



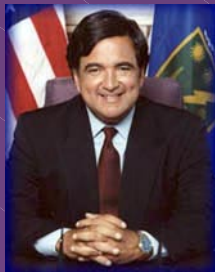
Office of Scientific and Technical Information Building Energy Science and Technology Digital Collections





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

*For science to rapidly advance
at the frontiers, it must be open.
And shared knowledge is the
enabler of scientific progress.*



U. S. Secretary of Energy Bill Richardson
Fermi Awards Presentation
Washington, D.C.
April 16, 1999





Supporting the Science

Mission



- The public invests \$7 billion annually in DOE R&D
- Principal output from department s R&D is scientific and technical information (STI)
- Ensures overall stewardship and accessibility for unclassified STI
- Oversees the Department s Technical Information Management Program
- Manages the world s most comprehensive collection of classified and sensitive energy-related information
- Operating Agent and the U.S. representative to the ETDE and INIS

Result—information delivered to the desktop, reaching thousands more people—at lower cost per person served





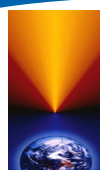
Office of Scientific and Technical Information U.S. Department of Energy

- Setting the stage
- OSTI Portfolio
- Future Information Infrastructure for the Physical Sciences...towards a national library





OSTI Resource Portfolio



EnergyFiles

Virtual Library of Energy Science and Technology

EnergyPortal Search

Distributed searching across 500 heterogeneous databases and Web sites



PUB SCIENCE

Journal access



**DOE
Information
Bridge**

Full-text reports

**PrePRINT
Network**

Preprint Literature



**Federal R&D
Project Summaries**

**GrayLIT
Network**

Federal gray literature

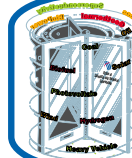
DOE R&D Accomplishments

Outcomes of
past research

Research
Development
Project Summaries

R&D projects

**OPEN
Declassified
Information**



ECAPS
Subject Specific
Citations





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



- Report Literature
(Gray Literature)
- Journal Literature
- Preprints





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



Welcome to the U.S. Department of Energy (DOE) Information Bridge.

- April 1998
- Over 60,000 technical reports (about 4 million full-text pages) accessible and searchable
- Researchers downloading 14,000 reports monthly

<http://www.osti.gov/bridge>





Enhancements



<http://www.osti.gov/bridge>

Newly added:

- Date-range searching
- Search results in user-defined order

Future:

- Doubling content (legacy data)
- Persistent URL's
- Full text searching of remote sites
- Multiple downloading capabilities





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

<http://www.osti.gov/pubscience>

- October 1999
- Compendium of journal literature in sciences related to DOE
- 35 publisher partners with over 1,200 journal titles
- 2.0 million searchable journal citations



Providing access to a growing collection of
Scientific and Technical Publishers and Journal Literature

[About](#) | [What's New](#) | [Search](#) | [Help](#) | [Comments](#) | [Collections](#) | [Related Links](#)

PubSCIENCE provides users the capability to search across a large compendium of peer reviewed journal literature with a focus on the physical sciences and other disciplines of concern to the Department of Energy (DOE).

American Association for the Advancement of Science
American Association of Petroleum Geologists
American Mathematical Society
American Meteorological Society
American Physical Society
American Society for Microbiology
American Society of Civil Engineers
ASM International
Blackwell Science, Ltd.
Cambridge University Press
EDP Sciences
The Electrochemical Society
Institute of Physics Publishing
International Union of Crystallography
Massachusetts Medical Society (New England Journal of
Medicine)
The MIT Press

National Academy of Sciences
National Association of Corrosion Engineers International
National Research Council of Canada Research Press
Nature Publishing Group - Nature
Nature Publishing Group - Nature Monthly Journals
Nature Publishing Group - Nature Specialist Journals
Oxford University Press
Portland Press Ltd.
Royal Society of Chemistry
S. Karger AG
Society for Industrial and Applied Mathematics
Springer-Verlag New York, Inc.
Sacks Publications
Taylor & Francis Publishers, Ltd.
University of Chicago Press
Wolters Kluwer
Ziff-Davis, Inc., ZDNet





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

<http://www.osti.gov/preprint>

- January 31, 2000
- A searchable gateway to over 1,500 worldwide preprint sources and approximately 340,000 preprints

PrePRINT Network

- About
- What's New
- Search Selected Sites
- Subject Pathways
- Browse
- Scientific Societies
- Comments
- Help

The Department of Energy's PrePRINT Network is a searchable gateway to preprint servers that deal with scientific and technical disciplines of concern to DOE. Such disciplines include the great bulk of physics, materials, and chemistry, as well as portions of biology, environmental sciences and nuclear medicine.

With a single query, users can search one or a collection of existing preprint servers. The Network pulses the search engines of such servers, compiles the results, and returns them to the users.





Additional Digital Resources



OpenNet – includes references to all documents declassified and made publicly available after October 1, 1994.

