

# Release: SOS 4.7, March 2017



## Software

1. **Dedicated Citation Search Tool:** This newly implemented search tool allows the user who has a citation of a Science of Synthesis article to access the content quickly and easily.
2. **Hide All Reactions:** “Hide All Reactions” option for the results of a structure/reaction search. This allows the user to switch off the default “Show All Reactions” if necessary and to toggle between the two options.
3. **Bug Fixing:** Reported bugs fixed and general improvements to product software.

## Content

### New: Science of Synthesis Reference Library (Special Topics)

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 will see the addition of **2 new reference library volumes: *N-Heterocyclic Carbenes in Catalytic Organic Synthesis* Vols. 1 and 2** (edited by S. P. Nolan and C. S. J. Cazin) i.e. a total of 1,070 printed pages. There are contributions from 79 expert authors.

### **N-Heterocyclic Carbenes in Catalytic Organic Synthesis, highlights:**

- These SOS volumes provide a user's guide to NHC chemistry and catalysis, thus facilitating the introduction of NHCs to novices and also helping to expand the repertoire of synthetic tools available to the more-advanced researcher, enabling the design of new catalysts and reactions.
- Volume 1 provides a detailed introduction to NHCs, with discussion of their architectures and steric and electronic properties. The synthesis of NHC precursors, NHCs themselves, and metal–NHC complexes is described. The use of NHCs in cross-coupling chemistry (carbon–carbon and carbon–heteroatom bond formation), C–H bond functionalization, and addition reactions to carbon–carbon multiple bonds is reviewed.
- Volume 2 covers the use of NHCs in the various types of metathesis reaction, polymerization, cyclization reactions, oxidation reactions, and carbonylation/carboxylation reactions. The use of NHCs in asymmetric transition-metal catalysis is highlighted, as are recyclable systems (biphasic, covalently immobilized, and ionically tagged systems), NHCs in flow chemistry, and recent advances in the use of NHCs in organocatalysis.

## Overview of Content Availability in SOS 4.7, March 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)	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