Reading the Scientific Literature

Accessing the Literature

CH801

Sept 21, 2004
• How do I look for what I need?
  – SciFinder Scholar
  – Databases

• What literature resources are available?
  Journals, Books, and Patents
  – Online
  – Libraries
    – BU and MIT and otherwise
Search Collections

- Library catalogs
- Indexes & databases (SEL list)
- Ejournals A-Z (SEL list)
- Ejournals by subject
- Eresources by subject

Guides & Tutorials

- Tutorial for BI 107
- Finding articles
- Patents searching
- Standards sources
- Subject Guides

How To...

- Connect from off-campus
- Find journal articles
- Locate journals
- Renew books online
- Request a BLC card
- Request interlibrary loan
- Request item from storage
- View a reserve list

Facts & Services

- Hours/directions
- Floorplans
- Staff contacts
- Borrowing
- Collections
- Copying/printing
- Instruction
- Interlibrary loan
- Reserves
- Storage

News

We are pleased to announce that Boston University's Medical Library and Mugar Memorial Library have jointly purchased access to the Blackwell Science, Technology and Medicine electronic journal collection. Access to these journals will be available through the Library's Ejournals A-Z webpage.

Online user-initiated book loans featured in Consortium Virtual Catalog.

More Library News...
Boston Library Consortium

Boston Library Consortium catalogs

<table>
<thead>
<tr>
<th>Virtual Catalog</th>
<th>(joint catalog of books held in participating Consortium libraries, identified by asterisks below; BU students, faculty, and staff can submit requests for book loans directly from these libraries when using the Virtual Catalog)</th>
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<td><strong>Boston College Libraries</strong></td>
<td><strong>U of Connecticut Libraries</strong></td>
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<td><strong>Boston University Libraries</strong> *</td>
<td><strong>UMass Boston Library</strong> *</td>
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<td><strong>UMass Dartmouth Library</strong> *</td>
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<td><strong>Brown University Library</strong> *</td>
<td><strong>UMass Lowell Libraries</strong> *</td>
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<td><strong>UMass Worcester Library (medical)</strong> *</td>
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<td><strong>U of New Hampshire Library</strong></td>
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<td><strong>Wellesley College Library</strong> *</td>
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* Participants in the Virtual Catalog.

Please note that Harvard University, Emerson College, and Simmons College are NOT Consortium Libraries.

Databases and Journals

- SciFinder Scholar
- Web of Science
- Digital Dissertation Abstracts
- PubMed/NCBI
- E-Journals
- **ACM Digital Library**: Search or browse all ACM journals and conference proceedings. Display full text of articles.
- **AGRICOLA** (Agricultural Online Access) 1966+
- **Alt-Health Watch**
- **Applied Science & Technology Full Text** 1983+
- **arXiv.org e-Print archive** 1992+
- **ASFA I: Biological Sciences and Living Resources** 1971+
- **BIOSIS** ( Biological Abstracts) 1989+
- **Books In Print**
- **CINAHL** (Ovid: in-library use or password)
- **Compendex** EngineeringVillage2 1970+ *A combined search is now possible of COMPENDEX & INSPEC*
- **Computer Science Index** (new vendor: Ebsco 6/7/04)
- **Computer Science Preprint Server**
- **Current Index to Statistics**
- **Dissertation Abstracts** (Proquest Digital Dissertations) 1861+
- **Energy Citations Database** 1948+
- **Environmental Issues & Policy Index** 1973+
- **General Science Full Text** (WilsonWeb) 1984+
- **GeoRef** 1785+
- **IEEE Computer Society Digital Library** Searchable (22) IEEE Computer Society periodicals from 1988+ and most Computer Society conference proceedings 1995 +
- **IEEE Xplore** - Searchable full text access to over 100 IEEE journals from 1998+
- **Ingenta** (unrestricted access)
- **INSPEC** 1968+ EngineeringVillage2 *A combined search is now possible of COMPENDEX & INSPEC*
- **Jahrbuch Project** (Jahrbuch über die Fortschritte der Mathematik) 1868-1942
- **KNOVEL** ON TRIAL until 9/2004
- **MathSciNet** 1940+
- **Medline** 1966+ (via Ovid: in-library use or password)
- **Pollution Abstracts** 2000+
- **PrimateLit** 1940+
- **Proteome Bioknowledge Library** (Quick Access-- Databases)
- **PsycINFO** 1872+ EBSCO
- **PubMed** 1966+ (unrestricted access)
- **SciFinder Scholar** (Chemical Abstracts) 1967+
- **Sport Discus** 1975+
- **U.S. Patents** 1975+
- **Web of Science** (Science Citation Index) 1988+
- **WorldCat**
SciFinder Scholar provides electronic access to the Chemical Abstracts (CA) database for B.U. faculty, staff, and students. SciFinder Scholar is a proprietary software program based on client-server technology. SciFinder Scholar provides a graphic interface that permits easy, natural language searching by subject, author, and chemical substance. Both PC and Macintosh versions of the client are available.

