manipulation and cleavage of 7 acids (yields 50-86%, HPLC purity 85-95%) is described.

An approach to the solid-phase synthesis of substituted oxopiperazines from amino acids.



N. Mohamed, U. Bhatt and G. Just, *Tetrahedron Lett.*, 1998, **39**, 8213.

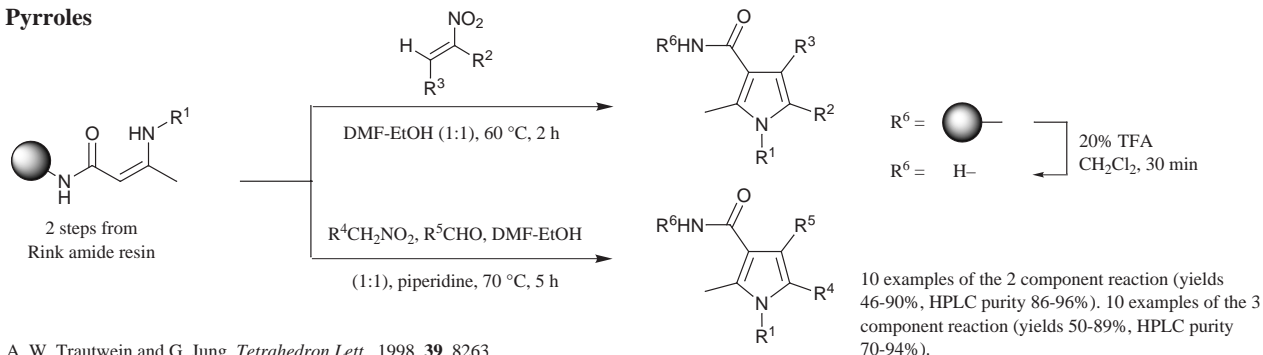
Benzopyrans



J. G. Breitenbucher and H. C. Hui, *Tetrahedron Lett.*, 1998, **39**, 8207.

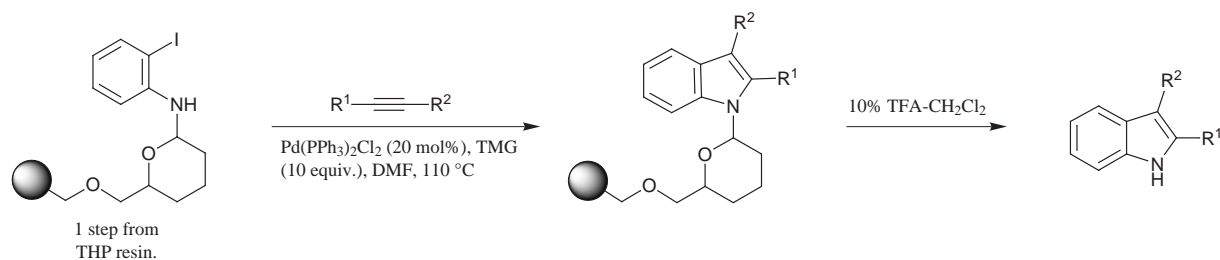
A library of 8448 benzopyrans is prepared via titanium-mediated reductive amination (average purity 73%).

Pyrroles



A. W. Trautwein and G. Jung, *Tetrahedron Lett.*, 1998, **39**, 8263.

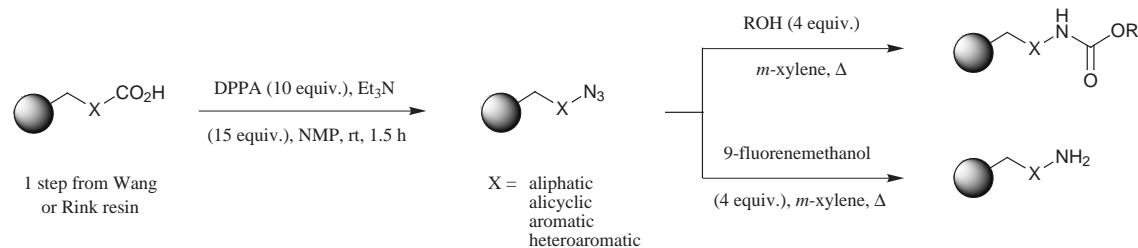
2,3-Disubstituted indoles



A. L. Smith, G. I. Stevenson, C. J. Swain and J. L. Castro, *Tetrahedron Lett.*, 1998, **39**, 8317.

6 examples (conversion 48, 93-100%).

