The 17th Clayteam Seminar

Megumi Monozukuri　—The latest trend on high-value-added biomass—

Date and Time: May 30, 2014(Fri.) 13:00-16:50 *Reception Starts 12:30-
Venue: Meeting Room 1, Bio-IT Research Building (11th Floor), AIST Tokyo Water Front
2-3-26 Aomi, Koto-ku, Tokyo, 135-0064, Japan
***Language: Japanese**

[Program]

13:00-13:40　Annual General Meeting 2014

13:40-13:55　Break

13:55-14:05　The 17th Clayteam Seminar
【The Opening Remark】

14:05-15:05【Chairperson】Ryo Ishii, AIST
Speaker1　Keynote
"Lignin based Functional Materials for the Creation of New Industries Basics, R&D and Local Resources"
Ph. D Tatsuhiko Yamada (Laboratory Head, Wood Chemistry Laboratory, Department of Biomass Chemistry, FFPRI (Forestry and Forest Products Research Institute) Professor, University of Tsukuba, Cooperative Graduate School System, Faculty of Life and Environmental Sciences)

15:05-15:20　Break

15:20-16:20　Speaker2
"Production and industrial applications of nanofibers obtained from woody biomass."
Dr. Sci.Takashi Endo(Research Team Leader Cellulose Research Team, Biomass Refinery Research Center (BRRC), National Institute of Advanced Industrial Science and Technology (AIST)　AIST Chugoku,)

16:20-16:50【Chairperson】Dr. Hiromichi Hayashi, AIST,
Speaker3
"Creating use of wood resources"
Mr. Shigeru Morishita (Daiken Corporation, Head of Division, Advanced Research Division, Research and Development Center)

16:50　【The Closing Remark】

[Get-Together-Reception]
Venue : Precious Tokyo Bay, Telecom Center (EAST 21F)

Fee : 5,000yen

The 17th Clayteam Seminar

<Short Abstract>

[Speaker1] **"Lignin based Functional Materials for the Creation of New Industries Basics, R&D and Local Resources"**

Ph. D Tatsuhiko Yamada (Laboratory Head, Wood Chemistry Laboratory, Department of Biomass Chemistry, FFPRI (Forestry and Forest Products Research Institute) Professor, University of Tsukuba, Cooperative Graduate School System, Faculty of Life and Environmental Sciences)

Lignin is the most abundant naturally occurring aromatic polymer on earth. However, lignin utilization as material is quite limited compared with that of polysaccharides such as cellulose on paper making industry. Recently, technologies of preparing lignin derivatives are quite improved so that to create lignin based material industries. In this paper our technologies of lignin based materials are introduced to discuss the potential of lignin as industrial raw materials.

[Speaker2] **"Production and industrial applications of nanofibers obtained from woody biomass."**

Dr. Sci.Takashi Endo (Research Team Leader Cellulose Research Team, Biomass Refinery Research Center (BRRC), National Institute of Advanced Industrial Science and Technology (AIST) AIST Chugoku,)

Recently, cellulose nanofiber has attracted much attention due to their applications as fiber reinforced composite and transparent material. Its strength is five times and their specific gravity is one fifth that of steel. Thermal expansion is as low as that of quartz. Width of nanofiber is much thinner than the wavelength of visible light, and transparent materials can be obtained. Our research team has developed the hydrothermal-mechanochemical treatment for the direct production of nanofiber (lignocellulose nanofiber) from woody biomass. The nanofiber / polypropylene composites have also been developed.

[Speaker3] **"Creating use of wood resources"**

Mr. Shigeru Morishita (Daiken Corporation, Head of Division, Advanced Research Division, Research and Development Center)

Daiken corporation started to use wood resources as raw material of plywood & fiberboard ,and has been accumulating technology of how to use wood resources efficiently. In this lecture,①process evolution of fiber board manufacturing,②technology of wood texture improvement (wood plastic combination),③ chemical modified wood product,④Daiken approach to cascading use of wood resources (effective use of wood resources), will be introduced.