The Chemical Abstracts database (1907 to present) is the largest and most comprehensive database of chemical literature in the world. It covers core areas of chemistry and also chemistry-related sciences such as biotechnology, agricultural chemistry, environmental sciences, medicine, toxicology, food sciences, textiles, petroleum products and packaging, among others.

Access is available 24 hours a day but is limited to 2 (two) simultaneous users.

The "2004" version of SciFinder Scholar is available for downloading from this web site as of Sept. 15, 2004.

Please read the:

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Click HERE to download the PC or MAC version of SciFinder Scholar.

If you have questions regarding either access to or use of SciFinder Scholar, please contact a reference librarian at:

Science & Engineering Library
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(517) 353-0174

SEL Home

UP
SciFinder Scholar Download Instructions

Boston University has negotiated a site license agreement for SciFinder. Under the terms of this agreement, the University is allowed to distribute this software to all faculty, staff, and registered students. The software may be used on institutionally owned computers and on computers owned by faculty, staff, and students of the University. To access the SciFinder database, the user must be at a pc/mac that meets one of the following requirements:

- PC/Mac is on the B.U. campus, or;
- PC/Mac is connected to the B.U. campus network via the PPP modem pool, or;
- PC/Mac has connected to the B.U. VPN network. [Users of cable modems such as COMCAST Broadband will want to use the VPN network in order to access SciFinder Scholar.]

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Please note that you must have a Boston University Kerberos login/password to download the client software. For most users this is their ACS login/password.

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Please select your type of computer

PC  Mac

Back to the SciFinder Scholar main page

September 15, 2004
Download SciFinder Scholar version 2004

IBM PC or Compatible Running Windows - System Requirements

- Computer: PC with at least a Pentium processor and 50 MB of available hard disk space.
- Microsoft Windows 95/98/Me/NT/2000/XP with minimum 64MB RAM
- Monitor: SVGA color monitor.
- Printer: a high-quality graphics printer, e.g., laser or inkjet, is recommended.
- Web Browser: Netscape Version 4 or higher, or Internet Explorer 4 or higher. A web browser is needed to access full text via ChemPort, the online help messages, and web resources within the Tools menu. Java, JavaScript and Cookies must be enabled for online help and some features within ChemPort. ActiveX must be enabled in Microsoft Internet Explorer for ChemPort Reference Linking.
- Adobe Acrobat version 4+ is needed to access the PDF version of SciFinder Scholar 2004 User Guide.

IBM PC or Compatible Running Windows - Downloading and Installing

Downloading

- Make sure you have a Temp directory/folder on your hard disk [e.g. C:\TEMP].
- Click here to begin downloading the client.
- You will be prompted for your B.U. login username and Kerberos password. [This is the same username/password you use on ACS.] After you press the continue button, the download will begin.
- A Save As box should appear. In the Save In area at the top of the box, make sure your Temp folder is listed. In the File Name area at the bottom, the name should appear as scholar.exe.
- Click on the Save Button, which will begin downloading the file from the Web to your Temp folder on your hard drive.
- Once downloading begins, you will see another box appear called Saving Location.
- This box will disappear once the file scholar.exe is completely downloaded. This means it is now in the Temp folder on your hard drive.

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Decarboxylative Aldol Reactions of Allyl \( \beta \)-Keto Esters via Heterobimetallic Catalysis. Journal of the American Chemical Society (2004), 126(37), 11440-11441 CODEN: JACSAT; ISSN: 0002-7863; English

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About
Decarboxylative Aldol Reactions of Allyl β-Keto Esters via Heterobimetallic Catalysis

Sha Lou, John A. Westbrook, and Scott E. Schaus*

Department of Chemistry, Metcalf Center for Science and Engineering, Boston University, 590 Commonwealth Avenue, Boston, Massachusetts 02215

Received July 6, 2004; E-mail: seschaus@bu.edu

The direct aldol reaction is a versatile approach toward the construction of building blocks for use in synthesis.¹ Selective formation of the enolate in the presence of the aldehyde poses a significant challenge in the development of a direct aldol reaction. Recent advances toward this goal include metal-catalyzed deprotonation of the nucleophile,² transition metal-mediated reductive aldol condensations of unsaturated carbonyl compounds,³ decarboxylative aldol reactions of malonic acid half thiesters,⁴ and proline-catalyzed aldol condensations of aldehydes and ketones.⁵ Although considerable progress has been made, transition metal-mediated direct aldol reactions are an underdeveloped approach.⁶ The propensity of transition metals to form a carbon-bound enolate that is less reactive toward nucleophilic addition has limited the ability to develop a catalytic reaction (eq 1).⁷ However, under the appropriate conditions, an in situ generated transition metal complex may serve as an intermediate in an aldol reaction process.⁸ This report describes a heterobimetallic catalyst system that promotes the direct aldol reaction of allyl β-keto esters and aldehydes.⁹

![Chemical Structure]

Table 1. Decarboxylative Aldol Reactions of β-Keto Ester 3a

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<th>Entry</th>
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<td>10</td>
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<td>93</td>
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* Reactions were carried out using 2.5 mmol allyl 4,4-dimethyl-3-oxopentanoate, 1 mmol 3-phenylpropan-2-one, and 2.5 mol % Pd₂dba₃ in CH₂Cl₂ (0.5 M) at room temperature for 24 h under Ar, followed by flash chromatography on silica gel. In the absence of metal salt, 5 mol % ligand was added to the reaction; with the addition of metal salt, 10 mol % ligand was added; dppe: 1,2-bis(diphenylphosphino)ethane, dppp: 1,1′-bis(diphenylphosphino)ferrocene, BINAP: (+)-2,2′-bis(diphenylphosphino)-1,1′-binaphthyl, DIOP: (±)-O-isopropylidene-trans-2,3-dihydroxy-1,4-bis-(diphenylphosphino)butane. 5 mol % metal salt was added to the reaction.
Cited Reference Search

Selected database(s) and timespan:
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Find the citations to a person's work by entering the person's name, the work's source, and/or publication year.

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McDougall N T

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Select only those cited references you want to include,
then click FINISH SEARCH.
(Hint: Look for variants. Papers are sometimes cited incorrectly.)

View the articles that cite the selected references.
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Asymmetric Morita-Baylis-Hillman reactions catalyzed by chiral Bronsted acids

Title: Asymmetric Morita-Baylis-Hillman reactions catalyzed by chiral Bronsted acids

Author(s): McDougal NT, Schaus SE


Document Type: Article

Language: English

Cited References: 35 Times Cited: 11

KeyWords Plus: DIELS-ALDER REACTION; ORGANIC CATALYSIS; STRATEGIES; ALDEHYDES; CYCLOADDITION; ADDUCTS; AMINES; ROUTE

Addresses: Schaus SE (reprint author), Boston Univ, Metcalf Ctr Sci & Engr, Dept Chem, 50 Commonwealth Ave, Boston, MA 02215 USA

E-mail Addresses: seschaus@chem.bu.edu

Publisher: AMER CHEMICAL SOC, 1155 16TH ST, NW, WASHINGTON, DC 20036 USA

Subject Category: CHEMISTRY, MULTIDISCIPLINARY

IDS Number: 729QG

ISBN: 0002-7863

Record 1 of 1
Citing Articles--Summary

Asymmetric Morita-Baylis-Hillman reactions catalyzed by chiral Bronsted acids
MCDUGAL NT, SCHAUSS SE
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY
125 (40): 12004-12005 OCT 8 2003

These documents in the database cite the above record:

11 results found  Go to Page: [ ] of 2
Records 1 -- 10

   Development of bis-thiourea-type organocatalyst for asymmetric Baylis-Hillman reaction
   TETRAHEDRON LETTERS 45 (29): 5589-5592 JUL 12 2004

2. Lee KY, Gowrisankar S, Kim JN
   N,N,N'N'-tetramethyl-1,3-propanediamine as the catalyst of choice for the Baylis-Hillman reaction of cycloalkenone: rate acceleration by stabilizing the zwitterionic intermediate via the ion-dipole interaction
   TETRAHEDRON LETTERS 45 (29): 5485-5488 JUL 5 2004

   The azoles: effective catalysts for Baylis-Hillman reaction in basic water solution
   TETRAHEDRON LETTERS 45 (26): 5171-5174 JUN 21 2004

4. Krishna PR, Kannan V, Raddy PVN
   N-methylprolinol catalysed asymmetric Baylis-Hillman reaction
   ADVANCED SYNTHESIS & CATALYSIS 346 (6): 603-605 MAY 2004

