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http://www.gcoe.geophys.tohoku.ac.jp/index-e.htm

9 March

OPENING

13:30-13:40 Opening Remark by Tsukamoto

INTRODUCTORY TALKS

13:40-14:30 **Andrew Putnis**

The effect of specific background electrolytes on water structure and solute hydration: consequences for crystal nucleation, growth and dissolution

14:30-15:20 **Joseph A. Nuth**

Why equilibrium is rare in the early solar nebula?

15:20-15:50 --- BREAK ---

15:50-16:40 **Katsuo Tsukamoto**

Extremely difficult crystallization in space

16:40-17:30 **Peter Vekilov**

Chiral and achiral mechanisms of regulation of calcite growth by aminoacids

17:30-19:30 --- DINNER ---

SHORT POSTER PRESENTATION & POSTER VIEWING (19:30-21:30)

#1 **Mihoko Maruyama**

Direct Tracking of selective adsorption of chiral molecules on calcite surface

#2 **Ken Nagashima**

Molecular resolution investigation of lysozyme crystal in liquid by frequency-modulation atomic force microscopy

#3 **Toru Yoshino**

Selective interaction between aspartic acids and calcite surface steps

#4 **Jun Nozawa**

The magnetite colloidal crystal in the meteorite formed 4.6 billion years ago

#5 **Koichi Momma**

Observation of fine growth textures developed near Japan twin boundaries in quartz

#6 **Tomoya Yamazaki**

Growth rate measurement of lysozyme crystals in microgravity

#7 **Pan Weichun**

Viscoelasticity in homogeneous protein solutions

#8 **Atul Srivastava**

Exploring the time-dependent concentration gradients using pod-based tomography analysis

#9 **Yuya Ueno**

Observation of self-assembly of DNA tile by AFM

#10 **Kenta Murayama**

Development of schlieren microscope for 3-D analysis of concentration field in crystal growth

#11 **Yuki Araki**

The nucleation of aragonite as induced by synthetic polypeptide –in situ observation by AFM-

#12 **Hitoshi Suzuki**

Growth of Pt clusters from mixture film of Pt-C and dynamics of Pt clusters

#13 **Kenichi Kojima**

Evaluation of the perfection of Lysozyme crystal

#14 **Helen King**

Could adsorption during accretion have provided water for the Earth?

10 March

ASTROMINERALOGY, EXPERIMENTS & OBSERVATIONS

9:00-9:50 **Tomoki Nakamura**

Pieces of chondrules recovered from a short-period comet 81P/Wild2

9:50-10:40 **Frans J.M. Rietmeijer**

The inheritance of non-equilibrium mineral formation

10:40-11:30 **Yuki Kimura**

Formation of nanoparticles in gas phase

11:30-13:30 --- LUNCH ---

ASTROMINERALOGY, THEORIES

13:30-14:20 **Etsuro Yokoyama**

Formation of solidification texture in a melt droplet during rapid cooling using a three dimensional phase field model

14:20-15:10 **Hitoshi Miura**

Extremely non-equilibrium environment for vapor-phase crystallization in Solar nebula

15:10-15:40 --- BREAK ---

ADVANCED OBSERVATION TECHNIQUES

15:40-16:30 **Hirofumi Yamada**

High-resolution imaging in liquids by frequency modulation atomic force microscopy

16:30-17:00 **Yuko Inatomi**

In situ observation for crystallization of undercooled silicate droplet

17:00-17:50 **Liane G. Benning**

Using synchrotron X-ray scattering and diffraction to study mineral nucleation and growth

18:00-20:00 --- DINNER ---

EVENING LECTURES

20:00-20:50 **Juan Manuel García-Ruiz**

Morphogenesis of self-assembled nanocrystalline materials of barium carbonate and silica

20:50-21:20 **Ichiro Sunagawa**

Habit-controlling striated faces

11 March

PATTERN FORMATION & CRYSTALLIZATION

9:00-9:50 **Chaorong Li**

Stress—a possible fundamental reason for the formation of natural patterns

9:50-10:40 **Michihiko Nakamura**

Chemical transport between minerals and fluids enhanced by grain boundary migration: a case of compatible elements

10:40-11:10 --- BREAK ---

11:10-11:40 **Gen Sazaki**

Optical in-situ observation of ice crystal surfaces

11:40-12:30 **Mu Wang**

Self-templating growth of metallic arrays of nano-pearl-chains

13:00- --- LUNCH, EXCURSION, DINNER ---

12 March

CHIRAL & BIOMINERALLIZATION

9:00-9:50	**Makio Uwaha** Chirality conversion during crystallization
9:50-10:40	**Christine Putnis** Mineral replacement reactions and implications for element mobilisation
10:40-11:30	**José Manuel Astilleros** Uptake of toxic-metals by precipitation of metal-bering solid phases on the surface of minerals

CLOSING

11:30-11:45	Closing Remark