

Second
Circular

12th International Conference on Magnetic Fluids

August 1 - 5, 2010 Sendai, Japan



General information ►

We would like to invite you to attend the 12th International conference on Magnetic Fluids, organized by the Magnetic Fluid Association of Japan in collaboration with Tohoku University, and the other Universities in Japan, following up a series of meetings that has been held every three years since the first meeting held in Udine, Italy in 1977.

Topics ►

The main objective of ICMF 12 is to exchange the research finding in the field of magnetic fluids regarding their chemistry, physical and magnetic properties, fluid dynamics, heat and mass transfer, and surface phenomena in the content of academic as well as industry oriented engineering and biomedical applications. Recently, the magnetic fluid research has become even more interdisciplinary and experts from both engineering and biomedical fields will be invited to share their experience, report the results and discuss ways and means to find solutions to some of the unresolved problems.

ICMF 12 shall bring together over 200 specialists from approximately 30 countries worldwide, providing the opportunity to share their knowledge on appropriate scientific level, as well as to discover and define the problems to be explored. The conference program will include lectures given by invited speakers and conference participants, and poster communications involving all aspects of magnetic fluids. The conference language will be English.

Publication ►

All of the peer-reviewed papers to be presented in this conference will be published on either special issue of the JMMM journal or Physics Procedia (e-journal) of the Elsevier Science. Among the papers submitted to this International Conference, we expect to have around 50 invited conference papers (maximum number of pages of each paper is six) published as bind volume in the special issue of the JMMM journal after the conference. The invited papers are to be strictly reviewed by our reviewers and the authors will be requested to submit a 6 page invited paper. While, the rest of the authors will be requested to submit a 3-page contributed papers to be published in the Physics Procedia of the e-journal as Proceedings of ICMF12 published after the conference.

Important Dates ►►

30th Jan. 2010 Deadline for the submission of ABSTRACTS

27th Feb. 2010 Notification of ACCEPTANCE

31st Mar. 2010 Preliminary Program (PLANERY LECTURES, INVITED TALKS and POSTER PRESENTATIONS)

1st May 2010 Deadline for early bird registration (Reduced registration fee)

15th May 2010 Notification of hotel booking from the ICMF Hotel Contingent

21st June 2010 Deadline for full paper submission

Venue ►►

Centennial Hall "Kawauchi Hagi Hall", Tohoku University Sendai, Japan.



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Plenary Lecturers ▶



Prof. Inoue Akihisa

President, Tohoku University,
Title of the talk:
**Metallic glass for the future
technology**

Prof. INOUE Akihisa developed "metallic glass" having excellent mechanical properties, e.g., high tensile strength and large elastic strains, and he is currently a leader of worldwide researchers in materials science. He succeeded for the first time in the world, in developing metallic glass which makes it possible to prepare bulk amorphous alloys without rapid cooling.



Prof. Ohmi Tadahiro

Tohoku University,
Title of the talk:
**Semiconductor Industry
for 21st Century**

Prof. OHMI Tadahiro served as a professor of Electronic Engineering at Faculty of Engineering and now at the University's Future Science and Technology Joint Research Center. He is presently engaged in extensive studies on silicon semiconductors and plate displays. As an advocate of "ultra cleansing technology," he also developed the manufacturing technology for ultra-clean semiconductors and established the production engineering of scientific semiconductors.



Dr. R. E. Rosensweig

Title of the talk:
**Towards Ferrofluids
with Giant Magnetic Moment**

Many striking phenomena in the physical behavior of magnetic fluids are well explained by fluid dynamics and thermodynamics, which are based on the continuum mechanics via microscopic description. The study is recognized as "Ferrohydrodynamics", that is attributed to Dr. R. E. Rosensweig. His lecture includes as important thought of magnetic particles with large magnetic moment in the dynamics system of magnetic fluids.



Prof. Jean-François Joanny

**Physical chemistry Curie
- Institute Curie, Univ. of Paris 6**
Title of the talk:
Proteins in Cell Membrane

Prof. Jean-François Joanny leads a research group at the Institut Curie that focuses on using physics to better understand the fundamental functions of cell life. His work includes the study of membranes, molecular motors, cell motility and cell adhesion. During his lecture, he will illustrate the physics approaches in their research.



Prof. Kobayashi Takeshi

**College of Bioscience and
Biotechnology,
Chubu University, Japan**
Title of the talk:
**Trend of Cancer Hyperthermia
using Magnetic Nanoparticles**

Prof. KOBAYASHI Takeshi, has been working on Intracellular hyperthermia using magnetic nanoparticles. In his group, they have Magnetic Cationic Liposome (MCL), which when injected accumulates locally into the tumor region by electrostatic interaction with the tumor cells. MCL acts as heat source in the local tumor region to necrose tumor and produce heat shock proteins, which induces antitumor immunity. Clinical trial for intracellular hyperthermia is scheduled.

Registration Fees ▶▶

Description of Registration	Registration Fees (Before 01 May,2010)
Regular	45,000 yen
Student	25,000 yen
Accompanying person	25,000 yen

Contacts

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For details:<http://www.senkyo.co.jp/icmf12/index.html>