

Release: SOS 4.9, December 2017



Content

1. New: Science of Synthesis Knowledge Updates

SOS is continuously updated with high-quality content using clearly defined criteria for method selection as well as established editorial processes. The Editorial Board, in conjunction with the volume editors and authors, reviews the whole field of synthetic organic chemistry as presented in SOS and evaluate significant developments in synthetic methodology.

A list of strict criteria for method selection guides the updating process in order to guarantee that only the best and most reliable synthetic methods are included in SOS. Authors, who are renowned specialists in their respective fields, add new methods and add new (or completely revise existing) product (sub)classes.

The updating procedure is continuous and new content will continually be added to the electronic version. SOS continues to be the most up-to-date evaluated electronic reference work available, emphasizing the most significant developments in synthetic methodology.

This release will see the addition of **one new update volume** comprising approx. **500 printed pages**.

SOS Knowledge Updates 2017/3 highlights:

- A major update on the synthesis of **pyrazoles** (Götzinger, A. C. and Müller, T. J. J.). These heterocycles feature significantly in pharmaceuticals and other biologically active molecules and are also increasingly used as ligands in coordination chemistry. Important advances have been made in the regioselective synthesis of pyrazoles in recent years and significant improvements have been made to pre-existing methods, allowing the use of milder reaction conditions and an extended substrate scope.
- An update on **enol ethers** (Bartels, F., Zimmer, R., and Christmann, M.), presenting improvements and extensions of classical approaches to the synthesis of this key functional group as well as recently developed metal-catalyzed methods. The applications of these methods in natural product synthesis are also highlighted.
- An update on the **Mannich Reaction** (Schneider, C. and Sickert, M.). Now over 100 years old, this reaction is still one of the most fundamental and useful C–C bond-forming reactions, giving highly versatile β -amino carbonyl compounds. This review predominantly focuses on recent developments in catalytic enantioselective and diastereoselective processes of direct, indirect, and vinylogous Mannich reactions using both metal-based catalysts as well as organocatalysts.

2. New: Science of Synthesis Reference Library

The Reference Library comprises volumes covering special topics of organic chemistry in a modular fashion, with six main classifications: 1) classical, 2) advances, 3) transformations, 4) applications, 5) structures, and 6) techniques. With expert evaluated content focusing on subjects of particular current interest, the SOS Reference Library complements the SOS Knowledge Updates to make SOS the complete information source for the modern synthetic chemist.

This release includes one new reference library volume: *Catalytic Oxidation in Organic Synthesis* (K. Muñiz) i.e. a total of 878 pages.

Overview of Content Availability in SOS 4.9, December 2017

Work	Text and Graphics Available?	Structure/Reaction Search Available?
Houben-Weyl Series	Yes, scanned PDFs available for browsing and download	No, not structure searchable
Science of Synthesis Original Series Vols. 1–48	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable
Science of Synthesis Knowledge Updates 2010, 2011, 2012, 2013 and 2014 (Vols. 1–4)	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable
Science of Synthesis Knowledge Updates 2015 (Vol. 1 and 2), 2016 (Vol. 1–3), 2017 (Vol. 1–3)	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable
Science of Synthesis Reference Library: Stereoselective Synthesis (Vols. 1–3)	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable
Science of Synthesis Reference Library: Asymmetric Organocatalysis (Vols. 1 and 2)	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable
Science of Synthesis Reference Library: Water in Organic Synthesis	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable
Science of Synthesis Reference Library: Cross Coupling and Heck-Type Reactions (Vols. 1–3)	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable
Science of Synthesis Reference Library: Multicomponent Reactions (Vols. 1 and 2)	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable
Science of Synthesis Reference Library: C–1 Building Blocks in Organic Synthesis (Vols. 1 and 2)	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable
Science of Synthesis Reference Library: Biocatalysis in Organic Synthesis (Vols. 1–3)	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable
Science of Synthesis Reference Library: Catalytic Transformations via C–H Activation (Vols. 1 and 2)	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable
Science of Synthesis Reference Library: Applications of Domino Transformations in Organic Synthesis (Vols. 1 and 2)	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable
Science of Synthesis Reference Library: Metal-Catalyzed Cyclization Reactions (Vols. 1 and 2)	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable
Science of Synthesis Reference Library: N-Heterocyclic Carbenes in Catalytic Organic Synthesis (Vols. 1 and 2)	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable
Science of Synthesis Reference Library: Catalytic Oxidation in Organic Synthesis	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable