

CFRL English News No. 104 (2018. 1. 20)

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(Back numbers of this News are posted at the above geocities and/or PSU sites of the CFRL Websites)

CFP (Cold Fusion Phenomenon) stands for

“Nuclear reactions and accompanying events occurring in open (with external particle and energy supply), non-equilibrium system composed of solids with high densities of hydrogen isotopes (H and/or D) in ambient radiation” belonging to Solid State-Nuclear Physics (SSNP) or Condensed Matter Nuclear Science (CMNS).

This is the *CFRL News* (in English) No.104 for Cold Fusion researchers published by Dr. H. Kozima, now at the Cold Fusion Research Laboratory, Shizuoka, Japan.

This issue contains the following items:

- 1. JCF18 was held on November 24 – 25, 2017 in Sendai, Japan**
- 2. ICCF21 will be held on June 1 – 4, 2018 in Fort Collins, Co., USA**
- 3. ICANP-2018 will be held in Osaka, Japan on July 23 – 25**
- 4. JCF19 will be held in Morioka, Japan in October (or November), 2018**
- 5. Abstract of H. Kozima “Development of the Solid State-Nuclear Physics” to be presented at ICANP-2018**
- 6. *Proceedings of ICCF20* was published.**

1. JCF18 was held on November, 24—25, 2017 in Sendai,

Japan

JCF18 was held at Tohoku University in Sendai on November 24 – 25.

Program and Abstracts of papers to be presented at the Conference are posted at the following JCF website:

Program; <http://jcfrs.org/JCF18/jcf18-program.pdf>

Abstracts; <http://jcfrs.org/JCF18/jcf18-abstracts.pdf>

Program of the Conference is cited below for the convenience of the readers.

Program of JCF18 Meeting

Japan CF-Research Society

Date; November 24-25, 2017

Place; Mikamine Hall, Research Center for Electron Photon Science, Tohoku University,
Sendai, Japan

Presentation; Oral presentation 25 min. + Discussion 5 min.

Language; English or Japanese

Abstract Book; Only available at JCF home page (<http://jcfrs.org/>)

November 24 (Fri), 2017

12:00-13:00 Registration

13:00-13:10 Opening Address Y. Iwamura (Tohoku University)

Session 1 Chairman; K. Tsuchiya (NIT, Tokyo)

13:10-13:40 **JCF18_01** K. Tanabe et al. (Kyoto U.)

Direct Joule Heating of D-Loaded Pd Plates in Vacuum

13:40-14:10 **JCF18_02** Y. Sato et al. (Iwate U.)

Deuterium desorption experiments using Pd-Zr and Pd-Ni-Zr multi-layered samples

14:10-14:40 **JCF18_03** H. Numata

Search for characteristic microstructure of Pd rod formed during repeated cathodic and anodic electrolysis

14:40-15:00 Break

Session 2 Chairman; S. Narita (Iwate U.)

15:00-15:30 **JCF18_04** A. Kitamura et al. (Technova Inc.)

Comparison of excess heat evolution from zirconia-supported Pd-Ni nanocomposite samples with different Pd/Ni ratio under exposure to hydrogen isotope gases

15:30-16:00 **JCF18_05** Y. Iwamura et al. (Tohoku U.)

Reproducibility on Anomalous Heat Generation by Metal Nanocomposites and Hydrogen Isotope Gas

16:00-16:30 **JCF18_06** M. Kishida et al. (Kyushu U.)

Measurement of Anomalous Heat Generation in Hydrogen Flow by Differential Scanning Calorimetry

16:30-17:00 **JCF18_07** T. Hioki et al. (Nagoya U.)

In-situ XRD and XAFS Analyses for Metal Nanocomposites used in Anomalous Heat Generation Experiments

17:00-17:10 Break

17:10-17:30 JCF Annual Meeting

17:30-20:00 Reception

November 25 (Sat), 2017

Session 3 Chairman; Y. Iwamura (Tohoku U.)

9:30-10:00 **JCF18_08** K. Tsuchiya (NIT, Tokyo)

Progress of density functional methods in LENR and their problems II

10:00-10:30 **JCF18_09** K. Tanabe (Kyoto U.)

Theoretical Investigation of Plasmonic Field Enhancement on Planar Metal Surfaces

10:30-11:00 **JCF18_10** K. Ooyama (Ooyama Power Inc.)

Nuclear Fusion Mechanism in Crystal

11:00-11:15 Break

Session 4 Chairman; H. Numata

11:15-11:45 **JCF18_11** K. Tanabe (Kyoto U.) Is the Heat Difference between D and H Really a Sign of Fusion?

