

CHORUS

Clearinghouse for the **Open Research** of the United States

A Solution for Public Access

STM Innovations Conference
London, UK
4 December 2013

Howard Ratner, Executive Director, CHOR Inc.

Identification • Discovery • Access • Preservation • Compliance



US Office of Science and Technology Policy (OSTP)

“Increasing Access to the Results of Federally-Funded Scientific Research” – 22 February 2013

- All federal agencies funding \$100M or more annually in extramural research must develop public access policies
- Free public access to peer-reviewed research articles (guideline: 12-month embargo, adapted to agency/discipline need)
- Need policies on both articles and data
- Optimize search, archival, and dissemination features to encourage innovation
- Ensure interoperability and long-term stewardship
- Develop plans in consultation with stakeholders





Clearinghouse for the **Open Research** of the United States

A broad coalition of scholarly journal publishers formed to develop, implement and steward a partnership with the federal research funders for providing public access to the peer review publications that report on federally-funded research.

- Evolved from an ad-hoc group of publishers who initiated partnership discussions with several agencies in Spring 2011
- Incorporated as a not-for-profit entity - CHOR Inc. - on October 1, 2013
- Will be applying for US IRS 501(c)(3) tax-exempt status
- 80 publisher signatories and growing
- Received significant sponsorship pledges at Frankfurt October 2013

Goals:

- **Provide public access** to manuscripts/articles reporting on federally funded research
- **Leverage existing infrastructure** and investment of the agencies and publishers
- **Preserve agency funds** for mission critical activities/programs
- Provide for **international scalability**





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How Does CHORUS Help?

- CHORUS (first service of CHOR Inc.) now offers an open technology platform to meet the public access goals of funding agencies and researchers
- For all key stakeholders:
 - **Funding agencies** (**identifies** and **provides access** to articles reporting on research they fund, **ensures preservation** of research articles, **ensures** researcher and publisher **compliance**)
 - **Authors/researchers/institutions** (**simplifies compliance** with funder mandates, **provides access** to research results)
 - **Libraries** (**ensures preservation** of research articles, **provides access** to research results)
 - **The public** (**provides access** to articles reporting on publicly funded research)
 - **Publishers** (**simplifies compliance** with funder mandates, retains traffic)
- **No significant cost** for agency use or participation because CHORUS **builds on the existing infrastructure** of the scholarly community (CrossRef, FundRef, Prospect, CLOCKSS, Portico, ORCID, etc)





How CHORUS Works: Identification



Address Line 2

City* Melville

State/Province NY

Country* United States of America

Zip/Postal Code 11747

Work Phone 516-576-2354

Fax

Applicable Funding Source* Please indicate the funder(s) of the research described in this manuscript, and the associated grant reference numbers.

No Relevant Funding

| Funder(s) * | Grant Reference Number | |
|----------------------|------------------------|-------|
| <input type="text"/> | <input type="text"/> | Clear |
| <input type="text"/> | <input type="text"/> | Clear |
| <input type="text"/> | <input type="text"/> | Clear |
| <input type="text"/> | <input type="text"/> | Clear |

If your funder does not appear in the list above, please enter your funders details in the box provided below.

Please select at least one item from the Applicable Funding Source

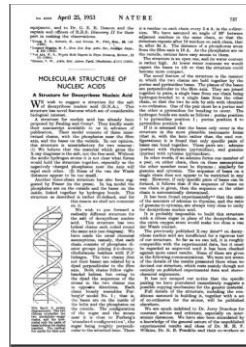


How CHORUS Works: **Preservation**



**Government
maintained
or other
3rd-party dark
archive**

How CHORUS Works: Access



Funding Agency Embargo Period Expires
or Author/Funder Pays for Immediate Public Access



Accepted Author Manuscript
becomes publicly accessible



Version of Record
Becomes publicly accessible

The screenshot shows the Physical Review Letters website interface. At the top, it says 'Physical Review Letters' with the tagline 'moving physics forward'. Below that, there are navigation links for Home, Browse, Search, Subscriptions, and Help. A search bar is present with 'Phys. Rev. Lett.' selected. The main content area displays the article title 'Anisotropic N=4 Super-Yang-Mills Plasma and Its Instabilities' and provides options to download a PDF or buy the article. The authors listed are David Mateos and Diego Trancese. The website also features a 'Physics' logo and a 'Committed to Excellence' badge.