<http://www.osti.gov/opennet>



ECAPS

Electronic Current
Awareness Publications

Electronic Current Awareness Publications - Subject specific citations from the Energy Science and Technology Database.

<http://www.osti.gov/ecaps>





Additional Digital Resources



DOE R&D Accomplishments – Outcomes of past DOE and DOE contractor R&D accomplishments which have had significant economic impact, have improved people’s lives, or have been widely recognized as a remarkable advance in science. <http://www.osti.gov/accomplishments>



DOE R&D Project Summaries – Current information on 20,000 DOE Research and Development projects
<http://www.osti.gov/rnd>





Federally Funded Research

Federal R&D Project Summaries
Descriptions, Awards, and Summaries of Federally Funded Research

Find out how your research dollars are being spent

- About
- What's New
- Contacts/Comments
- Disclaimer
- Search R&D

DOE Home ▶
OSTI Home ▶

product of the DOE
Office of Scientific and Technical Information

- April 2000
- Allows the researcher to search across the R&D records
 - DOE (20,000)
 - NIH (60,000)
 - NSF (145,000)
 - Access to over 220,000 R&D items in a single search

<http://www.osti.gov/fedrnd/>





Technical Reports



Security/Disclaimer Notices

Search the Literature

About this Site

What's New

Disclaimer

Contacts/Comments

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OSTI Home ◀

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Information

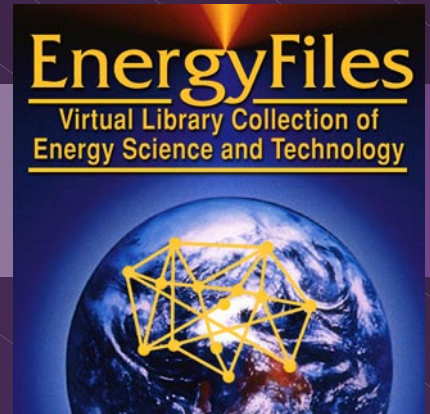
- July 2000
- Gray literature of U.S. federal agencies easily accessible over the Internet
 - DTIC Report Collection
 - DOE Information Bridge
 - EPA Reports – NEPIS
 - NASA Jet Propulsion Lab
 - NASA Langley Technical

<http://www.osti.gov/graylit>





EnergyFiles



<http://www.osti.gov/energyfiles>

- Released May 1997
- One-stop shopping for integrated energy, science, and technology information resources (over 500 sites)
 - High quality, driven by a collection development policy
 - Geographically-dispersed, resulting from collaborations and resource sharing
- Resources include bibliographic databases, full-text, journals, and preprints
- Cutting-edge search mechanism-distributed search of 26 databases





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

Tool Usage Statistics – October 1999 – September 2000

| | TOTAL | edu | gov | mil | com | net | int'l | Other* | % |
|---------------------|------------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------|
| PubSCIENCE | 1,590,717 | 302,884 | 127,193 | 15,899 | 270,286 | 111,294 | 349,782 | 413,379 | 56.5% |
| PrePRINTS | 47,936 | 4,657 | 7,503 | 831 | 11,540 | 3,028 | 6,924 | 13,453 | 1.7% |
| DOE InfoBridge-Pub | 349,423 | 28,780 | 80,183 | 4,776 | 67,150 | 36,673 | 44,036 | 87,825 | 12.4% |
| R&D Accomplish | 48,183 | 2,088 | 10,147 | 394 | 11,074 | 4,039 | 4,008 | 16,433 | 1.7% |
| R&D Proj Summ | 140,409 | 8,368 | 34,244 | 1,592 | 34,093 | 15,056 | 9,807 | 37,249 | 5.0% |
| Energy Files | 317,824 | 20,249 | 36,703 | 3,451 | 85,722 | 39,586 | 41,513 | 90,600 | 11.3% |
| Energy Portal | 74,779 | 5,594 | 9,957 | 1,032 | 15,466 | 9,344 | 14,982 | 18,404 | 2.7% |
| ECAPS | 244,604 | 13,247 | 12,767 | 1,486 | 51,980 | 34,429 | 47,451 | 83,244 | 8.7% |
| TOTAL USAGE | 2,813,875 | 385,867 | 318,697 | 29,461 | 547,311 | 253,449 | 518,503 | 760,587 | |
| Percentage of Total | | 13.7% | 11.3% | 1.0% | 19.5% | 9.0% | 18.4% | 27.0% | 100% |

*Other includes Unknown, Old Style Arpanet, Non-Profit Organizations and US





How Federal Agencies are Sharing Their Information

- National Institutes of Health – National Library of Medicine
1836 (Legislated 1956)
- U.S. Department of Agriculture – National Agricultural Library
1862 (Legislated 1962)
- U.S. Department of Education – National Library of Education
1994
- U.S. Department of Transportation – National Transportation Library
1998



