

Science of Synthesis



Quick Start Guide

Home Page

Main menu (see next page)

Search the complete text of SOS

The screenshot shows the Science of Synthesis (SOS) home page. At the top left is the Thieme Science of Synthesis logo. A search bar is located at the top center. On the right side of the top navigation bar, there are links for 'Enter Access Code', 'Thieme IP Account', and 'Login'. A main banner reads 'Welcome to SOS! The Essential Knowledge Platform for Organic Chemistry'. Below the banner, the page is titled 'Science of Synthesis' with a subtitle: 'Science of Synthesis: Your expert guide to making molecules. Find the best methods, chosen by experts, for achieving the organic transformation you need.' The main content area features four cards: 'New in SOS' (with a 'What's New?' button), 'SOS for Teaching and Learning' (with an 'Access the Quick Links' button), 'SOS Alerts' (with a 'Sign up here!' button), and 'What is SOS?' (with a 'Find out more here' button). A left-hand navigation menu is visible, containing links for Home, Structure/Reaction Search, Discover Reviews, Navigate SOS, Houben-Weyl, Playlists, and Help.

Login to your personal account for creating playlists, saving searches, etc.

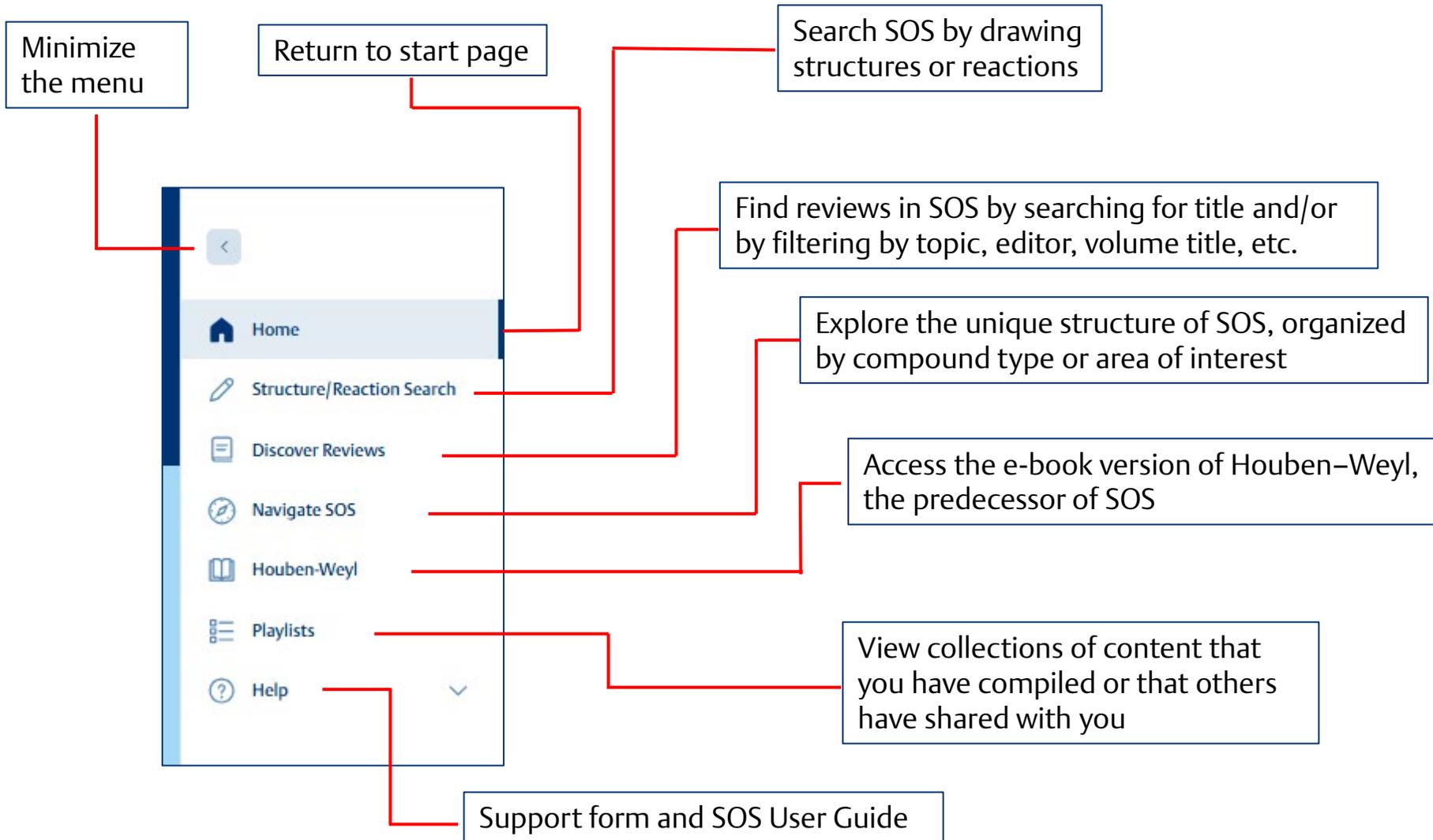
Quick links to coverage of name reactions, etc.

