

SciFinder Scholar . **Chemical Abstracts** 1907 to present.

Reference databases:

CAPLUS

MEDLINE

Structure databases:

REGISTRY


Reaction databases:

CASREACT

- **Relevancy Ranking**
- **No Boolean Logic**
- **Ask about STN with Boolean logic and proximity operators searching**

Tips for Describing Your Research Topic

To find information while exploring or refining by research topic, enter your phrases as complete sentences in English. SciFinder Scholar understands which terms are the key words and how to relate the terms to one another. Here are



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Chemical Abstracts 1907+

The CAplus database covers worldwide literature from all areas of chemistry and chemical engineering. Coverage includes biochemistry and applied, macromolecular, organic, physical, inorganic, and analytical chemistry. Patent abstracts represent about 16% of the database. Patents from 9 major issuing authorities are available in CAplus within 2 days of issue. CAplus also provides early access to the bibliographic information for documents in the process of being indexed by CAS. CAplus contains bibliographic information from all articles cited on the table-of-contents pages of approximately 1,500 core journals that make up more than 50% of the CAplus database.

Coverage: 1907 to date, plus over 44,000 records for journal articles dated before 1907.

This is a public file and is updated daily.

The CAS REGISTRY database is a chemical structure and dictionary database that contains unique substance records identified by CAS. Substance records contain CAS Registry Numbers, CA Index Names, commonly used synonyms, polymer class terms, structure diagrams (many with stereochemical information), and molecular formulas. The detailed record of a reference indicates other STN files that contain information on the substance and indicates regulatory listings where the substance occurs.

Coverage: 1957 to the present, with additional substances going back to the early 1900s.

The CASREACT database, the Chemical Abstracts Reaction Search Service, contains information on reactions of organic substances, including organometallics and biomolecules. CASREACT contains single-step and multi-step reaction information for reactants, products, reagents, solvents, and catalysts. The sources are the patent and journals in the Organic Sections of CA and the Organometallic and Organometalloid Sections.

Coverage: 1840 to date

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SciFinder Scholar



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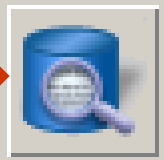
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Search for scientific information.



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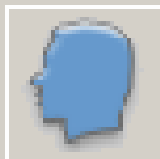
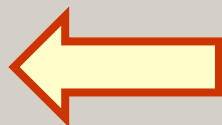


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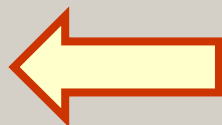
Explore Literature



Research Topic

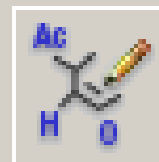


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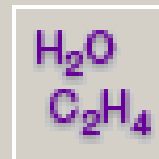


Company Name / Organization

Explore Substances



Chemical Structure



Molecular Formula

Explore Reactions



Reaction Structure

Describe your topic using a phrase.

I am interested in:

fabrication CMOS MEMS

Examples:

- The effect of antibiotic residues on dairy products
- Photocyanation of aromatic compounds
- Hydrocarbon-water emulsions as fuels

Filters ▼

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Select Candidates of interest:

- 25 references were found containing the concept "packaging CMOS MEMS".
- 97 references were found containing all of the concepts "packaging", "CMOS" and "MEMS".



