



## Department of Energy

Office of Scientific and Technical Information

Post Office Box 62

Oak Ridge, Tennessee 37831

August 10, 2016

Re: OSTI-2016-01064-F

Dear Mr. Ravnitzky:

This is in final response to the request for information you sent to the Department of Energy (DOE), Office of Scientific and Technical Information (OSTI) under the Freedom of Information Act (FOIA), 5 U.S.C. 552 on June 22, 2016.

You requested a "copy of records, electronic, or otherwise, of each letter TO and FROM universities, companies, and organizations, from the OSTI 'cold fusion' documents collection." On July 11, 2016, you were emailed an interim response letter informing you of the need for OSTI to obtain release authorization from the Department of Energy. OSTI received notification to release the letters to you in their entirety on August 8, 2016. As a result, OSTI is releasing 72 cold fusion letters in this mailing on a CD-ROM because of the volume and file size of the PDFs.

In addition, there are approximately 13 letters that are currently being reviewed by the DOE's General Counsel Office (GC) for release or redaction. Upon receipt of guidance from GC, OSTI will release in whole or in part.

This decision, as well as the adequacy of the search, may be appealed within **90** calendar days from your receipt of this letter pursuant to 10 C.F.R. § 1004.8. Appeals should be addressed to Director, Office of Hearings and Appeals, HG-1, L'Enfant Plaza, U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, D.C. 20585-1615. The written appeal, including the envelope, must clearly indicate that a FOIA appeal is being made. You may also submit your appeal to [OHA\\_filings@hq.doe.gov](mailto:OHA_filings@hq.doe.gov), including the phrase "Freedom of Information Appeal" in the subject line. The appeal must contain all of the elements required by 10 C.F.R. § 1004.8, including a copy of the determination letter. Thereafter, judicial review will be available to you in the Federal District Court either: 1) in the district where you reside; 2) where you have your principal place of business; 3) where DOE's records are situated; or 4) in the District of Columbia.

You may contact OSTI's FOIA Public Liaison, Charlene Luther, Office of Preservation and Technology at 865.576.1138 or by mail at the Department of Energy, Office of Scientific and Technical Information, 1 Science.gov Way, Oak Ridge, TN 37830 for any further assistance and to discuss any aspect of your request. Additionally, you may contact the Office of Government Information Services (OGIS) at the National Archives and Records Administration to inquire about the FOIA mediation services they offer.

The contact information for OGIS is as follows: Office of Government Information Services, National Archives and Records Administration, 8601 Adelphi Road-OGIS, College Park, Maryland 20740-6001, e-mail at [ogis@nara.gov](mailto:ogis@nara.gov); telephone at 202-741-5770; toll free at 1-877-684-6448; or facsimile at 202-741-5769.

If you have any questions about the processing of the request or about this letter, please contact Madelyn M. Wilson at

Sincerely,



Madelyn M. Wilson  
FOIA Officer  
DOE OSTI  
1 Science.gov Way  
Oak Ridge, TN 37830

ER DOCUMENT LOGGING SYSTEM  
CONTROL TICKET

ER DOCUMENT NO: 6-004657    rec'd 10/16/96  
ES NO:                            rec'd    /    /

DOCUMENT TYPE: Letter dated 10/08/96  
DOCUMENT SOURCE: Public Mail                            XREF KEY:  
FROM: BOCKRIS, O'M. J.  
TEXAS A&M UNIVERSITY

ADDRESSED TO: KREBS, MARTHA

SUBJECT:  
MEMORANDUM CIRCULATED AT THE SECOND INTERNATIONAL ULTRA  
LOW ENERGY NUCLEAR REACTIONS CONFERENCE, HELD IN COLLEGE  
STATION, TEXAS ON SEPTEMBER 13 AND 14  
LETTER FROM J. O'M. BOCKRIS

DUE DATE: N/A  
ACTION TYPE: Appropriate Action  
RESPONSIBLE FOR REPLY: ER-10 DEHMER  
OTHER CONCURRENCE:  
OFFICIAL SIGNATURE:

COMPLETION DATE: N/A

ADDITIONAL COMMENTS:

If this document requires action, please notify the ERCCC.