The screenshot shows the Structure journal website interface. At the top, it says 'Structure' with navigation links for Press Room, Cell Synopses, Jobs, Webinars, and Mobile. There are also links for Login, Register, Subscribe, and Alerts. A search bar is visible. The main content area displays the article title 'Structure of a Virulence Regulatory Factor CvfB Reveals a Novel Winged Helix RNA Binding Module' and provides options to view the full text or download a PDF. The authors listed are Yasuhiko Matsunishi, Gingshu Xu, Shinya Miyazaki, Chikara Kato, Carol L. Farr, Herbert L. Axelrod, Hai-Ju Chiu, Heath E. Kluck, Mark W. Knuth, Mitchell D. Miller, Marc-André Estégar, Ashley M. Deason, Adam Godkin, Scott A. Lesley, Kazuhisa Sekimizu, and Ian A. Wilson. The website also features a 'Cell Career Network Structure Jobs' logo and a 'Featured Advertisers' section.

How CHORUS Works: Discovery



DEPARTMENT OF ENERGY
PAGES
Search DOE's Public Access Gateway for Energy & Science

Search Results for: zheng

1. Simple Cloning via Direct Transformation of PCR Product (DNA Multimer) to Escherichia coli and Bacillus subtilis
by Yu, Chun, Zhang, Xiao-Duo, Zhang, Y.-H. Perical (Mar 2012)
Applied and Environmental Microbiology

2. Chromium(III) Nanoparticles as Effective Catalyst for the Conversion of Glucose into 5-Hydroxymethylfurfural
by He, Jingnan; Zhang, Yantao; Chen, Eugene Y.-X. (Jan 2012)
Owen&Owen

Google



Text and Data-Mining
Services



Q us department of e

U.S. Department of Education United States

U.S. Department of Energy United States



 Include funding from sub-organizations

U.S. DEPARTMENT OF ENERGY

Research and Development, Office of Electricity Delivery and Energy Reliability

Technology Innovation and Development, Office of Environmental Management

Public Information, Office of Public Affairs

Nuclear Facility Operations, Office of Nuclear Energy

Clean Coal, Office of Fossil Energy

Advanced Scientific Computing Research, Office of Science

Biomass Program, Office of Energy Efficiency and Renewable Energy

Office of Space and Defense Power Systems, Office of Nuclear Energy

Energy Policy, Office of General Counsel

SORT BY: **RELEVANCE** PUBLICATION YEAR

[DOWNLOAD AS CSV](#)

PAGE 1 OF 1,156 RESULTS

The effect of composition on pressure-induced devitrification in metallic glasses

Journal Article published **2013** in **Applied Physics Letters** volume **102** issue **17** on page **171905**

Research funded by National Science Foundation (EAR 06-49658, EAR 10-43050, EAR-0622171) | U.S. Department of Energy (DE-AC02-05CH11231, DE-AC02-06CH11357, DE-FG02-94ER14466, DE-FG02-99ER45775, DE-NA0001974, DE-SC0001057, DOE-BES)

Authors: Qiaoshi Zeng, Wendy L. Mao, Hongwei Sheng, Zhidan Zeng, Qingyang Hu, Yue Meng, Hongbo Lou, Fang Peng, Wenge Yang, Stanislav V. Sinogeikin, Jian-Zhong Jiang

<http://dx.doi.org/10.1063/1.4803539> [Actions](#)

Magnetolectric coupling at the EuO/BaTiO₃ interface

Journal Article published **2013** in **Applied Physics Letters** volume **102** issue **17** on page **172402**

Research funded by National Science Foundation (0820521) | Army Research Office (W911NF-10-1-0362) | U.S. Department of Energy (DE-SC0004876)

