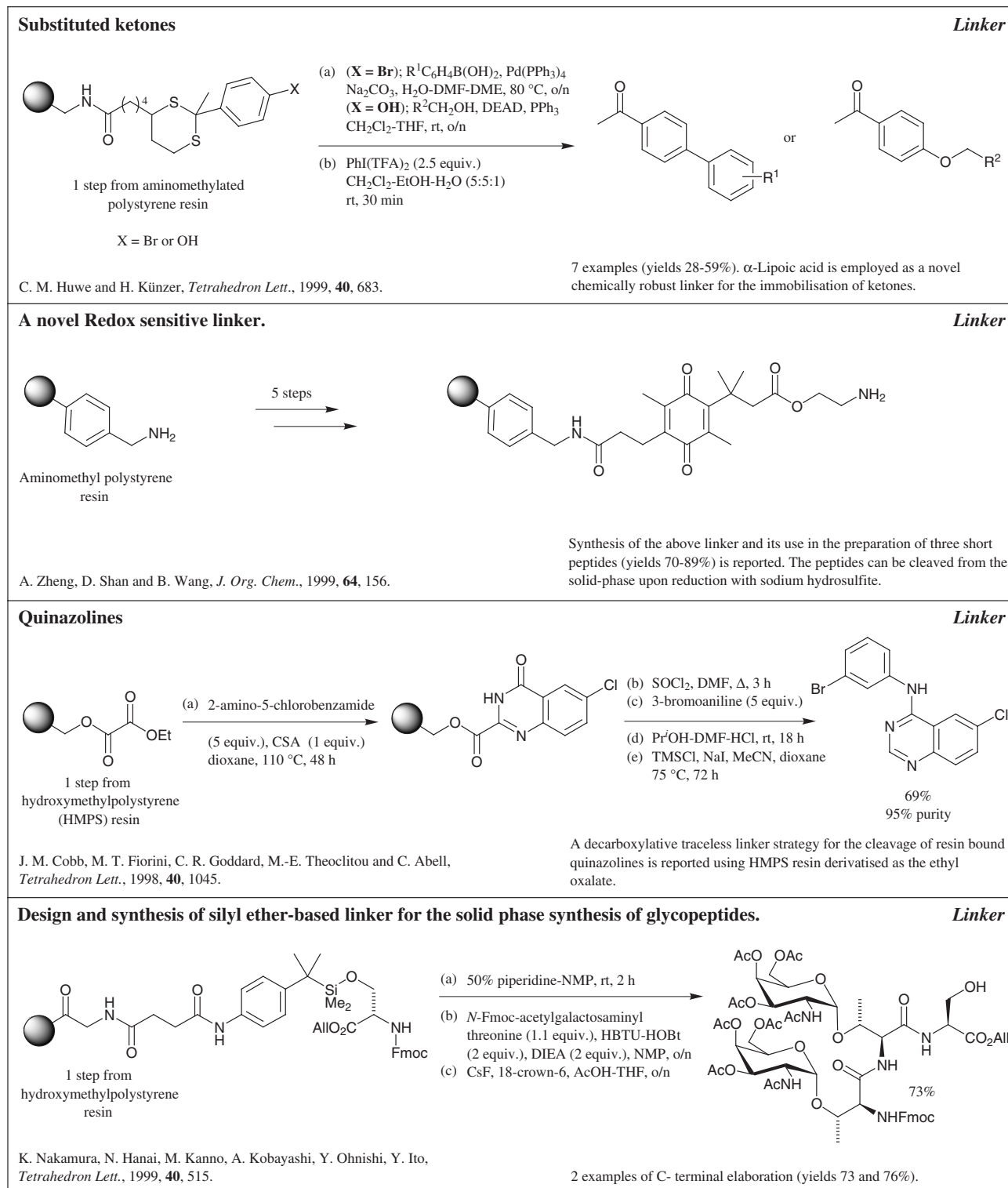


Compilers: John Christopher,^a Louise Lea,^a Catherine McCusker,^a Susan Booth^b and Jason Tierney^b

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^b Organon Laboratories Ltd, Newhouse, Lanarkshire, UK ML1 5SH

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.