Research Topic

OK

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- Monajemi, Pejman; Joseph, Paul J.; Kohl, F. **packaging via thermally released metal** Micromechanics and Microengineering (2006) ISSN:0960-1317. AN 2006:495454 CAPL
- Yoon, Yong-Kyu; Park, Jin-Woo; Allen, Mar **for RF MEMS.** Journal of Microelectromechanical Systems CODEN: JMIYET ISSN:1057-7157. AN 2006:526654 CAPLUS
- Pourkamali, Siavash; Ayazi, Farrokh. **High resonators with reduced motional resist** Topical Meeting on Silicon Monolithic Integr 5th, Atlanta, GA, United States, Sept. 8-10, 2005. CAN 143:470960 AN 2005:1019715 CAPL
- Brand, O. **Fabrication technology [for CMOS-MEMS].** Advanced Micro & Nanosystems (2005), 2(CMOS-MEMS), 1-67. 2005:526654 CAPLUS
- Hong, Sang Jeen; Choi, Seungkeun; Choi, \ **Characterization of low-temperature SU applications.** IEEE/SEMI Advanced Sem Workshop, 15th, Boston, MA, United States 404-408. CODEN: 69GKVG CAN 143:1846
- Graff, Mason; Mohanty, Swomitra K.; Moss **generic technology for microscale patterning** Journal of Microelectromechanical Systems ISSN:1057-7157. CAN 144:117702 AN 2006:526654 CAPLUS
- Mohanty, Swomitra K.; Ravula, Surendra K. **micro system using dielectrophoresis an cell manipulation and analysis.** Transd Solid-State Sensors, Actuators and Microsystems Boston, MA, United States, June 8-12, 2003. CAN 141:310130 AN 2004:394526 CAPL

Bibliographic Information

Fabrication technology [for CMOS-MEMS]. Brand, O. School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA, USA. Advanced Micro & Nanosystems (2005), 2(CMOS-MEMS), 1-67. Publisher: Wiley-VCH Verlag GmbH & Co. KGaA CODEN: AMNDCQ Journal; General Review written in English. CAN 143:239191 AN 2005:526654 CAPLUS

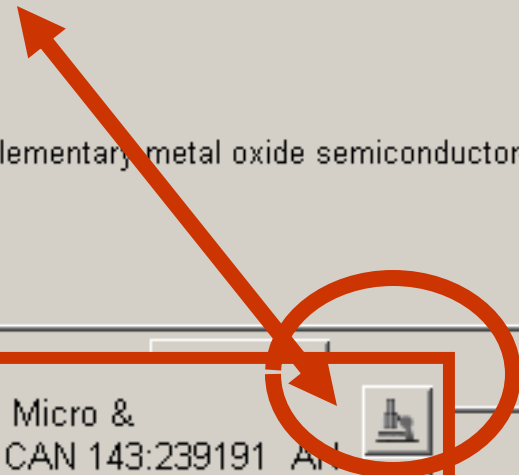
Abstract

A review. This chapter provides an overview on fabrication technologies for CMOS-based [microelectromech.](#) systems ([MEMS](#)). The first part briefly introduces the basic microfabrication steps, highlights a CMOS process sequence and how CMOS materials can be used for microsystems design. While a no. of microsystems can be fabricated within the regular CMOS process sequence, the focus of the chapter is on combining CMOS technol. with micromachining process modules. CMOS-compatible bulk and surface micromachining techniques are introduced in the second part of the chapter together with an overview of the design challenges faced when combining mech. microstructures and electronics on the same substrate. The micromachining modules can either precede (pre-CMOS), follow (post-CMOS) or be performed in between (intra-CMOS) the regular CMOS process steps. The last part of the chapter provides an extensive overview on the different CMOS-based [MEMS](#) approaches found in the literature.

Indexing -- Section 76-0 (Electric Phenomena)

[MOS devices](#) (complementary; fabrication technologies for complementary metal oxide semiconductor-based [microelectromech.](#) systems)

Electronic [device](#) fabrication
Micromachining

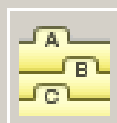


Brand, O. **Fabrication technology [for CMOS-MEMS].** Advanced Micro & Nanosystems (2005), 2(CMOS-MEMS), 1-67. CODEN: AMNDCQ CAN 143:239191 AN 2005:526654 CAPLUS



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Research Topic

Limit to literature relevant to a topic of interest.



