

## 🗲 Year 2012 Clayteam General Meeting /

## The 9th Clayteam Seminar

Date and Time: May 24, 2012(Thu.)13:30-17:00(including Geological Museum Tour

\*Reception Starts 12:30-

May 25,2012(Fri.)10:00-11:15(The Meeting Time-9:45)

Venue: AIST Tsukuba Central1)

[General Meeting / Seminar] Main Conference Room, 2F Auditorium

[5/24Tour]Geological Museum, Science Square TSUKUBA

[Get-Together-Party]Restaurant, 2F Health Center (82 seats)

[5/25Tour](optional)Tsukuba Space Center, Japan Aerospace Exploration Agency (JAXA)

Deadline

Language: Japanese

## 5/24(Thu.)

[Program]

13:00-13:40 Year 2012 Clayteam General Meeting

## 13:40-14:40 The 9th Clayteam Seminar

[Theme]"From Space to Deep Ocean"

[Chair Takeo EBINA, Dr. Team Leader, Advanced Functional Materials Team, Research Center for Compact Chemical System, AIST

[Speaker1]

## "HAYABUSA Project and the Dust Particles from Asteroid Itokawa"

Akio Fujimura

Professor Emeritus, The Graduate University for Advanced Studies [SOKENDAI] and Japan Aerospace Exploration Agency (JAXA)

14:40-14:50 Break

## **14:50-15:20** [Speaker2]

"Fundamental properties of methane hydrate and expectation of utilization

of this compound as a natural resource"

Yoshitaka Yamamoto

Team Leader, Physical Property Analyses Team (Hphys), Methane Hydrate Research Center, AIST

## 15:20-15:30 Break

## 15:30-16:30 [Tour] Geological Museum

Mineral Resources in Japan

•The Usage of Geothermal Energy

•The Great East Japan Earthquake •Making Sample-Flakes of Rocks

### **16:30-17:00** [Tour] Science Square TSUKUBA (look around freely, please)

## 17:30-19:00 [Get-Together Party] Restaurant, 2F Health Center

\*Please be reminded that we can't order anything for outside hours.

#### 19:00 Breakup

## 5/25(Fri.)

## Optional Tour at Space Center Tsukuba, JAXA

9:40 The meeting time

## 10:00-11:15 [Tour] Astronaut Course

After showing an introductory video of the TKSC, a guide will show you the Space Dome And astronaut training area. \*It takes about 1hour and 15 minutes.

11:15 Breakup

## The 9th Clayteam Seminar

## <Short Abstract>

[Speaker1]

## "HAYABUSA Project and the Dust Particles from Asteroid Itokawa" Akio Fujimura

Professor Emeritus, The Graduate University for Advanced Studies[SOKENDAI] and Japan Aerospace Exploration Agency (JAXA)

In June 2010, the space craft HAYABUSA returned from a seven-year journey to bring back to Earth material from the surface of the asteroid Itokawa. This is the first time that a sample has been successfully retrieved from an asteroid, and scientists around the world are showing great interest in what that sample is going to reveal about our solar system. The Itokawa sample consists of more than 1,500 dust particles, although to date only around 250 of the larger particles - those visible with an optical microscope - have been retrieved. More than 60 of these particles were distributed to scientists for initial analysis, and partial results of their studies were featured, for example, in the August 26, 2011 special issue of the American academic journal Science. Here we present what has been revealed so far about Itokawa.

## [Speaker2]

# "Fundamental properties of methane hydrate and expectation of utilization of this compound as a natural resource"

### Yoshitaka Yamamoto

Team Leader, Physical Property Analyses Team (Hphys), Methane Hydrate Research Center, AIST

Gas hydrate is a clathrate compound that is composed of guest gas molecules and host water cages. Recently, it becomes well known that there are huge amount of methane hydrate at the sediment layer under sea bottom as same as land areas of permafrost regions. Since this methane hydrate contains large quantity of methane gas, it is paid much attention as one of the substantial future energy resources. Thus, the investigation to recover it from the sea bottom near Japan (MH 21 project) was launched.

In, this presentation, I would like to introduce fundamental properties of that compound and outline of the production of natural gas from hydrate sediment under sea bottom. I also would like to show you the artificial methane hydrate sample which we synthesized in our Lab.