C. M. Huwe and H. Künzer, *Tetrahedron Lett.*, 1999, **40**, 683.

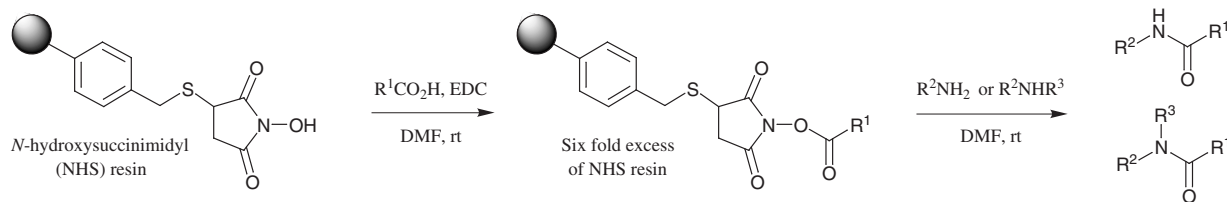
A. Zheng, D. Shan and B. Wang, *J. Org. Chem.*, 1999, **64**, 156.

J. M. Cobb, M. T. Fiorini, C. R. Goddard, M.-E. Theoclitou and C. Abell, *Tetrahedron Lett.*, 1998, **40**, 1045.

K. Nakamura, N. Hanai, M. Kanno, A. Kobayashi, Y. Ohnishi, Y. Ito, *Tetrahedron Lett.*, 1999, **40**, 515.

Amides via the synthesis of *N*-hydroxysuccinimidyl (NHS) active ester resins.

Linker

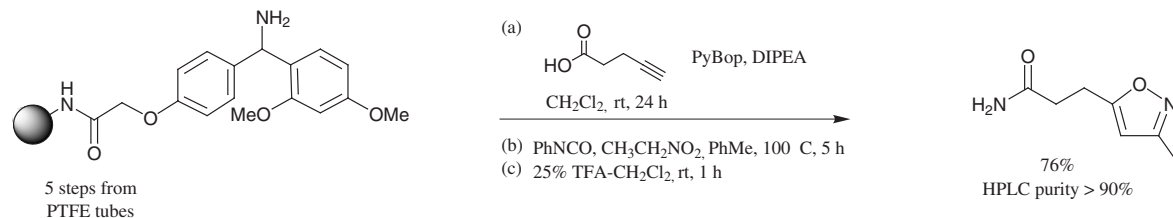


M. Adamczyk, J. R. Fishpaugh and P. G. Mattingly, *Bioorg. Med. Chem. Lett.*, 1999, 9, 217 and *Tetrahedron Lett.*, 1999, 40, 463.

8 examples (yields 87-98%, HPLC purity 91-99%). Resin supported fluorescein, coumarin, acridinium and biotin active esters were also prepared as labelling reagents for biological assay.

Polystyrene grafted PTFE tubes as new supports for solid phase organic chemistry.