Document Type

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illumination source. Physica Status Solidi C: Current Topics in Solid State Physics (2006), 3(6), 2223-2226. CODEN: PSSCGL ISSN:1610-1634. CAN 145:112908 AN 2006:698021 CAPLUS



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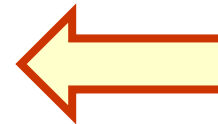
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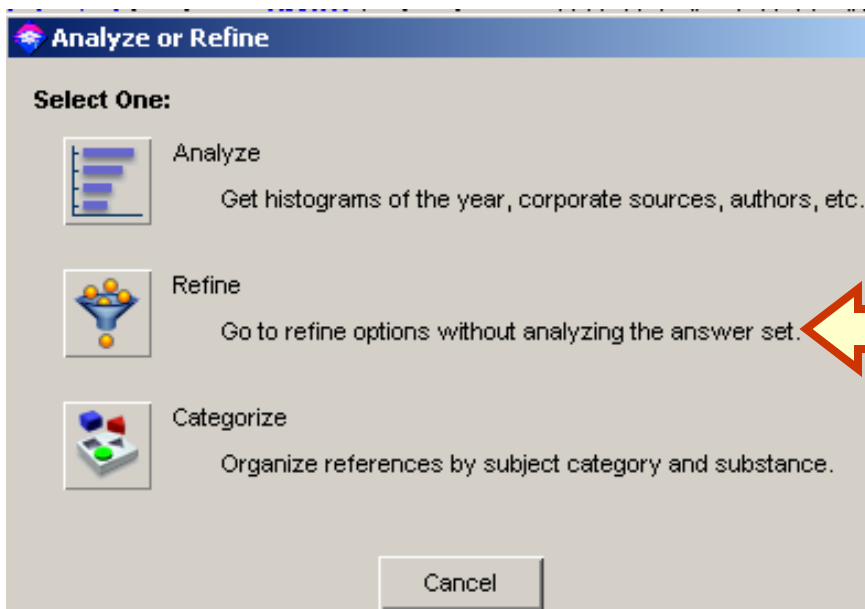
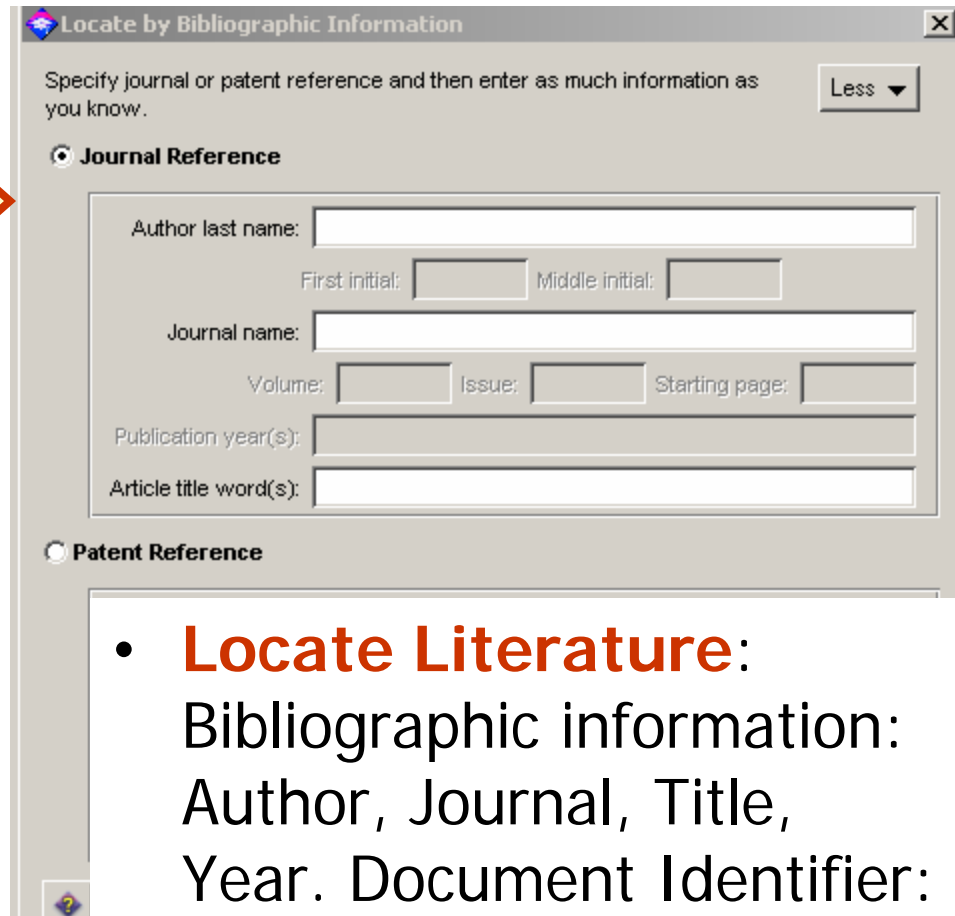
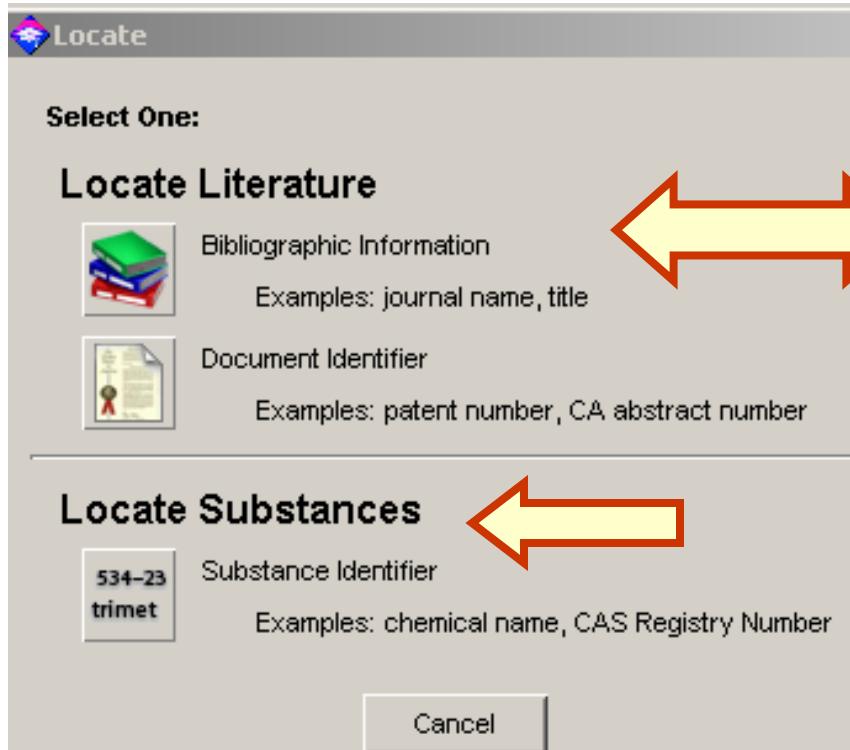
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- 1) Anon; IBM Microelectronics, <http://www.ibm.com/chips/>
- 2) Anon; Apple Computer, G5 Processor, <http://www.apple.com/g5processor/>
- 3) Jahnes, C; Proc IEEE Microelectromechanical Systems Conference (MEMS 2004) 2004, 789
- 4) Hovik, N; Proc Solid-State Sensor, Actuator and Microsystem Workshop 2004, 93
- 5) Hierold, C; Proc IEEE Int Conf on Micro Electro Mechanical Systems (MEMS 2000) 2000, 1
- 6) Plummer, J; Silicon VLSI Technology: Fundamentals, Practice and Modeling 2000

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Citing references	References that cite one or more of the documents in the original list. These will be more recent than your selected reference(s), and can help you gauge the prominence of the document(s).	Either CAPlus or MEDLINE documents may yield lists of citing references. The new (citing) references will be from CAPlus.