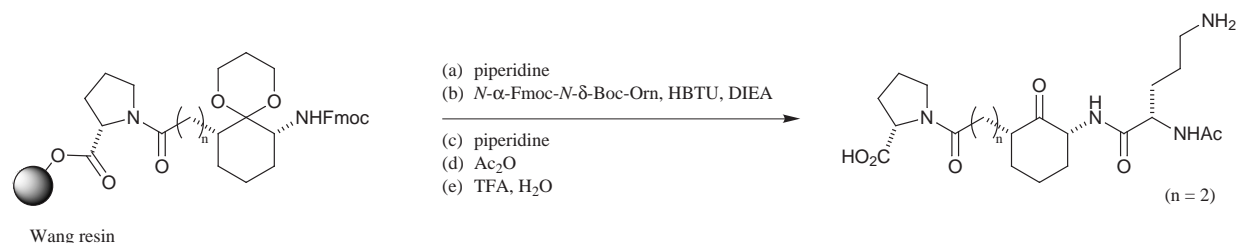
Curtius degradation in solid-phase synthesis.



L. S. Richter and S. Andersen, *Tetrahedron Lett.*, 1998, **39**, 8747.

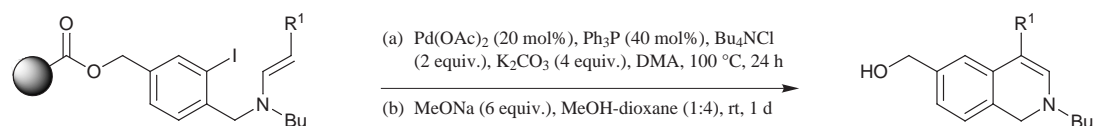
11 examples (yields 34-86%, purities 80->90%).

Synthesis of cyclohexanone-based Capthesin B inhibitors that interact with both the S and S' binding sites.



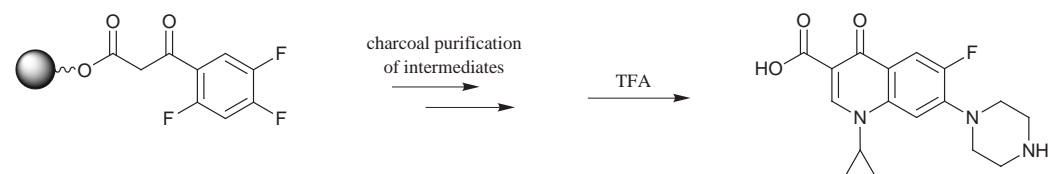
J. L. Conroy, P. Abato, M. Ghoush, M. I. Austermuhe, M. R. Kiefer and C. T. Seto, *Tetrahedron Lett.*, 1998, **39**, 8253.

Radical and palladium-mediated cyclisations of *ortho*-iodobenzyl enamines: application to solid-phase synthesis.



S. Berteina, S. Wendeborn and A. De Mesmaeker, *Synlett*, 1998, 1231.

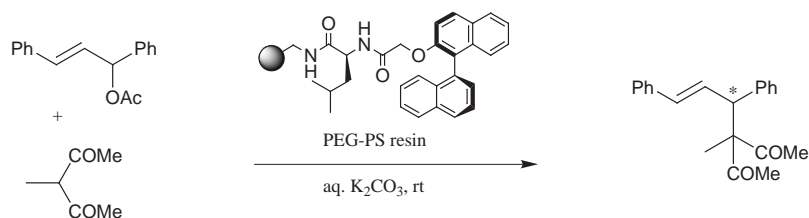
Use of tetrabenzo[a,c,g,i]fluorene as an anchor group for the solid/solution phase synthesis of Ciprofloxacin.



A. M. Hay, S. Hobbs-Dewitt, A. A. MacDonald and R. Ramage, *Tetrahedron Lett.*, 1998, **39**, 8721.

The affinity of tetrabenzo[a,c,g,i]fluorene (Tbf) for charcoal has been applied successfully to provide an alternative to existing solid-phase methodology. In a synthesis of the antibacterial Ciprofloxacin a traditional solution phase synthesis has been coupled with efficient pseudo-solid phase purification.