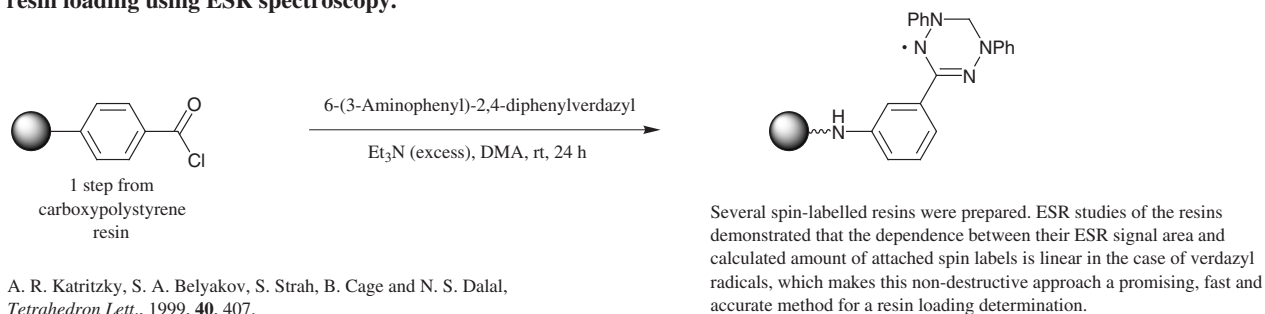
Support



C. Zhao, S. Shi, D. Mir, D. Hurst, R. Li, X. Xiao, J. Lillig and A. W. Czarnik, *J. Comb. Chem.*, 1999, 1, 91.

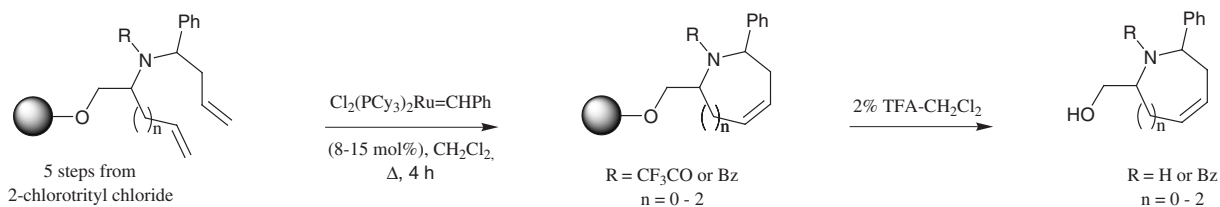
Examples of 1,3-dipolar and Diels-Alder cycloadditions are also described to illustrate the synthetic utility of the PTFE microtubules.

Preparation of spin-labelled styrene-divinylbenzene copolymers and a new approach to quantitative determination of resin loading using ESR spectroscopy.



A. R. Katritzky, S. A. Belyakov, S. Strah, B. Cage and N. S. Dalal, *Tetrahedron Lett.*, 1999, 40, 407.

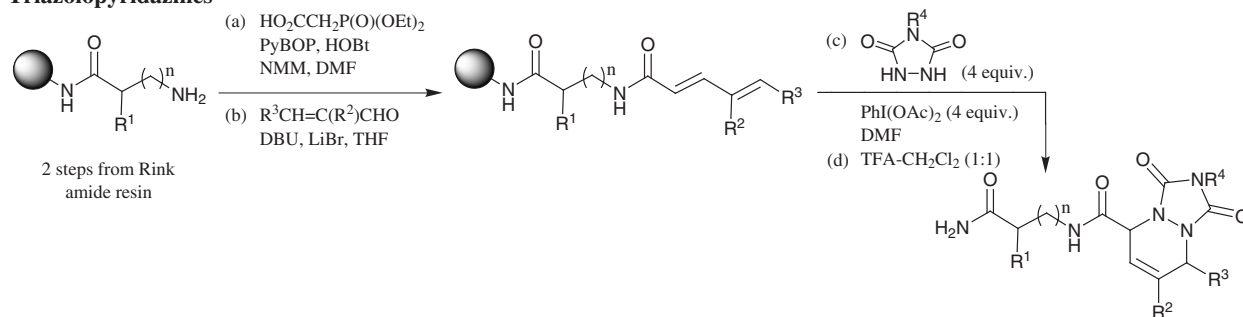
Functionalized 6-, 7- and 8-membered azacycles via olefin metathesis.



J. Pernerstorfer, M. Schuster and S. Blechert, *Synthesis*, 1999, 138.

4 examples (yields 85-89%). Further functionalisation of the polymer-bound metathesis products was demonstrated by epoxidation of the double bond, 1 example (yield 70%).