Information about SOS: Editorial Board and Editors guidelines for authors, information for librarians, etc.

Highlights from new content

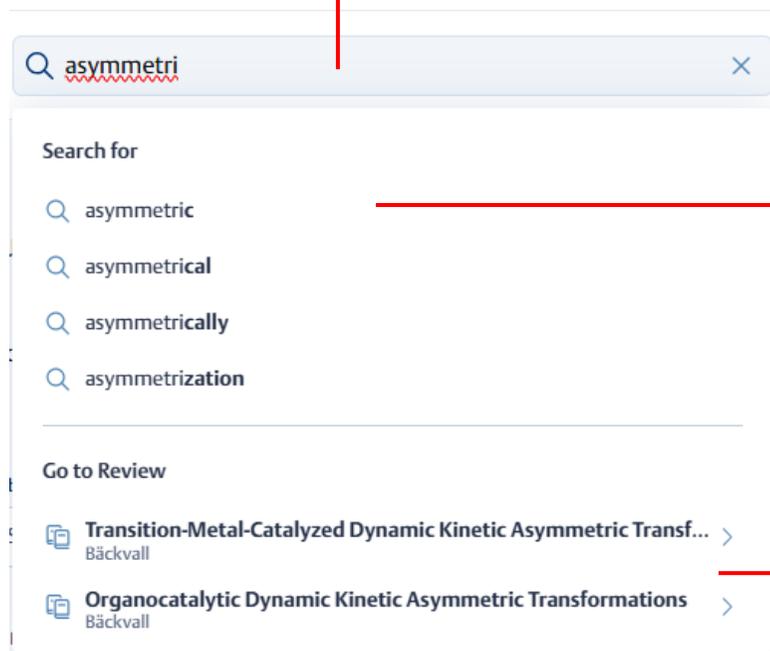
Sign up to content alerts

Main Menu (visible on all pages)



Text Search (visible on all pages)

Search as you type: suggestions appear as you type in the search field. The more you type, the more specific the suggestions



Suggested search terms: clicking on one of these searches the full content of SOS for this term

Suggested reviews: If the term you have typed appears in the title of a review, it appears here. Note, only two suggestions appear here, so type more to get more specific suggestions

Tip: The text search bar at the very top of every page searches the whole content of SOS. Other search bars that appear lower down on certain pages search specific parts of the content/navigation.