Authors: S. Cao, P. Liu, J. Tang, H. Lu, C.-W. Bark, S. Ryu, C. B. Eom, A. Gruverman, P. A. Dowben

<http://dx.doi.org/10.1063/1.4803492> [Actions](#)

Spectrally and time resolved photoluminescence analysis of the CdS/CdTe interface in thin-film photovoltaic solar cells

Journal Article published **2013** in **Applied Physics Letters** volume **102** issue **17** on page **173902**

API Integration with Agency Portals

OSTI Home DOE PAGES Home DOE PAGES FAQ DOE PAGES Feedback Site Map Contact Us DOE Home »

DEPARTMENT OF ENERGY
PAGES BETA

Search DOE's Public Access Gateway for Energy & Science

zhang

DOE PAGES / Search Results / Page 1 Basic Search in use ... see the [FAQ](#) for tips on using search types

Search Results for: zhang

Total Results 858 Page 1 of 86

Filtered Results

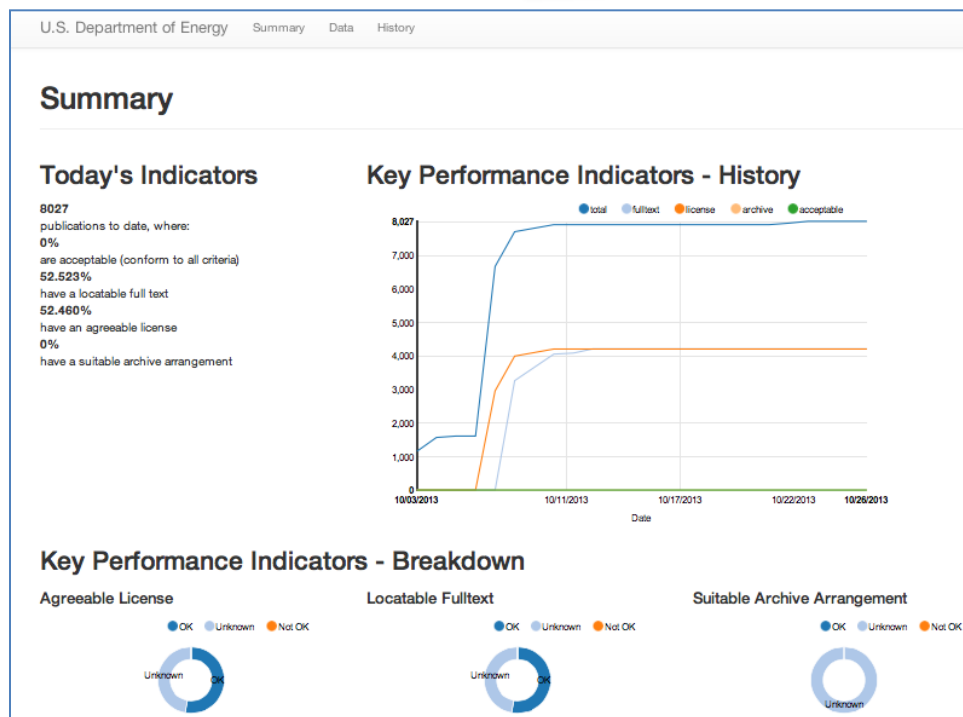
FILTER RESULTS
Filter by Author

SAVE RESULTS
Export these results to Excel

- Simple Cloning via Direct Transformation of PCR Product (DNA Multimer) to Escherichia coli and Bacillus subtilis**
by You, Chun; **Zhang**, Xiao-Zhou; **Zhang**, Y.-H. Percival (Mar. 2012)
Applied and Environmental Microbiology
We developed a general restriction enzyme-free and ligase-free method for subcloning up to three DNA fragments into any location of a plasmid. The DNA multimer generated by prolonged overlap extension PCR was directly transformed in Escherichia coli [e.g., TOP10, DH5 α , JM109, and BL21(DE3)] and Bacillus subtilis for obtaining chimeric plasmids.
- Chromium(0) Nanoparticles as Effective Catalyst for the Conversion of Glucose into 5-Hydroxymethylfurfural**
by He, Jianghua; **Zhang**, Yuetao; Chen, Eugene Y.-X. (Jan. 2013)
ChemSusChem
It's nano: Small and uniform chromium nanoparticles, either preformed or generated in situ, effectively catalyze the conversion of glucose into 5-hydroxymethyl furfural. The results compare favorably with those achieved by using a catalyst system based on divalent CrCl₂ in ionic liquids (ILs). In addition, the chromium nanoparticles are found in the CrCl₂/IL system, and the implications of their presence in that system is investigated.