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Categorize

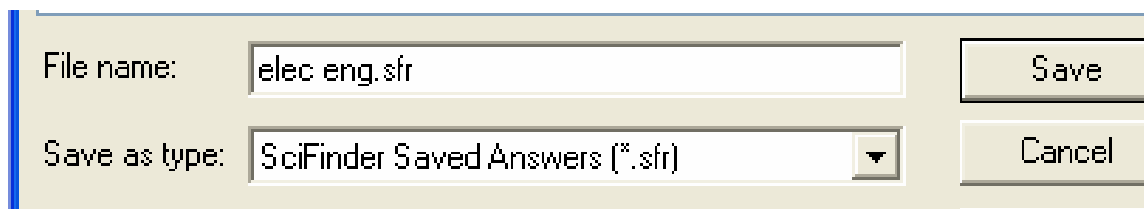
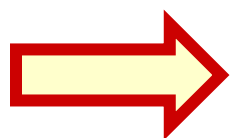
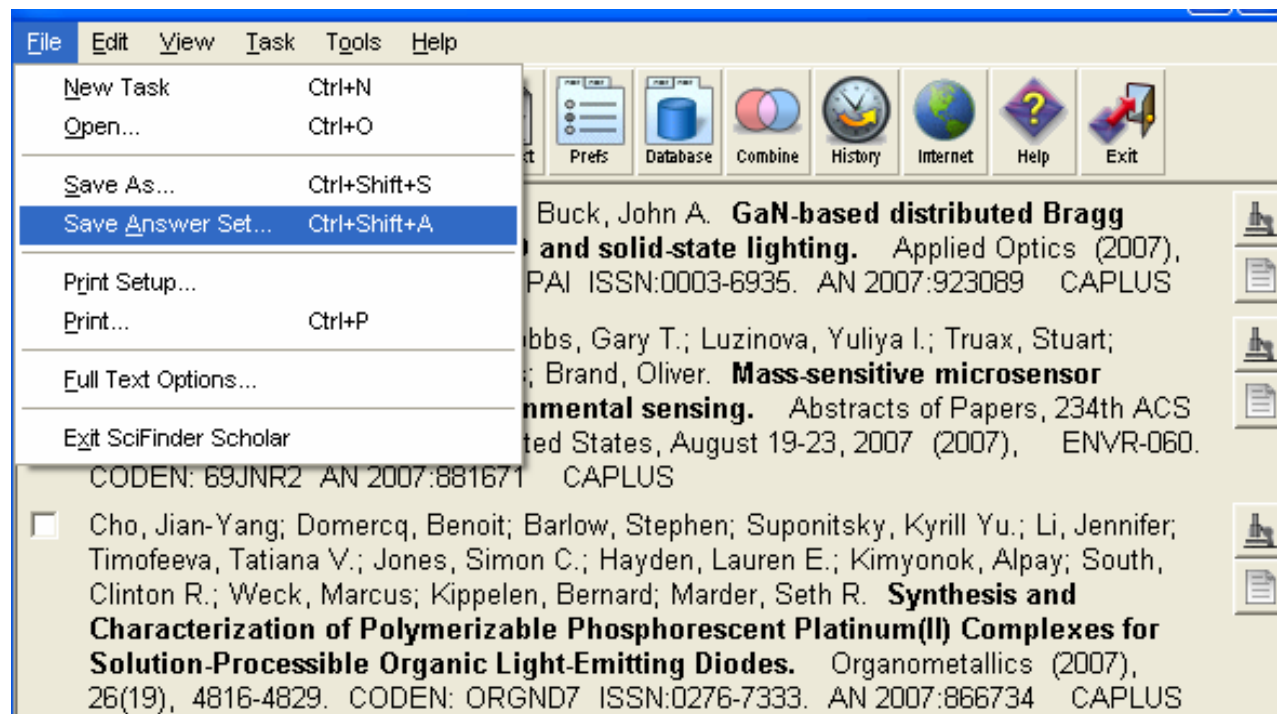
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<input checked="" type="radio"/> Processes & apparatus	590	<input type="checkbox"/> Vapor deposition process	60
<input type="radio"/> Substances in technology	441	<input type="checkbox"/> Heterojunction bipolar transistors	56