Text Search Results

Filter according to the main topic(s) of a review, allowing you to quickly see all reviews on a particular area. Additional filters for title, volume, editor, and category

Search results showing subsection title, context (breadcrumb trail), and bibliographic details

Your Search Results

Structure Editor

Filter by:

SOS-Topic Manuscript Title Author / Editors Original Volume Title Show all

Sort by: Relevance

115 results for your search "copper catalyzed allylation" without filter sorted by Relevance

Search Results

2.11.5.6.2 Variation 2: Copper-Catalyzed Allylation of Zirconacyclopentenes
Organometallic Complexes of Zirconium and Hafnium > 2.11.5 Product Subclass 5: Five-Membered Metallocycle-Bis(η^5 -cyclopentadienyl) Derivatives of Oxidation State Four > 2.11.5.B Applications of Product Subclass 5 in Organic Synthesis > 2.11.5.6 Method 6: C-C Bond Formation by the Transition-Metal-Catalyzed Reaction of Five-Membered Compounds of Groups 7-3 (Mn..., Cr..., V..., Ti..., Sc..., La, Ac...) [Vol. 2], 2003
Negishi E, Takahashi T.

2.11.5.6.1 Variation 1: Copper-Catalyzed Allylation of Zirconacyclopentadienes
Organometallic Complexes of Zirconium and Hafnium > 2.11.5 Product Subclass 5: Five-Membered Metallocycle-Bis(η^5 -cyclopentadienyl) Derivatives of Oxidation State Four > 2.11.5.B Applications of Product Subclass 5 in Organic Synthesis > 2.11.5.6 Method 6: C-C Bond Formation by the Transition-Metal-Catalyzed Reaction of Five-Membered Compounds of Groups 7-3 (Mn..., Cr..., V..., Ti..., Sc..., La, Ac...) [Vol. 2], 2003
Negishi E, Takahashi T.

26.9.5.1.1.2.2 Variation 2: Transition-Metal-Catalyzed Allylation of Acylsilanes and Acylstannanes by Allyl Trifluoroacetates, and Acylzirconocenes by Allyl Halides and 4-Toluenesulfonates
Enones (Update 2013) > 26.9.5.1 β,γ -Unsaturated Ketones > 26.9.5.1.1 Synthesis of β,γ -Unsaturated Ketones > 26.9.5.1.1.2 Method 2: Allylation of Acyl Compounds and Nitriles by Allyl Derivatives
Knowledge Updates 2013/4, 2013
Collings J.

4.4.40.72.2.1.1 Variation 1: Allylation of Carbonyl Compounds and Imines
Allylsilanes (Update 2020) > 4.4.40.72.2 Applications of Allylsilanes > 4.4.40.72.2.1 Method 1: Allylation of C=O and C=N Compounds
Knowledge Updates 2020/1, 2020
Okamoto K, Ohe K.