U.S. Department of Energy



Future
Information Infrastructure
for the Physical Sciences

Strength Through Science



Workshop Panel

Oak Ridge National Laboratory

The University of Chicago

Illinois State Water Survey

Rensselaer Polytechnic Institute (RPI)

American Physical Society

CIO University of Michigan

Princeton University

CIO NASA

National Library Medicine, NIH

Physics Research Manager

Chemistry Scientist, Data Manager

State Geosciences Science Manager

Materials Science Scientist, Materials Informatics

Physics Science Editor

Library/Information Science

Physics Scientist

Engineering, Information Technology

Information Management,
National Library





Participants of the Workshop

Archive.org

Corporation for National
Research Initiatives

DOE Energy Library

Digital Library Federation

Internet2

National Agricultural Library

National Science Foundation

Special Libraries Association

American Association for
the Advancement of Science

Defense Technical Information Center

Department of Justice

Government Printing Office

Library of Congress

National Research Council

Nature Magazine

University of Maryland



Future
Information Infrastructure
for the Physical Sciences

Strength Through Science

Major Themes

- Scope of the Initiative
- Information Types
- Information Products and Services
- Archiving, Preservation and Access to Information
- Research, Education, and The Public Interest
- Quality
- Participation of Sectors of the Economy
- Leadership



U.S. Department of Energy

Future
Information Infrastructure
for the Physical Sciences

Strength Through Science

<http://www.osti.gov/physicalsciences/>

Workshop Report on a Future
Information Infrastructure
for the Physical Sciences



The Facts
of the Matter:
*Better finding,
understanding
and using
information
about our
physical world.*

May 30–31, 2000

Hosted by the Department of Energy at the National Academy of Sciences



Future
Information Infrastructure
for the Physical Sciences

Strength Through Science



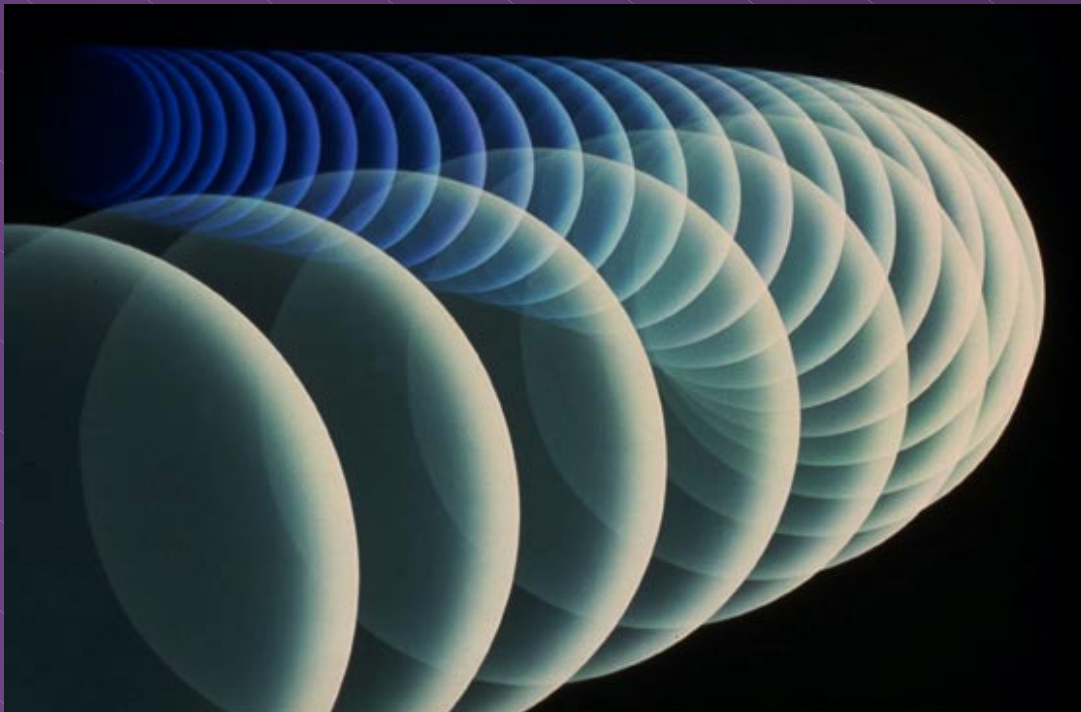
- A Common Knowledge Base
- A Point of Convergence
- A Freely Available Source



Future
Information Infrastructure
for the Physical Sciences

Strength Through Science

Three Time Horizons



- Doing Better at What We're Doing Now
- Mobilizing for What is Possible Tomorrow
- Realizing the Future Potential



Future
Information Infrastructure
for the Physical Sciences

Strength Through Science

Why is this important to the nation?

- Education
- Economy
- Global Competitiveness



U.S. Department of Energy

Future
Information Infrastructure
for the Physical Sciences

Strength Through Science

<http://www.osti.gov/>

