Technology Solutions for Enhanced Information Access

U.S. Department of Energy
Office of Scientific and Technical Information

Karen J. Spence
DOE/OSTI

OSTI's Mission

To advance science and sustain technological creativity by making R&D findings available and useful to DOE researchers and the American people

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OSTI Becomes Law

New law identifies OSTI as DOE entity to carry out STI program

President signed Energy Policy Act of 2005 (H.R. 6) 8/8/05

Energy Policy Act Language

*"The Secretary, through the Office of Scientific and Technical Information, shall maintain within the Department **publicly available collections of scientific and technical information** resulting from research, development, demonstration, and commercial applications activities supported by the Department."*

Strategic Initiative for Scientific Knowledge & Advancement
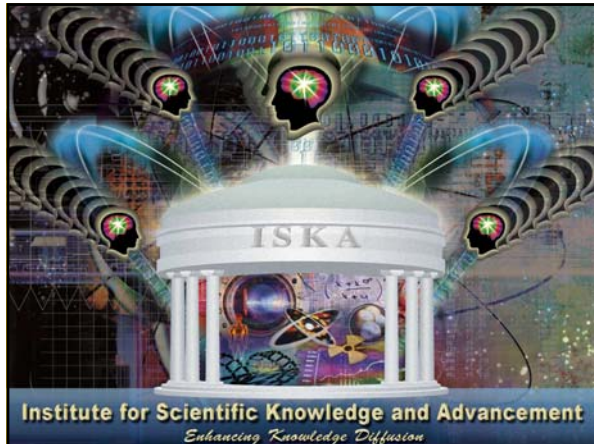
Areas of active innovations include:

- **Federation of distributed collections with simultaneous, ranked, full text search.**

- **Modeling scientific exchange in the research process**

- **Grid-based and other distributed computer processing techniques to support federation of collections.**

- **Integration of numeric data and text**

- **Expanding digital access to legacy documents**

Global Discovery

Collaborative search, enhancing knowledge, advancing science

The return on investment in science depends on the diffusion of scientific knowledge.

The opportunity exists to build a global community, to massively speed up and expand the diffusion of knowledge.

Institute for Scientific Knowledge and Advancement
Enhancing Knowledge Diffusion

Press Acknowledgment Summary

- Over 50 press hits during FY05

- Include articles in newspapers, online magazines, university newsletters and Web logs
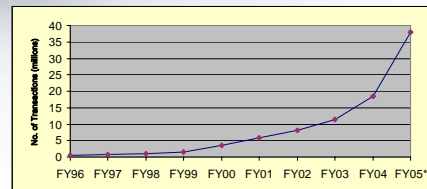

OSTI Recognition

Online search tools hold six slots in TOP 100 Science/Technology Government Information Web Sites by the Association of College and Research Libraries (ACRL)

➡ **Science.gov** tops the list

➡ **EnergyFiles**, **Federal R&D Project Summaries** and **GrayLit Network** listed as top General/Portal sites

➡ **EnergyFiles** also recognized under Federal Math and Physical Sciences category

➡ **ETDE World Energy Database** listed in International category
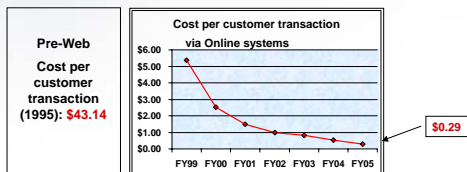
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Usage Increases

Use of OSTI resources measurably increases based on patron transactions

In recent years, OSTI has increased information accessibility online, thus greatly increasing the number of citizens and scientists who avail themselves of DOE R&D research results

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Costs Decrease

Efficiency and Effectiveness: By streamlining data requirements and using innovative technologies, costs and time have been reduced for the R&D tracking and deliverables reporting system.