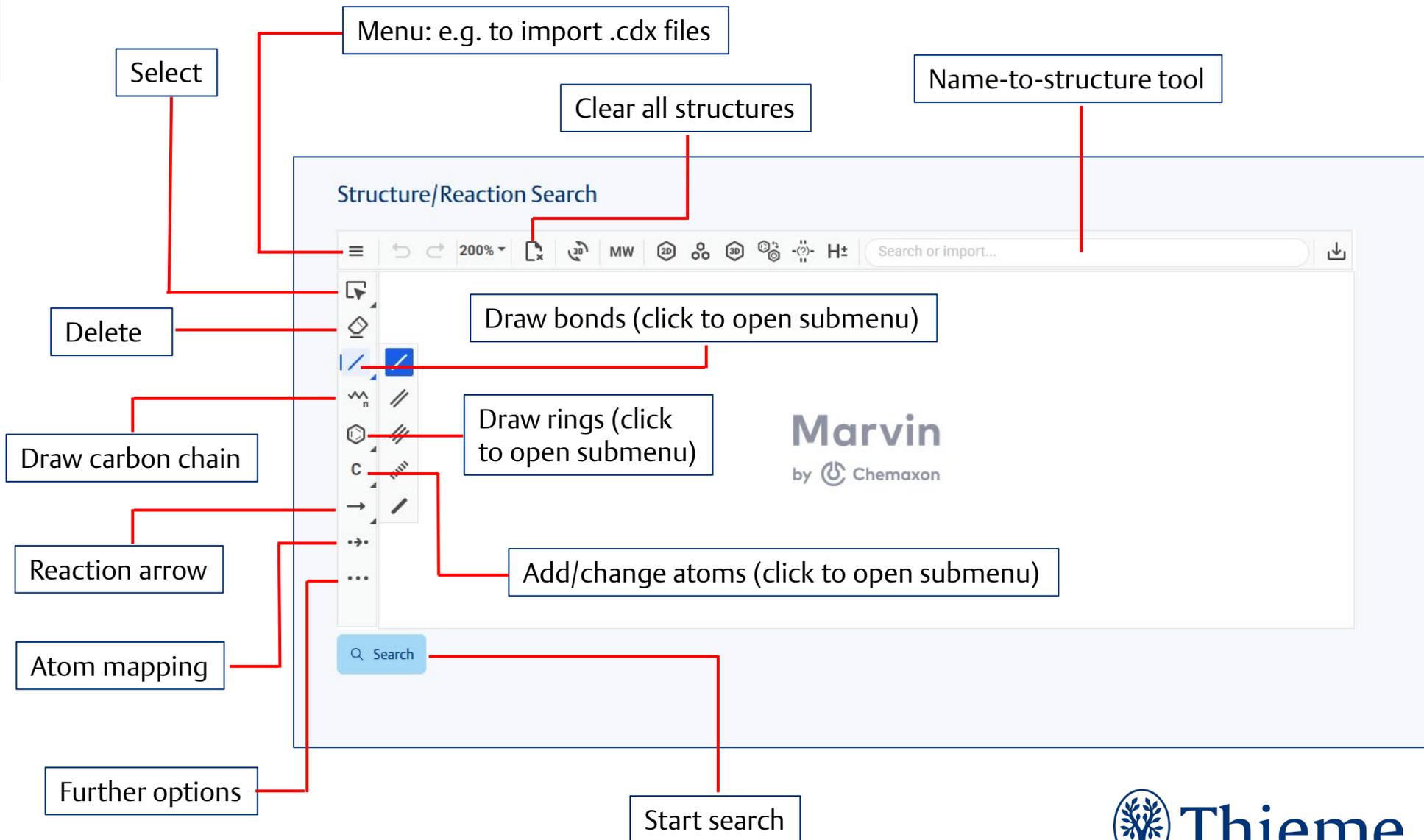
Copper(I) Hydride Catalyzed Transformations
Base-Metal Catalysis 1, 2022
Xiong T, Li Y.

1.2.2.2.5 Enantioselective Allylation of Ketones with Allene
Copper(I) Hydride Catalyzed Transformations > 1.2.2 Enantioselective Hydrocarbonation > 1.2.2.2 Enantioselective Hydrocarbonation of Alkenes
Base-Metal Catalysis 1, 2022
Xiong T, Li Y.

Sort by relevance or publication year

Save search results to a playlist - requires being logged in to a (free) personal account

Structure/Reaction Search



Structure/Reaction Search Results (Compact View)

Filter options

Further filter options

Save search results to a playlist - requires being logged in to a (free) personal account

Open structure editor to modify your search

Your Search Results

Structure Editor

Filter by:

SOS-Topic Manuscript Title Author / Editors Original Volume Title Show all

Sort by: Relevance

Save search

4 additional hits for your structure search without filter sorted by Relevance

Search Results Show Structures/Reactions

6H-Dibenzo[b,d]pyran-6-ones (Update 2020)
Knowledge Updates 2020/3, 2020
Gao W, Tian J.

Nitroarenes
AreneX (X = N, P) [Vol. 31b], 2007
Attkin K, Attkin R.

Intermolecular Heck Reaction of Electron-Poor Alkenes with Arene- or Heterenecarboxylic Acids or Derivatives, or Related Compounds
Cross Coupling and Heck-Type Reactions 3, 2013
Zhang M, Su W.

Intermolecular Heck Reactions with Cyclic Alkenes as Reaction Components
Cross Coupling and Heck-Type Reactions 3, 2013
Coeffard V, Guiry P.

Hitlist showing title and bibliographic. Clicking on a title takes you to the first match in that review

Switch to “expanded view” to show structures/reactions

Structure/Reaction Search Results (Expanded View)

Results are grouped by review, with all match types (exact, substructure, similar) included as default. Reviews with most matches are ranked highest. When filters are applied, results are automatically updated and reranked.