How CHORUS Works: Compliance

API and Dashboards for monitoring and tracking publisher contributions to the CHORUS system



Live CHORUS DOE dashboard:

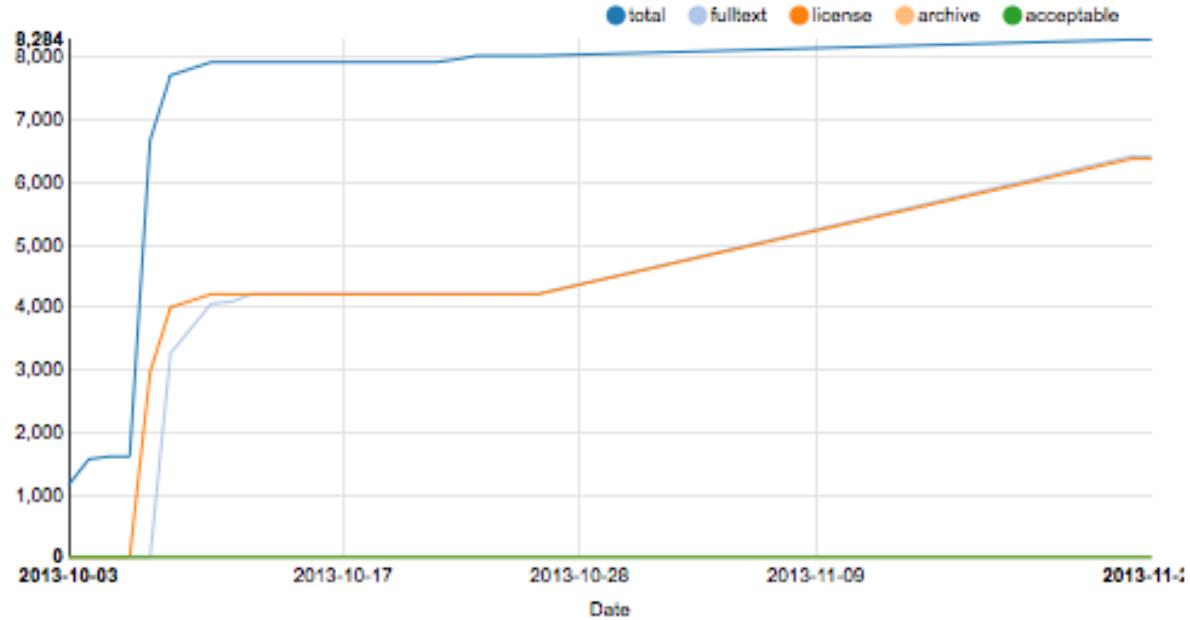


Today's Indicators

8284 publications to date, where:
 0% are acceptable (conform to all criteria)
 77.487% have a locatable full text
 76.980% have an agreeable license
 0% have a suitable archive arrangement