Pre-Web
Cost per customer transaction (1995): **$43.14**

Cost per customer transaction via Online systems

$0.29

OSTI has reduced costs while increasing accessibility

OSTI Meets Goals through a Wide Range of Information Focused Partnerships

- ✓ **Science.gov – Multi-agency alliance**
- ✓ **CENDI – Cross-agency cooperation**
- ✓ **GPO – Partner in access**
- ✓ **Google, Yahoo, MSN – Access for commercial search engines**
- ✓ **NSDL – Increasing access to OAI patrons**
- ✓ **CrossRef – DOI opportunities**
- ✓ **NTIS**
- ✓ **OCLC**

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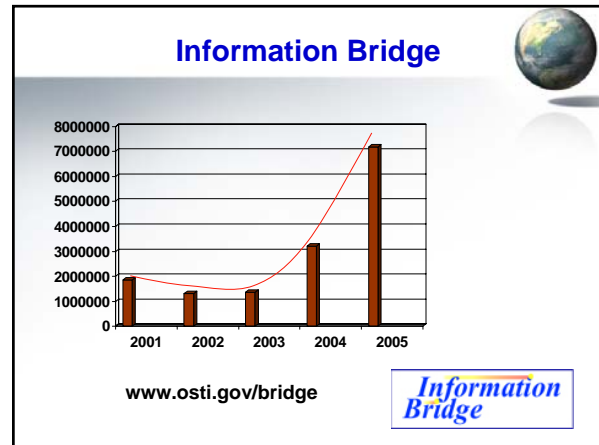## DOE Information Bridge: An Old Friend Gets New Life!

- **Released April 1998**

- **Over 110,000 searchable full-text reports and bibliographic citations**

- **Over 7 million searchable pages**

- **From 1994 forward**

- **Topics include physics, chemistry, materials, biology, environmental sciences, energy technologies, engineering, computer and information science, renewable energy**

www.osti.gov/bridge

Legacy Additions

~20,000 from FY1994 were added June 2005

~30,000 from FY1993 to be added by end of December 2006

~30,000 from FY1992 to be added by end of January 2006

Plus ad hoc titles on an ongoing basis

Information Bridge

www.osti.gov/bridge

Information Bridge

The New Look!

Fielded Searching!

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Author Searching!

Author Select

Author Select	Authors	Selection List
Last Name: orbach	Select authors by selecting "add" or "add all".	**Clear Your List!**
First Name:	ORBACH, H	1. Orbach, R.
Type in a name, or the first few letters of a name, in one or both of appropriate search boxes above and select "Go". An attempt will be made to match authors that most closely relate to the text you typed.	Orbach, H.	2. Orbach, R. - Lab. d' Optique Physique
	Orbach, H.K.	3. Orbach, R.L.
	Orbach, H.S.	
	ORBACH, K	Submit >>
	Orbach, K.N.	
	ORBACH, O	
	Orbach, O.	
	ORBACH, R	
	Orbach, R.	
	Orbach, R. - Lab. d' Optique Physique	
	Orbach, R.L.	
	ORBACH, S	
	Orbach, S.	
	ORBACH-ARBOUYS, S	
	Orbach-Arbouys, S.	
	ORBACH-WERBIG, S	
	Orbach-Werbig, S.	
	ORBACHEVSKII, L	
	Orbachevski, L.S.	

Thesaurus Tool!

Thesaurus Term Selection

Browse Categories or Search for Terms	Terms	Selection List
• Thesaurus Categories are arranged in a hierarchy.	Perform a term search or browse the category list using the pane on the left. Selecting the "explore" button of an underlined, starred term in the left pane will display its related terms here.	Add terms from the middle pane to your selection list. You may add up to 7 terms.
• Select a category next to a folder to see the items it contains.		
• Select a term next to a star to see its narrower terms. (Note: If a term has no narrower terms, the display will not change.)		
• Select a term's "explore" button to see its related terms in the thesaurus.		
• Hint: a search term may not be in the first category you think of; consider another category to find a term.		

- Mathematics
- Physics
- Chemistry and Chemical Engineering
- Biomedical Sciences
- Environmental Sciences
- Earth Sciences
- Geography
- Engineering and Technology
- Economics
- Management
- Law
- National Defense/Military

Thesaurus Tool! (Cont.)