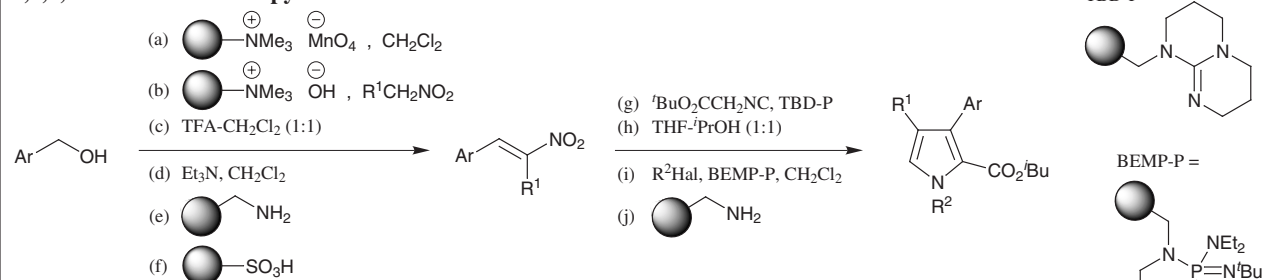
Triazolopyridazines



A. M. Boldi, C. R. Johnson and H. O. Eissa, *Tetrahedron Lett.*, 1999, 40, 619.

10 examples (yields 24-82%, HPLC purity 40-93%).

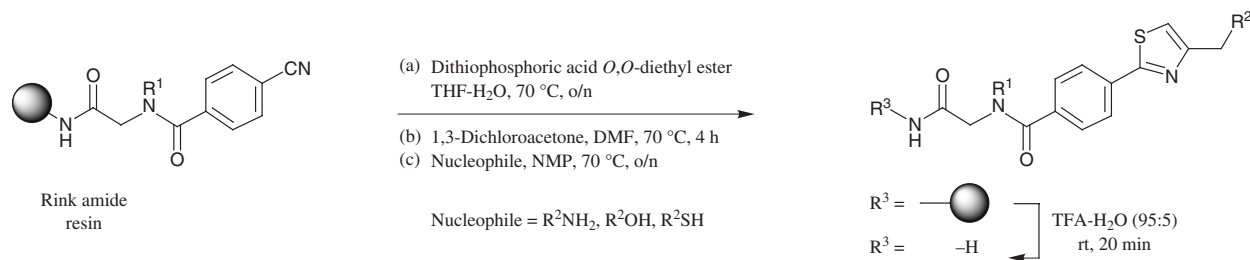
1,2,3,4-Tetra-substituted pyrroles



M. Caldarelli, J. Habermann and S. V. Ley, *J. Chem. Soc., Perkin Trans. 1*, 1999, 107.

19 examples (yields 60-100%, LC purity 85->98%).

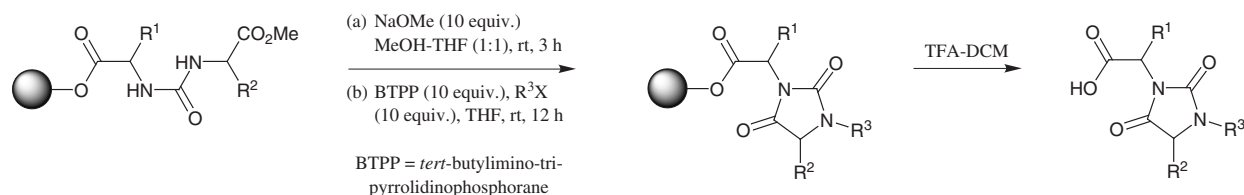
2,4-Disubstituted thiazoles



D. Goff and J. Fernandez, *Tetrahedron Lett.*, 1999, **40**, 423.

8 examples (yields 58-95%, HPLC purity 98%).

