

5th Korea-Japan Joint Seminar, October 3rd and 4th 2008 Agenda

Seminar Site University of Tokyo, Komaba Campus
Advanced Research Laboratory 4th Floor, Room Number 409

October 3, 2008 Friday AM

10 : 00-10 : 05 Welcome **Prof. Makoto ASASHIMA, University of Tokyo**

10 : 05-10 : 20 Objective of the Seminar: Perspective of Japan
Prof. Makoto ASASHIMA

10 : 20-10 : 35 Objective of the Seminar: Perspective of Korea
Prof. Suk Ho CHUNG, Seoul National University

Prof. Toshio TAGAWA; Chair, 10:35-12:15

■ Fluid Physics

10 : 35-11 : 00 Numerical study of fluid flows in zero-gravity field under external magnetic fields

Prof. Toshio TAGAWA, Tokyo Metropolitan University

11 : 00-11 : 25 Thermophysical property measurement of metallic melts using electromagnetic levitation under microgravity and static magnetic field **Prof. Taketoshi HIBIYA, Keio University**

11:25 -11:50 Microgravity flow characteristics in a jittered container
Mr. Young Moo JI, KAIST, Prof. Jun Sang Park, Halla University and Prof. Jae Min Hyun, KAIST

■ Astrophysics

11 : 50 -12 : 15 A new optical payload for next generation ocean remote sensing from low earth orbit

Prof. Sug-Whan KIM, Mr. Soomin JEONG, Mr. Yukyeong JEONG and Mr. Dong-ok RYU, Yonsei University

12 : 15-13 : 15 **Lunch**

October 3, 2008 Friday PM

Prof. Takeshi NIKAWA, Chair, 13:15-15:20

■ Life Science

13:15-13:40 Regulation of cell signaling in a hibernator muscle: how bats overcome muscle atrophy during hibernation

Prof. Inho CHOI and Mr. Kisoo LEE, Yonsei University

13:40-14:05 Cell culture in JEM experiment **Prof. Makoto ASASHIMA**

14:05-14:30 Sensing mechanism of unloading stress in skeletal muscle cells
Prof. Takeshi NIKAWA, Tokushima University

■ Molecular Biochemistry & Biomedical engineering

14:30-14:55 Focused Proteomics Research: Efforts on Earth for Life in Space, A personal perspective

Prof. Tae-Sung YOON, Korea Research Institute of Bioscience and Biotechnology

14:55-15:20 High-quality protein crystal growth in microgravity and structural analysis

Prof. Masau TANOKURA, University of Tokyo

15:20-15:40 Break

Prof. Atsuki KOMIYA, Chair, 15:40-17:50

15:40-16:05 Analysis of noise map inside the ISS-Russian Module

Prof. Duck-Joo LEE, Prof. Jeong-Gon IH, Mr. Jisung JANG KAIST, Ki-Young KIM, SM Instrument Co.

■ **Combustion**

16:05-16:30 Effect of electric fields on partially premixed flames

Prof. Suk Ho CHUNG, Seoul National University

16:30-16:55 Some topics of microgravity combustion research in Japan

Prof. Osamu FUJITA, Hokkaido University

■ **Materials Science**

16:55-17:20 Precise Measurement Method of Diffusion Field and Its Application to Microgravity Experiments

Prof. Atsuki KOMIYA, Tohoku University

17:20-17:45 Solidification Microstructure of Mg-Zr Light Alloy under Microgravity

Prof. Chi-Hwan LEE, Mr. Won-Seung CHO, Mr. Hyoun-woo KIM, Inha University,

Dr. Seung-Mok YOO, Mr. In-Sung CHO, Mr. Jun-Ho HONG, Korea Institute of Industrial Technology,

Prof. Kee-sam SHIN, Changwon National University

17:50-19:00 Reception

October 4, 2008 Saturday AM

Prof. Shinichi YODA, Chair, 10:00-11:00

■ **Space Agency Report**

10:00-10:30 Space mission in ISS by the Korean astronaut

Mr. Joo-Hee LEE and Dr. Gi-Hyuk CHOI, Space Science Division, KARI

10:30-11:00 JAXA Space Environment Utilization Program Update

Mr. Tetsuo TANAKA, Space Environment Utilization Center

Prof. Makoto ASASHIMA, Prof. In Ho CHOI, Prof. Shinichi YODA and Prof. Suk Ho Chung, Co-Chairs, 11:00-12:45

11:00-12:30 Discussions on Collaborative Research by All

Summary of the Seminar

12:45 Adjourn