Table of Contents

Preface

What's in a name? That which we call a rose by any other name would smell as sweet.[a] On the other hand, *name reactions* in organic chemistry and the corresponding mechanisms are nevertheless fascinating for their far-reaching utility as well as their insight into organic reactions. Furthermore, understanding their mechanisms greatly enhances our ability to solve more complex chemical problems. As a matter of fact, some name reactions are the direct result of better understanding of the mechanisms, as exemplified by the Barton–McCombie reaction.[b] In addition, our knowledge of how reactions work can shed light on side reactions and by-products, or when a reaction does not give the "desired" product, the mechanism may provide clues to where the reaction has gone awry.

I started collecting named and unnamed organic reactions and their mechanisms while I was a graduate student. It occurred to me that many of my fellow practitioners are doing exactly the same, and that these efforts could be made easier through a monograph tabulating interesting and useful mechanisms of name reactions. To this end, I have updated my collection with many *contemporary* name reactions and added more recent references, especially up-to-date review articles. In reflecting the advent of asymmetric synthesis, relevant name reactions in this field have been included to the repertoire. Since the step-by-step mechanisms delineated within are mostly self-explanatory, detailed verbal explanations are not offered, although some important jargons entailing the types of transformations are highlighted. For some reactions, short descriptions are given as mnemonics rather than accurate definitions. With regard to the references, the first one is generally the original article, whereas the rest are articles and review articles. Readers interested in in-depth coverage of name reactions are encouraged to follow up with the references as well as the following five books covering the relevant topic:

1. Mundy, B. R.; Ellerd, M. G. *Name Reactions and Reagents in Organic Synthesis* John–Wiley & Sons, New York, **1988**.
2. Hassner, A.; Stumer, C. *Organic Synthesis Based on Named and Unnamed Reactions* Pergamon, **1994**.
3. Laue, L.; Plagens, A. *Named Organic Reactions* John–Wiley & Sons, New York, **1999**.
4. "*Organic Name Reactions*" section, *The Merck Index* (13th edition), **2001**.
5. Smith, M. B.; March, J. "*Advanced Organic Chemistry*" (5th edition), Wiley, New York, **2001**.

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References

a. William Shakespeare, "*Romeo and Juliet*" Act II, Scene ii, **1594–1595**.
b. Derek H. R. Barton, "*Some Recollections of Gap Jumping*" American Chemical Society, Washington, DC, **1991**.