

# Preface

Basic laboratory techniques in organic chemistry are an essential element in the training of chemists, who must learn to employ their experimental skills in the preparative organic laboratory in order to undertake the safe, careful and successful synthesis of compounds.

This guide was originally developed in concept by R. Scheffold at the ETH Zürich as the basis for a successful course in practical organic chemistry. Further contributions by many teaching assistants, first at the ETH and later together with R. K. Müller, A. Pfaltz and R. K.'s students at the University of Berne, led to the publication of *Grundoperationen der präparativen organischen Chemie, eine Einführung*, now in its 6<sup>th</sup> edition, which has been used successfully as a teaching tool in the first laboratory course of preparative organic chemistry.

Many suggestions and comments from experts, colleagues and friends have augmented the information presented. Safety precautions and environmental considerations in the handling and disposal of reagents are nowadays significant concerns of the responsible experimentalist. The main chapters deal with practical procedures and guidelines for organisational aspects of preparing compounds. The chapter on searching the literature, illustrated by worked examples, is particularly useful in providing efficient access to chemical information; this material was developed by Martin Brändle, an information specialist at the ETH.

In addition to proving invaluable to the aspiring undergraduate, experience has shown that this practical guide is also useful to advanced students as a handbook or desktop manual in the laboratory: it contains many details about solvents, handling of air sensitive compounds, the synthesis and analysis of optically active compounds, and the disposal and deactivation of hazardous chemicals. Beyond the teaching aspects of this practical guide, we believe that our hints and suggestions may also provide a stimulus for chemists searching for solutions to practical problems in the preparative laboratory.

Mrs. H. Mischler-Brühwiler's cartoons and illustrations make this practical guide entertaining as well as instructive. Thanks are also due to P. Schär, who provided the pages from his laboratory notebook.

*Practical Organic Chemistry* contains a wealth of useful information, laid out in a clear, stimulating style, designed to appeal to novices and experts in this field. It is an essential guide to young students, a text to which they will return again and again throughout their careers.

Berne, February 2006

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