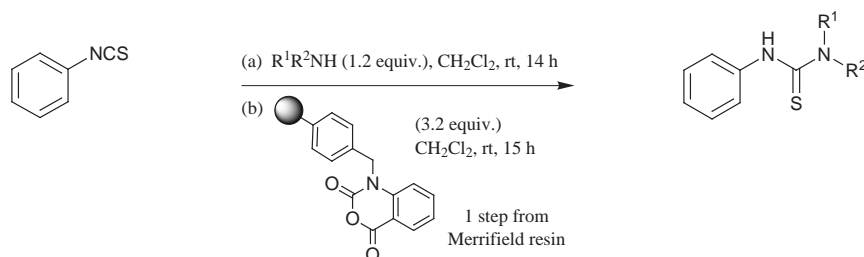
Palladium-catalysed asymmetric allylic substitution in aqueous media using amphiphilic resin-supported MOP ligands.



Y. Uozumi, H. Danjo and T. Hayashi, *Tetrahedron Lett.*, 1998, **39**, 8303.

5 examples of allylic substitution using different polymer supported chiral ligands (yields <5-75%, ee = 14-81%).

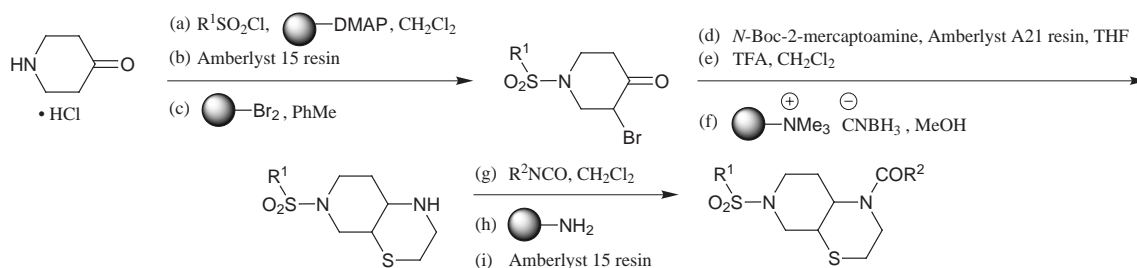
A new scavenger resin for amines.



G. M. Coppola, *Tetrahedron Lett.*, 1998, **39**, 8233.

10 examples (yields 91-99%, HPLC purity 97-99%).

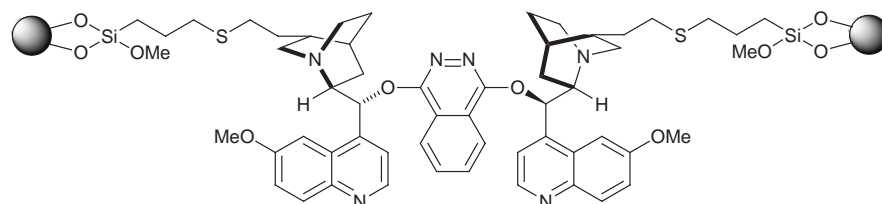
Piperidino-thiomorpholines



J. Habermann, S. V. Ley and J. S. Scott, *J. Chem. Soc., Perkin Trans. 1*, 1998, 3127.

32 examples of piperidino-thiomorpholines and their corresponding sulfones (yields 39-100%, LC-purity 50-98%) are reported.

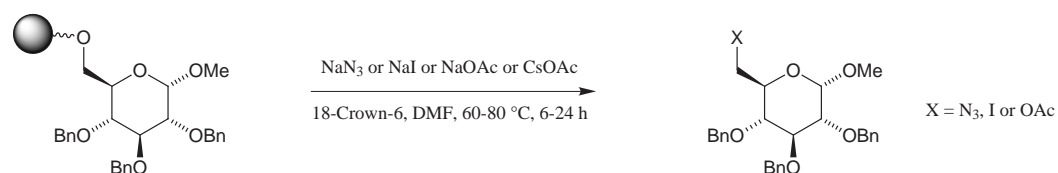
Asymmetric aminohydroxylation using a silica gel supported bis-cinchona alkaloid.



C. E. Song, C. R. Oh, S. W. Lee, S. Lee, L. Canali and D. C. Sherrington, *Chem. Commun.*, 1998, 2435.

5 examples of aminohydroxylation of *trans*-cinnamate derivatives using the above silica gel supported alkaloid are reported (yields 40-81%, ee 88->99%). The ligand-Os complex can be reused without loss of enantioselectivity, and products are isolated free from Os contamination.

Nucleophilic substitutions on Multipin systems with a traceless linker.



T. Takahashi, S. Tomida, H. Inoue and T. Doi, *Synlett*, 1998, 1261.

3 examples (conversions >95%, HPLC purity >95%). Also 1 example of macrocyclisation of a polymer supported cyanohydrin (yield 40%).