<input type="radio"/> Metallurgy	423	<input type="checkbox"/> Simulation and Modeling, physicochemical	44
<input type="radio"/> Materials & products	324	<input type="checkbox"/> Simulation and Modeling, biological	42
<input type="radio"/> Ceramics	100	<input type="checkbox"/> Algorithm	38
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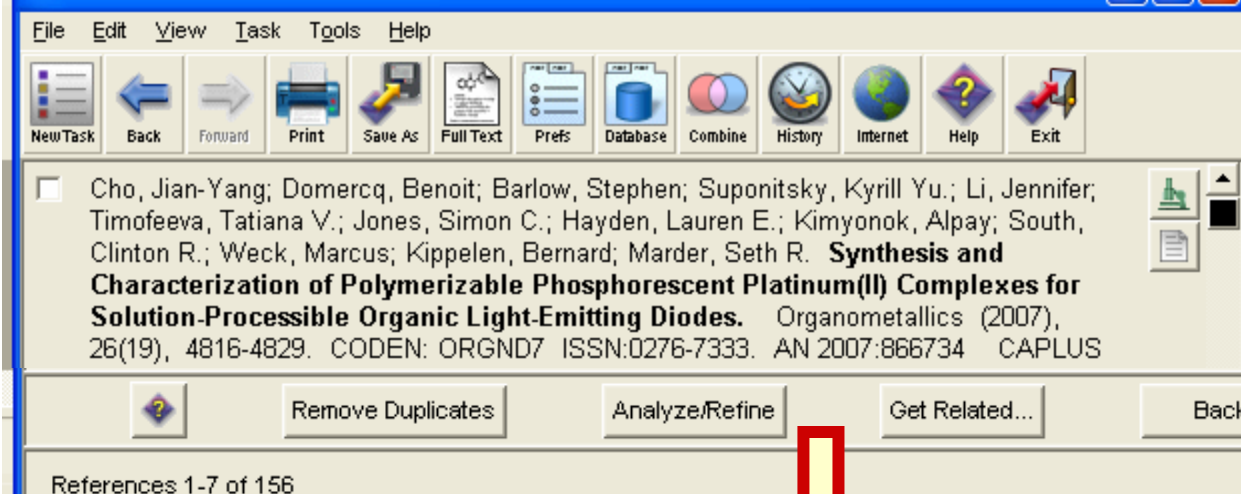
Combine