Thesaurus Term Selection

(Earth Sciences tree shown: Geology, Oceanography, Meteorology — Theories, Models, Principles, Laws; Problems; Effects; Processes — Thought-Process — Classification, Forecasting, Delphi Method, Projection Series, Planning, Verification; Variation; Experiment, Observation, Data Handling and Data Use; Mathematical; Dynamic; Movement; Thermodynamic; Generic Thermodynamic Processes; Electromagnetic; Ice, Water, Water Vapor; Bulk-Matter)

Terms	Selection List
Select an underlined term to make it the Current Term and find its Broader, Narrower, & Related Terms. Select the add button to add the term to the Selection List in the right pane.	**Clear Your List!**
Current Term: Projection Series	1.) Forecasting
Broader Terms: Energy Models, Forecasting	2.) Mathematical Models
Narrower Terms:	Submit >>
Related Terms: Mathematical Models	
Preferred Terms:	
Non-Preferred Terms:	

Alerts!

DOE Scientific and Technical Information • DOE STI • DOE Scientific and Technical Information

INFORMATION BRIDGE

DOE • OSTI   GPO Access

Home · Basic Search · Fielded Search · Alerts · Help

Information Bridge Alerts

Please Sign In.

Alerts provide users with e-mail notification of updates to the Information Bridge: DOE Scientific and Technical Information in specific areas of interest.

If you wish to receive an Alert and are not registered, please register. Please note that passwords expire 6 months after registration. At this time you will be required to change your password in order to continue to receive Alert notification(s).

If you are registered, you may log on to review and/or revise active Alerts or to create a new Alert.

E-Mail Address
Password

○ View Alerts Summary ○ Create a New Alert ○ Cancel All Alerts

Log On

Forgot Your Password?

OSTI Adds RSS Feed

- **RSS (Really Simple Syndication or Rich Site Summary) allows users to stay up-to-date on headlines, news, events, blog entries or other content that frequently changes**

- **OSTI launched an RSS feed in August**

- **Provides Web patrons a new means for gathering information about OSTI's products and services**

- **RSS employs an XML-based structure, includes title, date, brief description, and link to full text of content**

Science Conferences

The OSTI Science Conferences portal was devised to expedite access to conference papers and proceedings in various fields of science and technology. Emphasis is on U.S. conferences hosted and/or published by scientific and professional organizations whose areas of focus relate substantially to the Department of Energy's mission. This portal provides the capability to search for conference information on multiple web sites and databases with a single query utilizing a combination of surface web and deep web tools (specifically Distributed Explorit from Deep Web Technologies) that can reach where ordinary search engines cannot.

Science Conferences
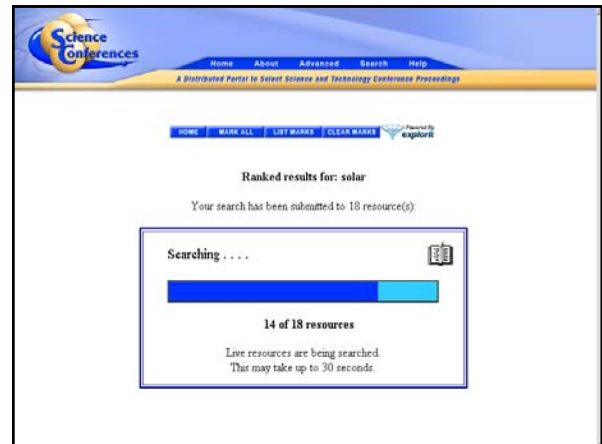
Search: solar   CLEAR   SEARCH

Welcome to the DOE Office of Scientific and Technical Information's Science Conferences Portal. From here you can simultaneously query any or all of the listed organizations and collections for scientific and technical conference proceedings or papers. Simply enter your search term(s) in the "Search" box, check one or more of the listed sites (or check "Select All"), and click the "Search" button.

Conference Collections

- American Association of Petroleum Geologists (AAPG)
- American Chemical Society (ACS)
- American Institute of Aeronautics and Astronautics (AIAA)
- American Institute of Physics (AIP)
- American Meteorological Society (AMS)
- American Society of Civil Engineers (ASCE)
- American Society of Mechanical Engineers (ASME)
- Association for Computing Machinery (ACM)
- Electric Power Research Institute (EPRI)
- Energy Citations Database (ECD)
- Institute of Electrical & Electronics Engineers (IEEE)
- International Society for Optical Engineering (SPIE)
- Los Alamos National Laboratory (LANL)
- National Energy Technology Laboratory (NETL)
- National Nuclear Data Center (NNDC)
- Stanford Linear Accelerator Center (SLAC)

☑ Select All

Disclaimer/Security   Comments

Ranked results for: solar

Your search has been submitted to 18 resource(s):

Searching . . . .