Your Search Results

Structure Editor

Filter by: SOS-Topic Manuscript Title Author / Editors Original Volume Title SOS-Category Sort by: Relevance

Match Types Role Types Show less

4 additional hits for your structure search without filter sorted by Relevance

Search Results Show Structures/Reactions

6H-Dibenzo[b,d]pyran-6-ones (Update 2020)
Knowledge Updates 2020/3, 2020
Gao W, Tian J.

Nitroarenes
AreneX (X = N, F) [Vol. 3 1b], 2007
Aitken K, Aitken R.

11 + 12 $\xrightarrow[\text{NMP, 165 } ^\circ\text{C}]{\text{Pd(acac)}_2, \text{CuCl, DPEphos, K}_2\text{CO}_3}$ 13

7 $\xrightarrow[90\%]{95\% \text{ HNO}_3, 70-80 \text{ } ^\circ\text{C}}$ 8

9 $\xrightarrow[90\%]{\text{HNO}_3, \text{SrCl}_4, \text{CH}_2\text{Cl}_2, -25 \text{ } ^\circ\text{C}}$ 10

Slide to hide
structures/reactions

Matching
structures/reactions as
they appear in the
review. Click on an
individual reaction to be
taken to that place in the
review.

Content Page

Link to location of this review in the SOS Navigation

Search the text of the current review

Download pdf of whole review

Share by email or on Facebook

Bibliographic details

Change text size

Expandable table of contents of review

Add this content to a playlist for future reference or for sharing with others

Main content (scroll down to view more)

Abstract

Download citation in RIS format for reference management software

Move to previous/next subsection in the review

The screenshot shows a digital content page for a review titled "Fluorination Reactions under Flow Conditions" by Hideki Amii. At the top, there is a navigation icon and a prompt to check for updated content. Below this, the author's name "Jean-François Paquin" and the title are displayed. A search bar is present, and there are icons for PDF, Playlist, and Share. The main content area includes an abstract with a diagram showing a fluorinating reagent reacting with an organic molecule to form an organofluorine compound. The abstract text discusses the importance of fluorine-containing organic compounds and the development of flow synthesis. A "Quick access" section provides links to various subsections of the review. At the bottom, there is a "Source" section with citation information and a "Download citation (RIS)" button. Navigation buttons for "Back" and "Next" are also visible.

Discover Reviews

Search for reviews by title

Filter according to the main topic(s) of a review, allowing you to quickly see all reviews on a particular area. Additional filters for volume, editor, and category

Discover Reviews

Search for title

Sort by: Title A-Z

Filter by: SOS-Topic Author / Editors Original Volume Title SOS-Category

Your filter selection returned 2596 results.

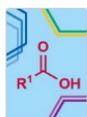
 Arene C–H Activation: Arylation Using a Palladium(0) Catalyst Jin-Quan Yu	 Arene C–H Activation: Arylation Using a Ruthenium(II) Catalyst Jin-Quan Yu
 Arene C–H Activation: Metal-Catalyzed Alkylation Using Alkenes Jin-Quan Yu	 Arene C–H Activation: Vinylation Using a Rhodium(III) Catalyst Jin-Quan Yu
 C–H Activation: C–C Bond Formation Using Carbenes Jin-Quan Yu	 C–H Activation: C–C Bond Formation Using Radicals Jin-Quan Yu
 O,P-Acetals (Update 2016) Toshiaki Murai	 (Arylimino)phosphines and (Arylimino)phosphoranes Christopher A. Ramsden

Sort A–Z or by publication year

Reviews with graphic showing structure of main compounds covered or volume cover

Navigate SOS

Your filter selection returned 5 results.



