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, 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; 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

BRIGHAM YOUNG
UNIVERSITY

THE GLORY OF GOD
IS INTELLIGENCE

May 7, 1990

Profs. J. Briand, G. Ban, M. Froment, M. Keddam and F. Abel
Universite P. et M. Curie et University Paris VII.
2-4 Place Jussieu
Paris 75005, FRANCE

Dear Colleagues,

Today I read your abstract entitled "On the cold fusion rates claimed by Jones" and ask that you consider some comments and questions. You say that "It has been demonstrated that in the Jones experimental conditions, all cations of the solution are first deposited, blocking any deuterium penetration." However, we have measured the deuterium loading in both Pd and Ti and have demonstrated that the loading is greater than zero, although much larger for the Pd. This is an issue that we should be able to resolve by dialogue, so I wish to pose several questions. In addition, I am sending by express mail recent papers which will provide information to you that you may currently lack but which is clearly relevant to your paper. In particular, you state that you have observed no fusion in TiD_2, in titanium foils. Please observe that we do not use Ti foils, and that we specifically avoid full deuteriding of metals (this latter is the P/F approach, certainly not ours).

Let us consider first the "Jones experimental conditions." Did you use fused titanium, as specified in our Nature paper? We did not use titanium foils. (See also my paper presented at the Sante Fe Workshop, sent by mail, and accepted for J. Fusion Energy.) If you used titanium foils instead of the material we prescribed, then you did not follow the "Jones experimental conditions." The large surface-to-volume ratio of fused titanium is significant, we judge. In particular, this quality may facilitate deuterium loading into the titanium. A photomicrograph of fused titanium is attached, showing the demonstrably rough surface structure of the material, which is significantly different from that of titanium foil.

You say that the deposition of cations blocks "any deuterium penetration." That is a strong statement, but without numerical value. Can you be quantitative? What is the upper limit on deuterium penetration into fused titanium? Measuring the d/metal ion (d/m) ratio in fused Ti is difficult because the material is multi-faceted and the lattice holds deuterium tightly. The d diffusion rate is low at room temperature, so we expect d/m to be small except near the surface in the cathodes, and we expect the titanium-deuteride phase boundary to move, providing the non-equilibrium conditions we seek. (See E. Brauer et al., Ber.

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Bunsenges. Phys. Chem. 87: 341-345, 1983, and my Sante Fe Proc. paper.) We have measured the deuterium in fused Ti cathodes by first drying the cathode in vacuum at up to 50 C, then by driving off deuterium by heating. The gas was verified to be deuterium (or hydrogen in the case of controls) since it was effectively gettered by hot Ti (over 400 C). We measured d/m in the Ti cathodes to be 0.5% (average). The d/m ratio is calculated as a ratio of the total moles of deuterium (atoms) driven off divided by the moles of Ti in the cathode being tested.

The d/m ratio in palladium, where we used sponge (mostly) and roughened foil forms, was determined by the increase in resistivity of palladium deuteride. Using a four-point probe and milli-ohmmeter, we found d/m to be about 0.6 for the Pd electrodes. Again I emphasize that we have not sought fully-deuterided materials like others including Pons and Fleischmann. Rather, we seek non-static conditions for partially-deuterided metals (see my paper for the Oxford Workshop Proceedings, mailed separately). Please do not confuse our approach with theirs.

I hope this information (and that being mailed) will be useful. And I look forward to hearing your response to the questions and comments posed above.

Sincerely,

Steven E. Jones

Steven E. Jones

cc: A. Bertin, R. Gajewski