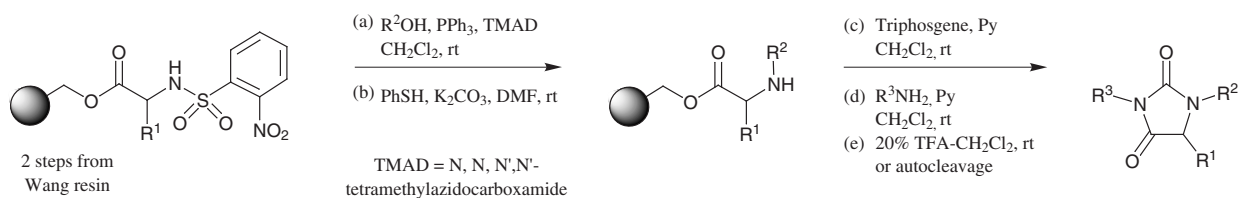
Hydantoins



M. Bauser, M. Winter, C. A. Valenti, K.-H. Wiesmuller and G. Jung, *Mol. Diversity*, 1998, **3**, 257.

7 examples (yields 22-83%).

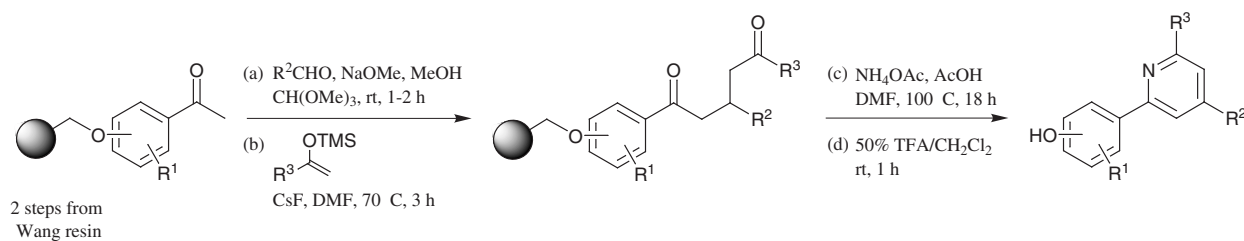
1,3,4-Trisubstituted hydantoins



J. J. Scicinski, M. D. Barker, P. J. Murray and E. M. Jarvie, *Bioorg. Med. Chem. Lett.*, 1998, **8**, 3609.

60 examples are reported.

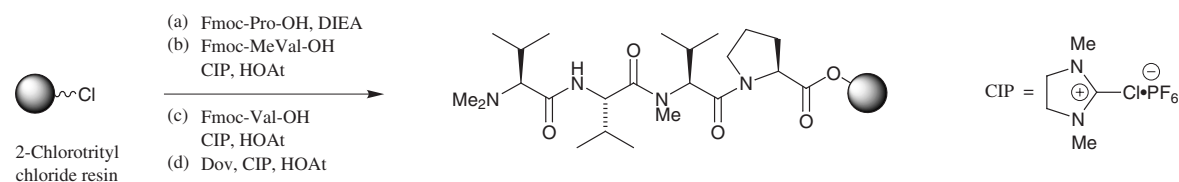
2,4,6-Trisubstituted pyridines



C. Chiu, Z. Tang and J. W. Ellingboe, *J. Comb. Chem.*, 1999, **1**, 73.

10 examples (yields 19-62%, HPLC purity 21-81%).

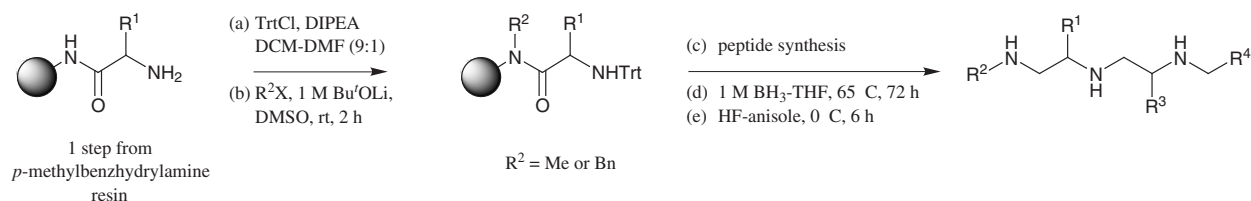
Convergent synthesis of Dolastatin 15 by solid phase coupling of an *N*-methylamino acid.