25 items

Functional Groups



9 items

Hetarenes



7 items

Hydrocarbons



9 items

Organometallics



28 items

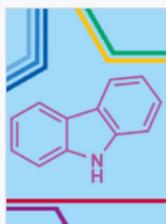
Special Topics, Trends, and Innovation

Explore the unique structure of SOS, organized by molecule type or functional group

Misc Curated by: SOS Team

Hetarenes

Fold all



Share

Search within Hetarenes

Hetarenes (302)

- + Fully Unsaturated Small Ring Heterocycles and Monocyclic Five-Membered Hetarenes with One Heteroatom (Vol. 9) (27)
- + Fused Five-Membered Hetarenes with One Heteroatom (Vol. 10) (42)
- + Five-Membered Hetarenes with One Chalcogen and One Additional Heteroatom (Vol. 11) (39)
- + Five-Membered Hetarenes with Two Nitrogen or Phosphorus Atoms (Vol. 12) (11)
- + Five-Membered Hetarenes with Three or More Heteroatoms (Vol. 13) (36)
- + Six-Membered Hetarenes with One Chalcogen (Vol. 14) (35)
- + Six-Membered Hetarenes with One Nitrogen or Phosphorus Atom (Vol. 15) (28)
- + Six-Membered Hetarenes with Two Identical Heteroatoms (Vol. 16) (47)
- + Six-Membered Hetarenes with Two Unlike or More Than Two Heteroatoms and Larger Hetero-Rings (Vol. 17) (37)

Click on an area of interest to dive deeper into the hierarchy

Navigate SOS

Misc Curated by: SOS Team

Hetarenes

Search within Hetarenes

- **Hetarenes (302)**
 - Fully Unsaturated Small Ring Heterocycles and Monocyclic Five-Membered Hetarenes with One Heteroatom (Vol. 9) (27)
 - + Fused Five-Membered Hetarenes with One Heteroatom (Vol. 10) (42)
 - + Five-Membered Hetarenes with One Chalcogen and One Additional Heteroatom (Vol. 11) (39)
- **Five-Membered Hetarenes with Two Nitrogen or Phosphorus Atoms (Vol. 12) (11)**
 -  **Five-Membered Hetarenes with Two Nitrogen or Phosphorus Atoms (Vol. 12): Introduction**
Source: *Five-Membered Hetarenes with Two Nitrogen or Phosphorus Atoms (Vol. 12)*, Neier R, ed. Stuttgart: Thieme; 2002.
Neier R
 -  **Pyrazoles**
Source: *Pyrazoles*, Neier R, ed. Stuttgart: Thieme; 2002.
Stanovnik B, Svete J
 -  **Pyrazoles (Update 2017)**
Source: *Pyrazoles (Update 2017)*, Carreira E, ed. Stuttgart: Thieme; 2017.
Göttinger A, Müller T
 -  **1H- and 2H-Indazoles**
Source: *1H- and 2H-Indazoles*, Neier R, ed. Stuttgart: Thieme; 2002.
Stadlbauer W
 -  **1H- and 2H-Indazoles (Update 2011)**
Source: *1H- and 2H-Indazoles (Update 2011)*, Carreira E, ed. Stuttgart: Thieme; 2011.
Sapeta K, Kerr M
 -  **Imidazoles**
Source: *Imidazoles*, Neier R, ed. Stuttgart: Thieme; 2002.
Grimmett M
 -  **Benzimidazoles**
Source: *Benzimidazoles*, Neier R, ed. Stuttgart: Thieme; 2002.
Grimmett M
 -  **Benzimidazoles (Update 2019)**
Source: *Benzimidazoles (Update 2019)*, Carreira E, ed. Stuttgart: Thieme; 2019.
Irudayanathan F, Lee S

Reviews are presented in a systematic order, with updates shown next to the original content. Where relevant, a typical structure gives a graphical depiction of the main focus of the review. Clicking on an entry takes you to the review

Useful Links

Use SOS: science-of-synthesis.thieme.com

Discover more tips for SOS: science-of-synthesis.thieme.com/ebooks/cs_27530622

Learn more about SOS and the people behind it: sos-chemistry.thieme.com

Contact the SOS Team: science-of-synthesis.thieme.com/p/support