11:45-12:15 **JCF18_12** H. Miura

Water Clusters Related to OHMASA-GAS

12:15 Adjourn

The Proceedings of JCF18 will be published and posted at JCF website:

http://jcfrs.org/proc_jcf.html

2. ICCF21 will be held in Fort Collins, Co., USA on June 1 – 4, 2018

ICCF-21 will be held on June 3 - 8, 2018 at The Lory Student Center at Colorado State University, in Fort Collins, Co., in the U.S.

Details of the Conference is posted at the ICCF21 website;
<https://www.iccf21.com/>

The conference organization can be reached by email at addresses below and also via a link at the bottom of the conference website page.

Steve Katinsky; katinsky@lenria.org ;

David Nagel; nagel@lenria.org

3. ICANP-2018 will be held in Osaka, Japan on July 23 – 25

The Scientific Federation will open an international conference “**International Conference on Atomic & Nuclear Physics – Cutting edge Advancements in Atomic & Nuclear Physics** –” on July 23 – 25, in Osaka, Japan as posted at the Scientific Federation website;

<http://scientificfederation.com/atomic-nuclear-physics-2018/>

They asked me (H.K.) to present a paper at the Plenary Session on the first day, July 23. I have decided to present a paper “Development of the Solid State-Nuclear Physics,” the Abstract of which is cited below (in Article 5) to advertise the existence of a new research field in between solid state physics and nuclear physics as investigated as cold fusion phenomenon or condensed matter nuclear science.

The **Scientific Federation** is established and working with the following purpose or ambition declared as follows at its website <http://scientificfederation.com/> ;

The Scientific Federation is expert-driven and is initiated to organize and facilitate proficient and international scientific conferences worldwide with associating the world class researchers. The Scientific Federation is establishing outstanding, direct communication between the researchers whether they are working in the similar field or in interdisciplinary research activities. The Scientific Federation provides an international forum for the appearance and discussion of cutting edge research in the science, medical, clinical, technology, engineering, life sciences and their related researches. In this regard, meet Inspiring Speakers and Experts at our universal meetings inclusive all scientific conferences, workshops and symposiums annually on Science, Technology, Medical, Pharma, Clinical, Engineering and Business. Scientific Federation is provider of information, solutions to enhance the performance and progress of science, medical, health, clinical, engineering and technology professionals, and is empowering them to make better decisions, deliver better care, and sometimes make groundbreaking discoveries, that advance the boundaries of knowledge and

human progress.

I am hoping the Conference will be well organized according to their purpose and my presentation is effective to make people outside our field recognize the reality of the cold fusion phenomenon.

4. JCF19 will be held in Morioka, Japan in October (or November) 2018

It is said that the next JCF19 (19th Annual Meeting of the Japan CF-Research Society) will be held in Morioka, Japan in October (or November), 2018 by Prof. S. Narita of Iwate University as the Conference Organizer. The time and venue of JCF19 will be posted at JCF website immediately after its decision:

<http://jcfrs.org/NEW.HTML>

5. Abstract of H. Kozima “Development of the Solid State-Nuclear Physics” to be presented at ICANP-2018

“Development of the Solid State-Nuclear Physics”

Hideo Kozima

Cold Fusion Research Laboratory

Abstract

Investigation of the cold fusion phenomenon (CFP) for about 30 years since its discovery in PdD_x by M. Fleischmann et al. in 1989 has revealed existence of nuclear reactions in specific solids at near room-temperature without any mechanism of acceleration for particles in the system. The diverse and complex experimental data obtained in materials including hydrogen isotopes piled up in these years have been riddles for almost all scientists. The facts observed in this field, however, suggest existence of new mechanisms for nuclear reactions in such solids (CF materials) as transition-metal hydrides and deuterides, hydrogen graphite, XLPE and microbial cultures. The new mechanisms should be a fundamental element of a new physics in between solid state physics and nuclear physics, which we may call solid state-nuclear physics.

We have developed a phenomenological approach with a model to the CFP to

understand the complex data sets as a whole obtained in this field. The approach has been successful and suggests an outline of the solid state-nuclear physics where neutrons in the CF materials play a key role for the realization of the nuclear reactions. The fundamental premises assumed in the model are investigated using properties of protons (p) and deuterons (d) in CF materials and novel features of the nuclear structure of host elements in them. The extended wavefunctions of p and d and the structure of exotic nuclei seem essential to the CFP.

6. *Proceedings of ICCF20* was published.

Proceedings of ICCF20 (the 20th International Conference on Condensed Matter Nuclear Science, Sendai, Japan), October 02–07, 2016 was published and posted at following website;

<http://lenr-canr.org/acrobat/BiberianJPjcondensedw.pdf>