

Program of JCF24 Meeting

Japan CF-Research Society

Date; December 1-2, 2023
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/>)

December 1 (Fri), 2023

12:00-13:00 **Registration**

13:00-13:05 **Opening Address** Y. Iwamura (Tohoku University)

Session 1 *Chair: M. Kishida (Kyushu U.)*

13:05-13:35 **JCF24_01** K. Naitoh et al. (Waseda U.)
Fluid mechanics on anomalous temperature increase in metal composite powder
exposed to pulsed high-pressure hydrogen gas

13:35-14:05 **JCF24_02** Y. Iwamura et al. (Tohoku U.)
Anomalous heat generation experiments with Ni-based nanostructured metal composites
and hydrogen gas: consideration by material and gas analysis

14:05-14:35 **JCF24_03** T. Itoh et al. (Tohoku U. / Clean Planet Inc.)
IR and Light Radiation Analysis for Spontaneous Heat Burst
during Hydrogen Desorption from Nano-sized Metal composite

14:35-14:50 **Break**

Session 2 *Chair: Y. Iwamura (Tohoku U.)*

14:50-15:20 **JCF24_04** F. Celani et al. (INFN-Frascati, Italy)
Attempts of self-replication of AHE generation by pulsed operations on Constantan wires,
inverse coaxial geometry, under H₂-Ar gas at high temperatures
: role of pulse polarity and shapes

15:20-15:50 **JCF24_05** T. Nemoto et al. (Iwate U.)
Improving Excess Heat Measurement in Hydrogen Desorption Experiment

15:50-16:05 **Break**

Session 3 *Chair: S. Narita (Iwate U.)*

- 16:05-16:35 **JCF24_06** S. Higashi et al. (Kobe U.)
Detection of He-3 Trapped in CuNiZr Materials by Thermal Desorption Spectrometry
- 16:35-17:05 **JCF24_07** H. Miura
Computer Simulation on the Reactions of Band Gaps Collided by Protons/Deuterons
- 17:05-17:35 **JCF24_08** R. Furui (Nano Fusion Design)
The Design of a Low-Energy Nuclear Battery
- 17:35-18:00 **JCF Annual Meeting**
- 18:00-20:00 **Reception**

December 2 (Sat), 2023

Session 4: Industrial Application Session

Chair: K. Naitoh (Waseda U.)

- 9:30-10:00 **JCF24_09** A. Takahashi (New Hydrogen Energy Inc. / Osaka U.)
New Hydrogen Fusion Energy
- 10:00-10:30 **JCF24_10** G. Terabayashi (Smart Fiber Design Associate Co., Ltd.)
Climate change measures and expectations for new energy
- 10:30-11:00 **JCF24_11** K. Ooyama (Ooyama Power Inc.)
Metal Crystal confinement Fusion Reactor
- 11:15-11:45 **JCF24_12** T. Yoshizawa (Z Mechanism Technology Institute Co., Ltd.)
Development of a low-vibration new type internal combustion engine
by using Z-Mechanism and potential applications of this mechanism
- 11:45 **Adjourn**