*ER-20 O'Bylon*  
*PULANSIC*  
*ER-30*

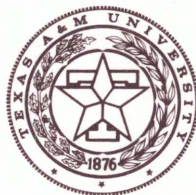
REFERRED TO	REQUIRED ACTION	PASSED	COMMENTS/STATUS
1. ER-4 WILSON	Information Only	10/16/96	
2. ER-2 DECKER	Information Only	10/16/96	

*File - Cold "Fusion"*  
*No need to reply*  
*W/ 10/31*

## **DISCLAIMER**

**Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.**

New Energy Times



**TEXAS A&M UNIVERSITY**

Department of Chemistry  
College Station, Texas 77843-3255  
(409) 845-2011  
FAX (409) 845-4719

*John O'M. Bockris*  
Distinguished Professor  
Email - [bockris@chemvx.tamu.edu](mailto:bockris@chemvx.tamu.edu)  
tel (409)845-5335  
fax (409)845-4205

October 8, 1996

Dr. Martha A. Krebs  
Director, Office of Energy Research  
U.S. Department of Energy (ER-1) Room 7B05B  
1000 Independence Avenue SW  
Washington, D.C. 20585

Dear Dr. Krebs:

The enclosed is a memorandum circulated at the Second International Ultra Low Energy Nuclear Reactions Conference, held in College Station, Texas on September 13 and 14.

A list of conference attendees is also enclosed, if you should wish to contact any who signed the memorandum for verification.

Sincerely,

J. O'M. Bockris  
Distinguished Professor of Chemistry

JOMB/bvm

Enclosures

cc: D. Nagel



## ULTRA-LOW ENERGY NUCLEAR REACTIONS

In 1989, claims were made by Fleischmann and Pons (University of Utah) that deuterons, introduced into palladium at high fugacity, gave rise to heat of nuclear origin.

A program of testing was immediately initiated in all D.O.E. labs. This failed. Thus, a long (hundreds of hours) period of electrolysis is necessary before nuclear phenomena are manifest. This was not known to the early researchers. Consequently, the opinion spread that Fleischmann and Pons claims were invalid.

Since 1989, more than 1000 scientific papers on this subject have been published. The following is a list of what has been firmly established.

(1) In the Palladium-deuterium system, helium and tritium can be formed. The amount of the helium is a substantial fraction of that necessary to explain the observed heat, according to the process  $D + D \rightarrow He^4 + \gamma$ . The tritium arises from a side reaction and the amount is less than 1% of that needed to explain the heat.

(2) Heat can be produced at densities of between 10 and 1000 watts  $cc^{-1}$ . The use of thin films is an important condition for success.

(3) A number of new nuclei are produced in the near surface region.

(4) Other phenomena (e.g., the emission of X-rays) are seen.

Work on the theory of these phenomena has begun and some papers describing it have been published in established Journals of Chemistry.

These new phenomena (commonly called cold fusion but more accurately named "ultra low energy nuclear reactions") are studied under government sponsorship abroad, particularly in Japan, Russia and Italy. Their importance is manifest and in particular:

(i) The existence of such reactions (first hinted at by J.J. Thompson in 1913; and manifest clearly in little known experiments by Enrico Fermi in 1937) leads to a modification of the current theory of nuclear reactions. Before 1989 such processes would have been regarded as impossible.

(ii) The phenomena offer important technological opportunities, e.g., the low cost production of tritium, and the the production of nuclear heat without the accompaniment of dangerous nuclear wastes.

The United States remains behind in the competition for practical technology from low temperature nuclear reactions. We recommend a government research budget of more than \$10M/yr (Japanese government support alone: \$12M/yr.)

Signed:

*Ken Shockley*  
*Jerry WoDecker*  
*Rod Neal*  
*Robert Hout*  
*Wan Juh*  
*Willott Moore*  
*2. Paday*  
*Chad Johnson*  
*John Chasch*

*Michael Roberts*  
*Les Rothwell*  
*T. Chman*  
*M. Smith*  
*S. Szymon*  
*Tadafiko Miyama*  
*E. de Sere*  
*1091 G. 1012*  
*Rayold L. Fox*  
*George H. Wiley*

*J. J. Man*  
*C. G. B. B.*  
*W. H. W. W.*  
*J. Can*  
*Benjamin*



## Attendees

Mr. Ernst Bauer  
Burns Developments Ltd.  
Box 33003 Nordel Postal Outlet  
Delta, B.C., Canada V4C 8E6  
(T) 604-250-8772  
(F) 604-940-0252

Mr. Charles Becker  
ENECO  
8415 Datapoint Dr., Suite 1000  
San Antonio, TX 78229  
(T) 210-616-0000  
(F) 210-616-0001

