

Release: SOS 4.10, March 2018



What's
New?

Software

1. The graphical and text abstracts for the *Science of Synthesis Knowledge Update* and *Reference Library* volumes are now available in the Explore Contents Tab.
2. The interface has been changed so that the Query Tab (text and structure/reaction search) is the starting point for the user and the Training & Support materials have been moved to a Training & Support Tab. The Thieme corporate color code (blue-blue-white) has been implemented.

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 2018/1 highlights:

- A new chapter on **silver-promoted coupling reactions** (*J.-M. Weibel, A. Blanc, and P. Pale*).
- An update on **1-(organo)alkynes** (*A. Ulfkjær and M. Pittelkow*) covering sulfur-, selenium-, and tellurium-substituted alkynes, including both the synthesis and applications of these molecules, which are of importance as building blocks and intermediates in organic synthesis.
- Updates on the synthesis of phenols by substitution, elimination, and rearrangement reactions, and on the modification of **phenols** (*C. González-Bello*). Phenols occur widely in natural and synthetic compounds and these chapters review new and improved approaches to this key functionality.
- An update on **arylphosphinic acids** and derivatives (*D. Virieux, T. Ayad, J.-L. Pirat, and J.-N. Volle*) covering progress made over the last decade in the synthesis of this important class of organophosphorus compound.
- An update on the **synthesis of heteroatom-substituted allenes** (*A. S. K. Hashmi*) covering the synthesis of both the allene functionality and the installation of heteroatoms onto a pre-existing allene.
- A new chapter on **immobilized biocatalysts and their application in flow chemistry** (*M. Bajić, P. Žnidaršič-Plazl, M. Kingston, and V. Hessel*). Both biocatalysis and flow chemistry have attracted intense interest recently and their combination allows the practitioner to achieve the exquisite selectivity associated with biocatalysts while taking advantage of the ease of separation and practical advantages offered by the use of a heterogeneous catalyst in a flow reactor.

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 Reduction in Organic Synthesis, Vol. 1* (J. G. de Vries) i.e. a total of 442 pages.

This volume includes the latest developments, as well as selective coverage of more well-established methods, in the field of catalytic reductions. Both heterogeneous and homogeneous catalytic systems are covered, and enantioselective methodology is well represented. Furthermore, research on the conversion of renewable resources into fuels and chemicals has given a great impetus to the field, as deoxygenations are often the first step in the conversion of biomass and this can often be achieved by hydrogenation or hydrogenolysis. This volume covers hydrogenation of alkenes, polyenes, arenes, hetarenes, alkynes, and allenes. Additional topics include alcohol reduction, ether hydrogenolysis, and the reduction of carbonates and carbon dioxide.

Overview of Content Availability in SOS 4.10, March 2018

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), 2018 (Vol.1)	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
Science of Synthesis Reference Library: Catalytic Reduction in Organic Synthesis (Vol. 1)	Yes, text searching available and chapter PDFs available for download	Yes, reactions and structures indexed and searchable