14 of 18 resources

Live resources are being searched.
This may take up to 30 seconds.

Science Conferences

Enter Search Term(s)   SEARCH   See Results by Source

Ranked results for: solar

1. ★★★★ SOLAR NEUTRINOS.
   To appear in the proceedings of 22nd Physics in Collision Conference (PIC 2002), Stanford, California, 20-22 Jun 2002. Published in eConf C020620:SAAT02,2002
   Document is from: Stanford Linear Accelerator Center (SLAC)

2. ★★★★ SOLAR NEUTRINOS.
   Talk given at 19th International Symposium on Lepton and Photon Interactions at High-Energies (LP 99), Stanford, California, 9-14 Aug 1999. Published in Int.J.Mod.Phys.A15S1:201-228,2000, eConf C990809:201-228,2000
   Document is from: Stanford Linear Accelerator Center (SLAC)

3. ★★★★ SOLAR MODELS AND SOLAR NEUTRINOS.
   Invited talk at 23rd International Conference on Physics in Collision (PIC 2003), Zeuthen, Germany, 26-28 Jun 2003. Published in eConf C030626:THAT04,2003
   Document is from: Stanford Linear Accelerator Center (SLAC)

OSTI is Developing a Patents Database

Purpose
- Demonstrate department's contribution to scientific progress
- Create a centralized collection

Scope and Content
- All DOE patent info, historic and current
- Bibliographic records, with link to full text at USPTO

Source Data
- Imported from *Patent Weasel*
  - Analysis tool developed by PNNL
  - Includes data from 1976 thru 2002

Legacy Data
- Available at OSTI
- Will be integrated into database

Bibliographic Data: *Each patent record will be comprised of the following fields:*
- *Patent Number*
- *Patent Application Number*
- *Patent Title*
- *Lab*
- *Abstract*
- *Inventor*
- *Assignee*
- *Subject Categories*
- *Contract Number*
- *Award Year*
- *Full Text Link to USPTO*

In Pursuit of Fugitive Documents

- GPO continues to emphasize the "fugitive document" problem, which has been exacerbated by electronic publishing and the web

- DOE has a long history of making scientific and technical information (STI) available to the FDLP program

- New efforts are being focused on identifying other materials not traditionally included in our STI databases, but which may be relevant to the FDLP program

DOE Fugitive Document Project Content Guidelines

- Item must be DOE sponsored or authored by DOE or DOE contractor personnel

- Item must be publicly available (unclassified/unlimited)

- Item must report on energy or an energy related subject (consistent with DOE's R&D mission)

- Item must be located on a DOE organization website, (e.g., program office, national laboratory, etc.)
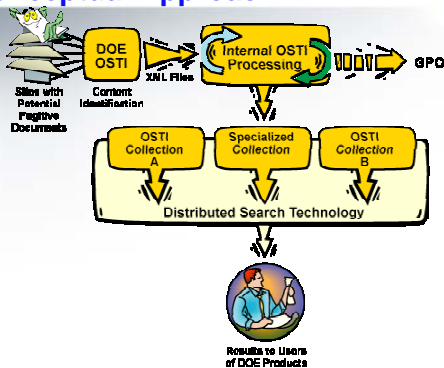
DOE Fugitive Document Project Content Guidelines (Cont.)

- Item must have a title and a link to full text

- Item should not be one that OSTI already has full text for in its collection

- Item should not be one that OSTI has a URL for as a part of its collection

- Item must be in a form and format that is technologically manageable by OSTI's current hardware/software configuration without inordinate level of effort or resource requirements

DOE Fugitive Document Project Metadata

- Required Metadata
  - Title
  - URL to full text

- Metadata Obtained When Readily Available
  - Author
  - Report number
  - DOE contract number
  - Originating research organization
  - Publication date
  - Language
  - Country of publication code
  - Sponsoring organization

- Assigned Metadata
  - Unique Identifier Number
  - Size (full text document)

DOE Fugitive Document Project Conceptual Approach

DOE/OSTI and GPO

We are dedicated to continuing our long-standing partnership with GPO and the FDLP

We would like your feedback on how we are currently doing and what more we can do to make DOE's information accessible to you and your patrons

Please contact me at:

spencek@osti.gov

865-574-0295