Dr. Lee Don Biewski  
Institute of Post Industrial Agriculture  
11102 Favor Rd.  
College Station, TX 77845  
(T) 409-823-4157  
(F) 409-696-2003

Dr. J. O'M. Bockris  
Department of Chemistry  
Texas A&M University  
College Station, TX 77843  
(T) 409-845-5335  
(F) 409-845-4205

Mr. Emre Brookes  
(T,F) 210-537-4527  
electra@texas.net  
emre@texas.net

Dr. Ben Bush  
University of Texas

Dr. Albert Cau  
18, Boulevard Arago  
75013 Paris, France  
(T) 33-1-43-31-27-70  
(F) 1- 43- 31- 27- 70  
art@imaginet.fr

Dr. Thomas Claytor  
Los Alamos National Lab.  
C 914  
Los Alamos, NM 87545  
(T) 505-667-6216  
(F) 505-665-7176  
CLAYTOR-t-n@lanl.gov

Dr. John Dash  
Portland State University  
Physics Department  
PO Box 751  
Portland, OR 97207-0751  
(T) 503-725-4222  
(F) 503-725-3888  
dashj@sbii.sbz.pdx.edu

Mr. Jerry W. Decker  
Vanguard Sciences/KeelyNet  
PO Box 870716  
Mesquite, TX 75187  
(T) 214-324-8741, 214-324-3501  
(F) 214-324-8741  
jdecker@keelynet.com

Mr. James Dunn  
Center for Technology  
1400 Computer Drive  
Westboro, MA 01581  
(T) 508-870-0042  
(F) 508-366-0101  
jdunn@ctc.org

Mr. Hal Fox  
Fusion Info Center  
P.O. Box 58639  
Salt Lake City, UT 84158  
(T) 801-583-6232  
(F) 801-583-2963

**Mr. Russ George**  
E-Quest Sciences  
3309 Alma St.  
Palo Alto, CA 94306  
(T) 415-493-4515(H), 856-4217(W)

**Mr. Toby Grotz**  
Wireless Engineering  
760 Prairie  
Craig, CO 81625  
(T) 970-824-6834  
(F) 970-824-7864

**Dr. Robert W. Horst**  
Technical Director  
Tandem Computers Incorporated  
12386 Larchmont Ave.  
Saratoga, CA 95070  
(T) 408-285-9855  
(F) 408-285-9818  
E-Mail bhorst@loc100.tandem.com

**Mr. Douglas A. Jewett**  
Technical Director  
Tandem Computers Incorporated  
14231 Tandem Blvd.  
Austin, TX 78728  
(T) 512-432-8273  
(F) 512-432-8588  
E-Mail dej@lsd.tandem.com

**Dr. Y. E. Kim**  
Purdue University  
Physics Department  
West Lafayette, IN 47907  
(T) 317-494-3042  
(F) 317-494-0706

**Dr. Yan Kucherov**  
ENECO  
University of Utah Research Park  
391-B Chipeta Way  
Salt Lake City, Utah 84108  
(T) 801-583-2000  
(F) 801-583-6245

**Mr. James C. Lanshe**  
Norcross & Company  
645 East Missouri, Suite 119  
Phoenix, AZ 85012  
(T) 602-234-5555  
(F) 602-234-8923  
xgld@aol.com

**Dr. Edward Lewis**  
P.O. Box 13050  
Chicago, IL 60613

**Dr. Guang H. Lin**  
Department of Chemistry  
Texas A&M University  
College Station, TX 77843  
(T) 409-845-3661  
(F) 409-845-4205  
ghlin@greenoil.chem.tamu.edu

**Dr. Barry Merriman**  
UCLA, Dept. of Math.  
405 Hilgrad Ave.  
LA, CA90095-1555  
(F) 310-206-2679

**Dr. Andrew Michrowski**  
Planetary Clean Energy Association  
100 Bronson Avenue, Suite 1001  
Ottawa, Ontario K1R6G8, Canada  
(T) 613-236-6265  
(F) 613-238-4437  
cc840@freenet.carleton.ca

**Dr. George Miley, Editor**  
Fusion Technology  
Dept. of Nuclear Engineering  
University of Illinois  
Urbana, IL 61801  
(T) 217-333-3772  
(F) 217-333-2906  
g-miley@uiuc.edu



