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Book Review

***Protecting Groups*, Edited by P.J. Kocienski, Georg Thieme Verlag, Stuttgart, 2000, pp. xv + 260, ISBN 3-13-137002-5; DM 99, SFr 90, Euro 50.62**

The first edition of this book was published in 1994 and now that the first print runs have sold out, the author has published this corrected edition. This is, as the name implies, simply a corrected version of the original, with updated references to the review literature at the end of each chapter. The owner of the first edition of the book will therefore be unlikely to require to purchase a copy of this edition, although it will remain invaluable as a source book for new synthetic organic chemists entering the field.

There are other books available on the use of protecting groups, the most comprehensive being 'Protective Groups in Organic Synthesis' by T.W. Greene and P.G.M. Wut, published by Wiley-Interscience, New York, 1999. This is now in its third edition and is an exhaustive treatment of the subject, which any practitioner of organic synthesis will want to have. Kocienski's book is complementary to that of Greene and Wut. The approach is less comprehensive and more critical, concentrating on the most widely used protecting groups for most of the common functional groups. The examples use more complex compounds than those found in Greene and Wut, and so problems of orthogonality and compatibility can be addressed.

For the organometallic chemist, the book will be of use when protection is required in the synthesis of complex ligands. Organometallic protecting groups containing silicon have revolutionised the field of protection in synthesis and many silicon-containing groups are covered here–alcohols have been protected as silyl ethers and β-(trimethylsilyl)ethoxymethyl ethers; diols as silylene derivatives and disiloxanylidene derivatives; acids as 2-(trimethylsilyl)ethyl esters and silyl esters, and amines as (trimethylsilyl)ethoxycarbonyl urethanes, β-(trimethylsilyl)ethanesulfonamides and *N*-silylamines and imines. Applications of organometallic chemistry to the field has allowed for the mild deprotection of allyl esters, and carbamates via π-allyl complexes with Pd^0 and some protecting groups have had a secondary effect, in allowing regiospecific control of the addition of organometallic reagents through chelation control and heteroatom-assisted metallation reactions.

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