- SciFinder lets you combine a previously saved answer set with your currently active answer set. **Only two answer sets can be combined at a time** (although multiple combine operations can be performed during the same session). **One answer set must be a previously saved set** located on the user's desktop (or network share). **The other must be an "active" answer set** currently visible in the Main Viewer. Only another reference answer set (not a substance or reaction set) can be combined with a reference answer set.
- To combine reference sets:
- **Create an active answer set** (displayed in Main Viewer) using any type of reference-oriented search or locate task.
- Start to combine answer sets by using one of these methods:
 - On the Main Toolbar, click the **Combine** toolbar button.
 - Select **Tools > Combine Answer Sets**.
- The Open dialog box displays. Browse to a folder location and select a desktop answer set file. Only a file with a .sfr file type can be selected.
- Click **Open**.
- Select a combine options — or, before selecting an option, click Estimate to compare the approximate answer-count results of all four options:
 - **Combine sets** — performs a **logical OR combination**, placing all answers from both sets into the combined set.
 - **Intersect sets** — performs a **logical AND combination**, placing only matching answers from both sets into the combined set.

Save an
answer set
**File -- Save
Answer
Set**

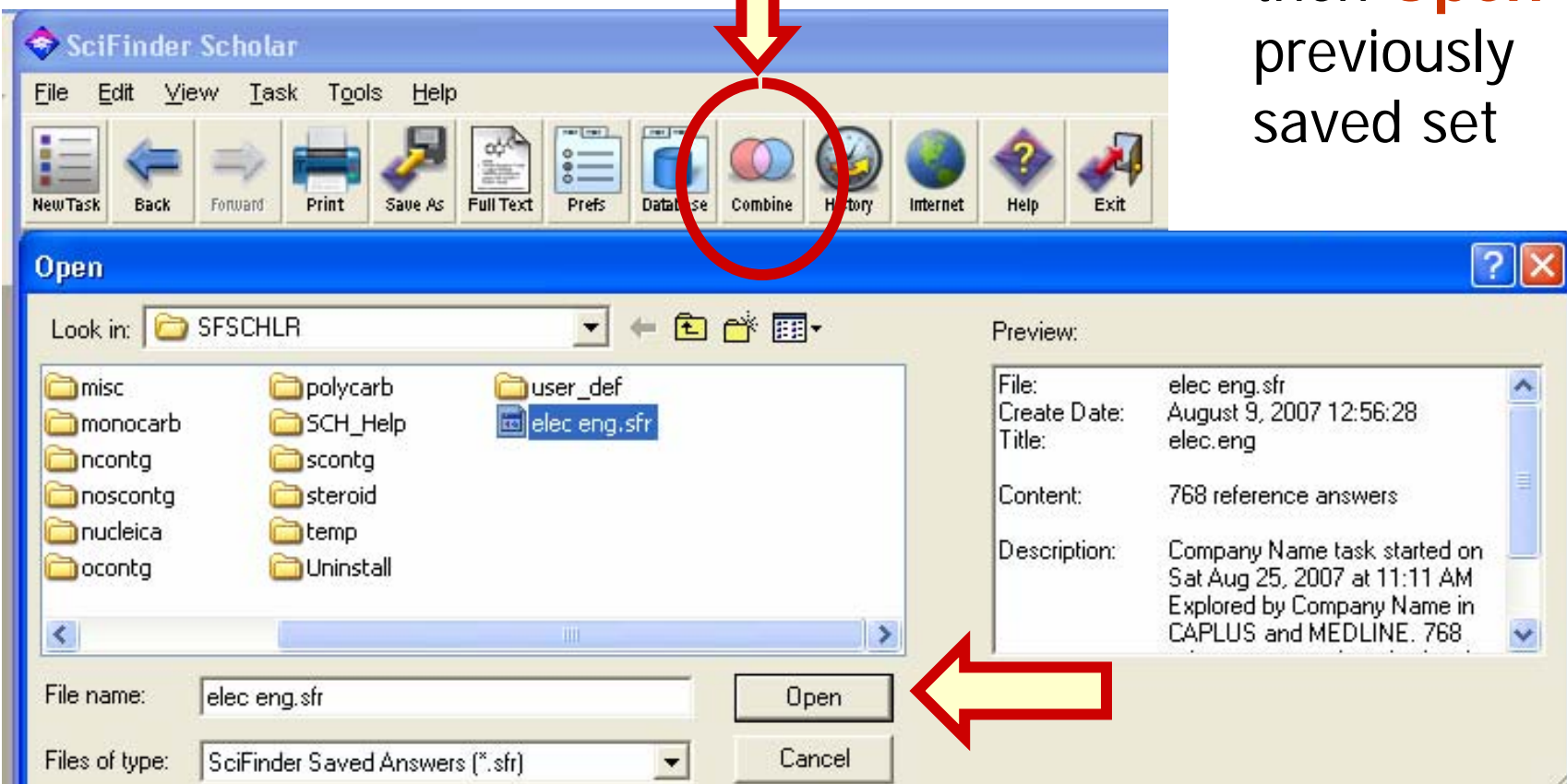


Next, **create a second, active answer set**
(displayed in Main Viewer)



Second, **active** answer set.