**Dr. Z. Minevski**  
Lynntech  
7610 Eastmark Dr. #105  
College Station, TX 77840  
(T) 409-693-0017

**Dr. Tadahiko Mizuno**  
Faculty of Engineering  
Department of Nuclear Engineering  
Hokkaido University  
Sapporo 060, Japan  
(T) 81-11-706-6689  
(F) 81-11-706-7835

**Dr. Roberto Monti**  
National Research Council  
Via Godetti 101  
Bologna, Italy 40129  
(T) 011-39-51-639-8702  
(F) 011-39-51-639-8724

**Mr. R. Elliott Moore**  
REM Enterprises  
135 Jung Dr. #5  
Hot Springs, AR 71913  
(T) 501-525-6706

**Mr. Richard T. Murray**  
Room For All  
HCR 70 Box 515  
Pecos, NM 87552  
(T) 505-757-6145 (home)  
(T) 505-699-4122 (cellular)

**Dr. David J. Nagel**  
Naval Research Laboratory, Code  
6600  
4555 Overlook Ave. S.W.  
Washington, DC 20375-5345  
(T) 202-767-2931  
(F) 202-767-3709

**Dr. Joseph B. Natowitz**  
Department of Chemistry  
Texas A&M University  
College Station, TX 77843  
(T) 409-845-1411

**Mr. Rod Neal**  
Morning Star Energy  
514 West Sharon Rd.  
Cincinnati, Ohio 45240  
(T) 513-825-3456

**Mr. F. Oliver Nicklin, President**  
First Analysis Corporation  
233 South Wacker Dr., Suite 9500  
Chicago, IL 60606  
(T) 312-258-7107, 1400  
(F) 312-258-0334

**Dr. Tadayoshi Ohmori**  
Catalysis Research Center  
Hokkaido University  
Sapporo 060, Japan  
(T) 81-11-511-7755  
(F) 81-11-709-4748

**Dr. Georgiy S. Rabzi**  
Ukrainian International Academy of  
Original Ideas  
Rooms 322  
42 Kanatnaya St.  
Odessa, Ukraine 270014  
(T) 7-0482-223129, 7-0482-221323  
(F) 7-0482-253493

**Mr. Jim Redding**  
CETI  
One Lincoln Center  
5400 LBJ Freeway Ste. 950  
Dallas, TX 75240  
(T) 214-982-8340  
(F) 214-982-8349

Dr. Robert R. Reeber(ARO)  
P.O. Box 12211  
Research Triangle Park,  
North Carolina 27709  
(T) 919-549-4318  
(F) 919-549-4399  
reeber@aro.ncrn.net

Mr. Michael Roberts  
American Association of  
Gravity Field Energy  
P.O. Box 3006  
Waco, TX 76707  
(F) 817-754-7953  
(T) 817-756-0196  
817-752-1639 ext. 131(W)

Dr. Jed Rothwell  
Cold Fusion Research Advocates  
2050 Peachtree Industrial Court  
Suite 113-A  
Chamblee, Georgia 30341

Mr. E. Don Rott  
3137 Amherst  
Dallas, TX 75225  
(T) 214-691-1900  
(F) 214-696-1748  
E-Mail: edonrott.@NKN.Net

Mr. Tatsuki Shirasawa  
Department of Nuclear Engineering  
Hokkaido University  
Kita 13 Nishi 8  
Sapporo, Hokkaido 001Japan  
(T) 011-706-7689  
tatsuki  
shirasawa@hines.hokudai.ac.jp

Mr. Kenneth R. Shoulders  
1025 Freestone Ranch Road  
P.O. Box 243  
Bodega, CA 94922-0243  
(T) 707-876-1880  
(F) 707-876-1883

Dr. Edmund Storms  
ENECO  
270 Hyde Park Estates,  
Santa Fe, NM 87501  
(T) 505-988-3673

Dr. Mitchell Swartz  
JET Energy Technology  
16 Pembroke Road  
Weston, MA 02193  
(T) 617-237-3625

Dr. Stanley Szpak  
3498 Conrad Ave.  
San Diego, CA 92117  
(T) 619-272-9401  
(T) 619-553-1588  
(F) 619-553-1769

Mr. Dan York  
Vida Force, Inc  
2415 Hillglenn Rd.  
Dallas, TX 75228  
(T) 214-327-5168  
(F) 214-327-0958  
Danyork@iadfw.net