K. Akaji, Y. Hayashi, Y. Kiso and N. Kuriyama, *J. Org. Chem.*, 1999, **64**, 405.

Synthesis of the above fragment of the natural product Dolastatin 15 on solid-phase is reported.

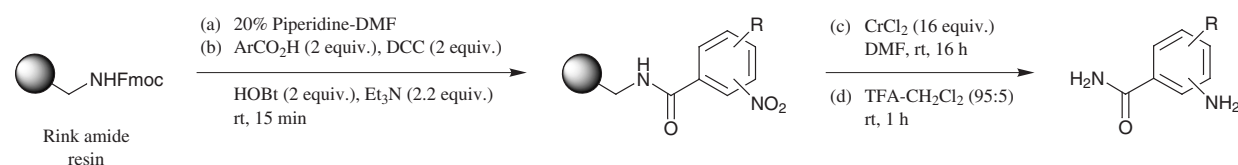
Tetrasubstituted diethylenetriamines



A. Nefzi, J. M. Ostresh and R. A. Houghten, *Tetrahedron*, 1999, **55**, 335.

194 examples (HPLC purity 55- >95%).

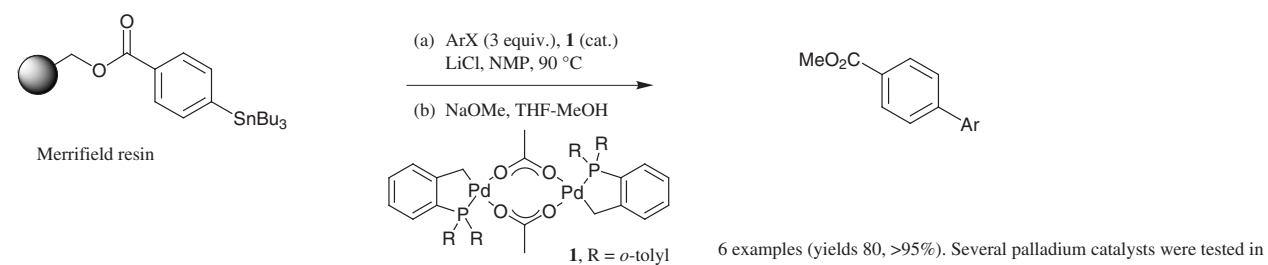
Reduction of aryl nitro groups on solid support.



A. Hari and B. L. Miller, *Tetrahedron Lett.*, 1999, **40**, 245.

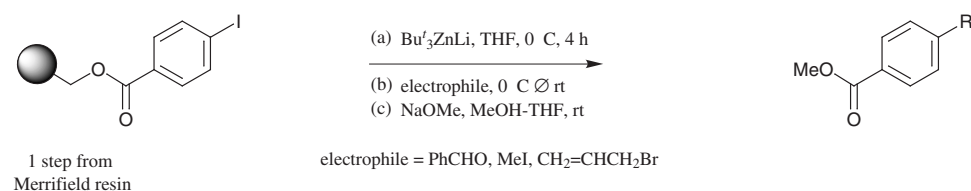
7 examples (yields 90-97%).

Palladium-catalysed coupling of functionalised bromoarenes to a polystyrene-bound aryl tributylstannane.



M. S. Brody and M. G. Finn, *Tetrahedron Lett.*, 1999, **40**, 415.

New chemoselective metallating agents.



Y. Kondo, T. Komine, M. Fujinami, M. Uchiyama and T. Sakamoto, *J. Comb. Chem.*, 1999, **1**, 123.

3 examples (yields 45-89%).