# Release: SOS 4.12, October 2018


## 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 2018/3 highlights:**

- A major revision of the chapter on **benzo[*c*]furans** or **isobenzofurans** *(H Kwiecień)*, including 1,3-dihydrobenzo[*c*]furan-1(3*H*)-ones [also called 1,3-dihydroisobenzofuran-1(3*H*)-ones or phthalides]. While most benzo[*c*]furans are very reactive and can normally only be isolated after trapping (for example by Diels–Alder reaction with dienophiles), 1,3-diarylbenzo[*c*]furans are much more stable.
- Updates on the synthesis of **isoquinolinones** *(V. A. Glushkov and Yu. V. Shklyaev)*, **thiocarbonic acids and derivatives** *(R. A. Aitken)*, ***S,N*-acetals,** and ***N,N*-acetals** *(Y. Saikawa and M. Nakata)*, as well as the cyclic ***S,S*-acetals 1,3-dithianes** and **1,3-dithiepanes** *(Y. Mutoh)* and the synthesis of **phenols from nonaromatic precursors** *(C. González-Bello)*.

**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: ***Flow Chemistry in Organic Synthesis*** (*T. F. Jamison and G. Koch*), i.e. a total of 590 pages.

The aim of this work is to convey the practice, power, and potential of flow chemistry to a larger audience.

An emerging and strengthening trend is that flow chemistry is much more than the adaption of batch processes to flow systems. Rather, flow chemistry offers a new paradigm in the way we think about chemical synthesis. This volume demonstrates the enabling power of continuous flow to access new reaction types and different chemistry space and, to this end, it has been compiled by a team of pioneers and leaders, who present both the practical and conceptual aspects of this rapidly growing field. Included are the principles of reactor design, automation, and separations/purifications in flow systems, applications in photochemistry, electrochemistry, gaseous systems, immobilized reagents and catalysts, and multistep processes.
The synthesis of peptides, carbohydrates, and pharmaceuticals is covered and several chapters give insight into the use of flow in an industrial context.

Thieme

## Overview of Content Availability in SOS 4.12, October 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 (Vols. 1 and 2), 2016 (Vols. 1–3), 2017 (Vols. 1–3), 2018 (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 |
| Science of Synthesis Reference Library: Catalytic Reduction 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: Flow Chemistry in Organic Synthesis | Yes, text searching available and chapter PDFs available for download | Yes, reactions and structures indexed and searchable |