Deposits identifying US DOE funding

Key Performance Indicators - History



Key Performance Indicators - Breakdown

Agreeable License

Records having agreeable licenses



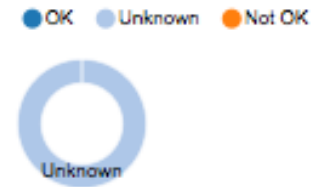
Locatable Fulltext

Content tested for public accessibility



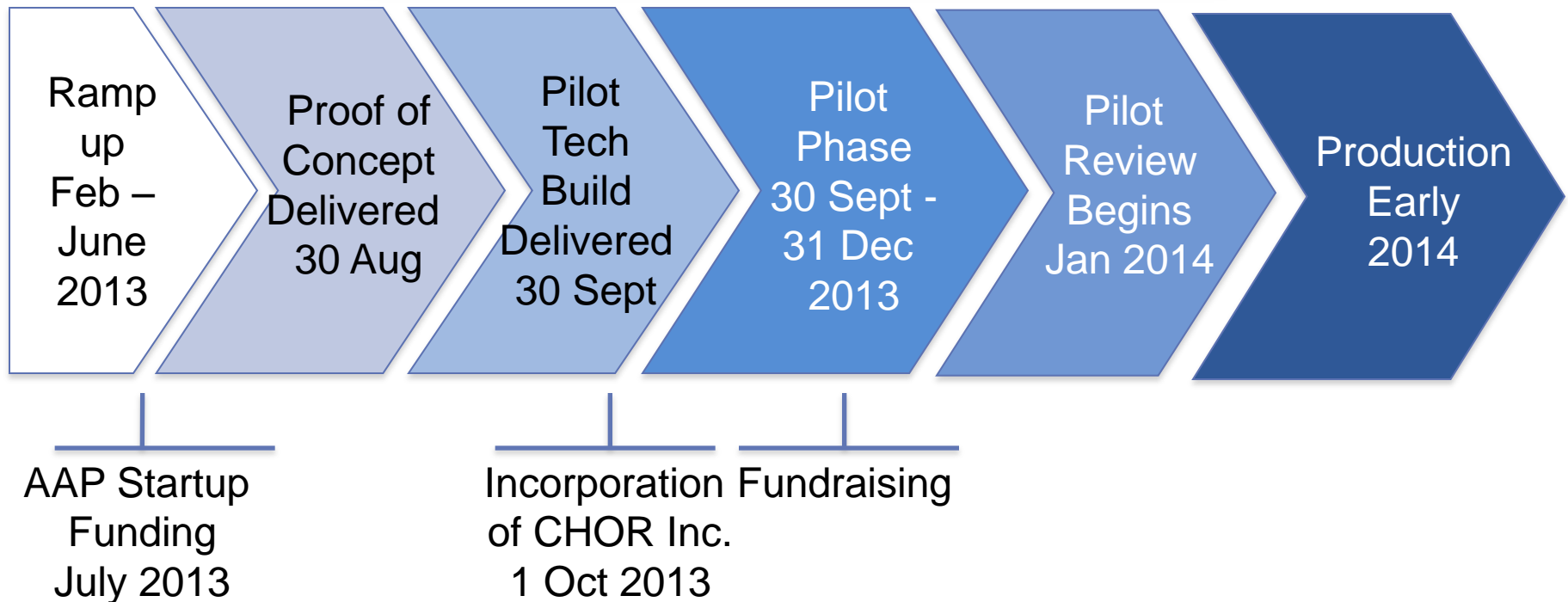
Suitable Archive Arrangement

Deposits made to dark archives



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What Do Publishers Need To Do?

- Become a signatory of CHORUS
- Become a member of CrossRef
- Sign up for FundRef as part of CrossRef membership
- Submit Agency Related data to FundRef for all new content
- Send public access content reuse License and Embargo metadata to CrossRef
- Deposit full text URIs with CrossRef Prospect
- Sign CHORUS Pilot Agreement
- Send relevant content to archiving service

CHORUS Live Pilot Services

<http://dashboard.chorusaccess.org/usdoe>

<http://dashboard.chorusaccess.org/usda>

<http://dashboard.chorusaccess.org/nsf>

<http://search.chorusaccess.org>

7+ pilot publishers

13,000+ pilot records

80+ publisher signatories

Identification • Discovery • Access • Preservation • Compliance



The logo for CHORUS (Clearinghouse for the Open Research of the United States) features the word "CHORUS" in a blue, sans-serif font. The letter "O" is stylized as a circle with an arrow pointing upwards and to the right, symbolizing research or progress.

Clearinghouse for the **Open Research** of the United States

Become a Signatory!
www.chorusaccess.org

Contact: Howard Ratner
hratner@chorusaccess.org

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Time's Up!

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