5. Rastogi N, Namboothiri INN, Cojocaru M
   alpha-Hydroxymethylation of conjugated nitroalkenes via the Morita-Baylis-Hillman reaction
   TETRAHEDRON LETTERS 45 (24): 4745-4748 JUN 7 2004

   Convenient and efficient reduction of 1,1'-binaphthyls to H-8-1,1'-binaphthyl derivatives with Pd and Ru catalysts on solid support
   JOURNAL OF ORGANIC CHEMISTRY 69 (9): 3222-3221 APR 30 2004

7. Uruguchi D, Terada M
   Chiral Bronsted acid-catalyzed direct Mannich reactions via electrophilic activation
   JOURNAL OF THE AMERICAN CHEMICAL SOCIETY 126 (17): 5356-5357 MAY 5 2004

8. Thadani AN, Stankovic AR, Rawal VH
   Enantioselective Diels-Alder reactions catalyzed by hydrogen bonding

9. Pihko FM
   Activation of carbonyl compounds by double hydrogen bonding: An emerging tool in asymmetric catalysis
Web of Science Results Analysis

11 records. Citing Articles: MCDUGAL NT. Asymmetric Morita-Baylis-Hillman reactions catalyzed by chiral Bronsted acids

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(1 records (9.1%) do not contain data in the field being analyzed.)
Results Analysis

11 records. Citing Articles: MCDOUGAL NT. Asymmetric Morita-Baylis-Hillman reactions catalyzed by chiral Bronsted acids

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Rank results by the selected field.

Use the checkboxes below to view the records.

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View Records
INVESTIGATION AND DEVELOPMENT OF INVERSE ELECTRON DEMAND DIERS-ALDER REACTIONS OF HETERO CYCLIC AZADIENES: I. THERMAL CYCLOADDITION OF 1,2,4-TRIAZINES, A GENERAL PYRIDINE ANNULATION; II. FORMAL TOTAL SYNTHESIS OF STREPTONIGRIN; III. SYNTHETIC STUDIES ON LAVENDAMYCIN (PYRIDINES)

by Panek, James Steven, PhD

University of Kansas, 1984, 190 pages

AAT 8513832
The investigation and development of a general pyridine annulation based on the inverse electron demand Diels-Alder reaction of 1,2,4-triazines (electron-deficient heterocyclic azadienes) with enamines (electron-rich olefins) is described. A formal, total synthesis of streptorignin (1) is detailed and is based on the sequential implementation of two inverse electron demand Diels-Alder reactions: cycloaddition of dimethyl 1,2,4,5-tetrazine-3,6-dicarboxylate (7) with 5-methyl-6-methoxy-5-nitro-2-quinolinyl thioumidate (11d) (construction of the streptorignin ABC ring system) followed by 4+2 cycloaddition of the resulting dimethyl 5-(6-methoxy-5-nitro-2-quinolinyl)-1,2,4-triazine-3,5-dicarboxylate (15) with the morpholine enamine of 2-benzoyloxy-3,4-dimethoxypropophenone (20). Preparation of the streptorignin CD biaryl ring system and completion of the assemblage of the streptorignin carbon skeleton. A synthetic approach to lavandamycin (2a) is detailed and is based on the implementation of the inverse electron demand Diels-Alder reaction of triethyl 1,2,4-triazine-3,5,6-tricarboxylate (4c) with the pyridine enamine of o-bromopropophenone (30); lavandamycin DE ring construction), followed by palladium(II)-mediated (beta)-carboline formation (lavandamycin CDE ring construction). Implementation of a base-catalyzed Friedlander condensation of 2-amino-3-benzoyloxy-4-bromoanilide (48) with 1-acetyl-3-carbomethoxy-4-methyl-(beta)-carboline (41) completed the assemblage of the lavandamycin pentacyclic carbon framework. A preliminary investigation on the structure-activity relationships of a series of compounds possessing partial structures related to the antitumor-antibiotics streptorignin and lavandamycin is described.


Li C, Porco JA Jr.

Department of Chemistry and Center for Chemical Methodology and Library Development, Boston University, Boston, Massachusetts 02215, USA.

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Li C, Porco JA Jr.

Department of Chemistry and Center for Chemical Methodology and Library Development, Boston University, Boston, Massachusetts 02215, USA.

MeSH Terms

- Dimersization
- Epoxy Compounds/chemical synthesis
- Hydroquinones/chemical synthesis
- Silanes/chemistry
- Stereocisomerism
- Support, Non-U.S. Gov't

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