Click on **Combine**, then **Open** previously saved set



Combine Answer Sets

Select one:

- Combine sets
- Intersect sets
- Remove saved set from current set
- Remove current set from saved set

Estimate Cancel

- **Combine sets** — performs a **logical OR combination**, placing all answers from both sets into the combined set.
- **Intersect sets** — performs a **logical AND combination**, placing only matching answers from both sets into the combined set.

up; Potscavage, William, Jr.; Domercq, Benoit; Han, Sung-Ho; Li, Tai-De; Szoszkiewicz, Robert; Levi, Dean; Riedo, Elisa; Marder, Seth R.; Kippelen, Bernard. **Modeling and characterization of excitonic multilayer organic solar cells.** Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2006), 47(2), 1022. CODEN: ACPPAY ISSN:0032-3934. CAN 146:424831 AN 2006:854716 CAPLUS

Nakayashiki, Kenta; Rousaville, Brian; Yelundur, Vijay; Kim, Dong Seop; Rohatgi, Ajeet; Clark-Phelps, Robert; Hanoka, Jack I. **Fabrication and analysis of high-efficiency String Ribbon Si solar cells.** Solid-State Electronics (2006), 50(7-8), 1406-1412. CODEN: SSELA5 ISSN:0038-1101. CAN 146:84523 AN 2006:831682 CAPLUS

Kim, D. S.; Hilali, M. M.; Rohatgi, A.; Nakano, K.; Hariharan, A.; Matthei, K. **Development of a Phosphorus Spray Diffusion System for Low-Cost Silicon Solar Cells.** Journal of the Electrochemical Society (2006), 153(7), A1391-A1396. CODEN: JESOAN ISSN:0013-4651. CAN 145:252237 AN 2006:606897 CAPLUS

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SciFinder Scholar Search Hints

- The SciFinder Scholar search algorithm separates the words in the phrase and looks for their occurrence in the same sentence.
- **Do not use Boolean logic** or wording groupings, as SciFinder Scholar does not understand them.
- Place **synonyms** in parenthesis next to the topic you entered. Example: I am interested in the milk production of cows (bovines). SciFinder Scholar will search for both terms, "cows" and "bovines."
- SciFinder Scholar automatically truncates the terms in your query and searches for plural forms, past tense verbs and other word forms. **Do not include truncation or wildcard** symbols (such as ! or *) in your search terms, since SciFinder Scholar will disregard them and interpret the remaining characters literally.
- SciFinder Scholar is designed to recognize and accept: Commonly used abbreviations, commonly misspelled words, common Words spelled according to either British or American English.

Web Version is Available

- Remote, off-campus access is available for the [web version](#).
- Registration is required. Use your official Georgia Tech email account ending in "gatech.edu."
- Can create "**Keep Me Posted Alerts**" for both references and substances.

The screenshot displays the SciFinder web interface. At the top, there are navigation tabs for 'References', 'Substances', and 'Reactions'. A 'KEEP ME POSTED' button is highlighted with a red box. Below it, a search result for '19.9%-efficient ZnO/CdS/CuInGaSe2 solar cell with 81.2% fill factor' is visible. A yellow arrow points from the 'KEEP ME POSTED' button to the 'Create Keep Me Posted Profile' dialog box. The dialog box contains the following fields:

- Title:** * (Required field)
- Description:**
- Status:** Enabled, Disabled
- Expiration Date:** 05/29/09

Buttons for 'Create' and 'Cancel' are at the bottom of the dialog box.