2nd Forum of Ongoing Establishment of Center for Advanced Materials Research and International Collaboration (CAMRIC-FORUM2), University of TOYAMA (12<sup>th</sup> Light Metals International Workshop By JILM)

TOYAMA DAIICHI HOTEL Toyama, Japan October 13-14, 2016



The Second forum of cerebration for Establishment of Center for Advanced Materials Research and International Collaboration, Faculty of Engineering, University of Toyama will be held at TOYAMA DAIICHI HOTEL on <u>13-14 October</u>, <u>2016</u>. This forum will be focused on the future innovation for industrial products of light weight materials, especially aluminum and magnesium alloys, and other materials including energy and hybrid composites for next generation.

## Programme

Admission Free

Morning session, 13 October(Thu)

- 09:00am Opening address; Chair, Prof. Kenji Matsuda, University of Toyama.
  - President of University of Toyama, Prof. Shunro Endo
- Graduate School of Science and Engineering for Education, Dean, Prof. Yuukou Horita
- Department Chair of Functional Materials Engineering, Prof. Katsuhiko Nishimura

[Seeds from academia I.] Chair: Prof. K. Nishimura, University of Toyama. 09:10am,Introduction of Center for Advanced Materials Research and International Collaboration, Faculty of Engineering, Chair of CAMRIC Forum, University of Toyama, Prof. K. Matsuda,

- 09:20am, "Atomic Control of Precipitate Nucleation in Aluminum Alloys and Are Low Density HEA Possible?"
  - Prof. G. J. Shiflet, University of Virginia (U.S.A.)
- 09:50am, "Nanocluster Assisted Microstructure in Al-Zn-Mg Alloys with Microalloying Elements", Prof. Tatsuo SATO, Prof. Emeritus, Tokyo Inst. Tech (Japan)
- 10:20am, "Precipitates in age hardenable Al alloys studied by (S)TEM techniques",
- Prof. Randi Holmestad, Norwegian University of Science and Technology (Norway) 10:50am, "Materials Research in Thai Universities and Pathways to the International Collaboration",
- Assoc. Prof. Chaiyasit Banjongprasert, Chiang-Mai University, (Thailand) 11:20am, "Possibility of strengthening by ultrafinegrains (Tentative)",
- Prof. Malgorzata Lewandowska, Warsaw University of Science and Technology(Poland) 11:50am, "Study of ultra fine grained Metals(Tentative)", Prof. Tibor Kvackaj, Technical University of Kosice, (Slovakia) 12:20 break

Luncheon seminar about analytical instruments by FEI Japan, (For 50 peoples) "Themis Z: Performance and results from a new Cs-corrected microscope", Dr. Alex Bright

Afternoon session, 13 October (Thu)
[Seeds from academia II.] Chair: Prof. Atsushi Saiki, University of Toyama.
13:20pm, "Hydrogen sulfide corrosion of X80 pipeline steel and its welded joint", Prof. Yong Zou, Shandong University, (China)
13:50pm, "Characterization and modelling of microstructure and properties during thermo-mechanical processing of aluminium
alloys", Prof. Knut Marthinsen, Norwegian University of Science and Technology (Norway)
14:20pm, "Reflected and Transmitted Mode of the Scanning Low Energy Electron Microscope",
Dr. I. Müllerová, Director of Institute of Scientific Instruments of the Czech Academy of Sciences (Czech Republic) [Seeds from academia III.] Chair: Prof. Kenji Matsuda, University of Toyama.
14:50pm, "Properties of Ti-46AI-8Nb alloy with boron and carbon addition under cyclic oxidation conditions",
Prof. Kazimierz Przybylski, AGH University of Science and Technology, (Poland)
15:20pm, "University - Industry partnership: Integrating dynamic deformation observation into time-resolved three-demiensional
transmission electron microscopy", Assoc. Prof. Mitsuhiro Murayama, Virginia Tech., (U.S.A.)
15:50pm, "Precipitation of globular microstructure in Al alloy 7075 using SPD and in steels H18 and modified Hadfield steels for
semi solid processing with the use of boron addition", Prof. Jan M. Dutkiewicz, Polish academy of Science
16:20pm, closing
17:00 Banquet at the same hotel (On site Banquet fee: JPY 8,000)
[Presentations on 14 Oct. are in Japanese. There is simultaneous translation to English.]
Morning session on 14 October (Fri) [Needs from Industries I.] Chair: Prof. Seiji Saikawa, University of Toyama.
09:00am, Speech from guest, "Present state of Japanese aluminum industries and our hope for future collaboration between
industries and academia", (Tentative), Dr. Motohiro NABAE, Director, JAPAN ALUMINIUM ASSOCIATION(JAA), (Japan)
09:30am, "Research activities in high temperature materials and their processes for aero engines"
Dr. Akihiro Sato, Senior Researcher, Materials Department, Research Laboratory, IHI Corporation (Japan)
10:20am, "Thixomolding, Magnesium Injection Molding, its Process and the Application for Automobile",
Mr. Toshio Toyoshima, Assistant Manager (MG), MG Design Group, Injection Molding Machinery Engineering Dept.,
Hiroshima Plant, the Japan Steel Works, LTD. (Japan)
11:10am, "Light Weight Technology for Motorcycle",
Mr.Toru KITSUNAI, General Manager, Engine Unit Engineering Division, YAMAHA MORTOR CO., LTD. (Japan)
12:00pm, break
[Needs from Industries II.], Chair: Prof. Satoshi Sunada, University of Toyama.
13:00:pm, "Introduction of the research and development cases of the automotive materials technology at Mazda Motor
Corporation", Mr. Nobuo Sakate, Research Manager, Structural Materials Research,
Advanced Materials Research Field, Technical Research Center, Mazda Motor Corporation. (Japan)
13:50pm, "Alloy/product developments with university network in Hydro Aluminium",
Dr. Takeshi Saito <sup>1</sup> , Dr.Scott Rogers <sup>2</sup> and Dr. Trond Furu <sup>3</sup> , <sup>1</sup> Research and Technology Development (RTD), Sunndalsøra, Norway,
<sup>2</sup> Customer Technical Support (CTS), Singapore, Corporate Technology Office, Oslo, Norway
14:40pm, "Approaching for development of aluminum material in automobile parts and efforts toward academia-industry cooperation", Mr. Tomoo Yoshida, Group Manager, Research & Development Center, Material Development Group,
Aisin Keikinzoku, Co. Ltd., (Japan)
15:30pm, "History and future trend of aluminum alloys for airplanes in Japan",
Dr. Hideo Yoshida, Adviser, Research & Development Division, UACJ Corporation(Japan)
16:20pm, break
[Seeds from academia IV (by young scientists) ], Chair: Prof. Toshiya Shibayanagi, University of Toyama.
16:40pm, "Advance powder metallurgy forming technologies ",
Assoc. Prof. Robert Bidulsky, Technical University of Kosice, Slovakia
17:10pm, "Green Cementing Materials for Civil Engineering", Assoc. Prof. Kedsarin Pimraksa, Chiang Mai University, (Thailand)
17:40pm, "High entropy materials(Tentative)", Dr. Miroslaw Stygar, AGH University of Science and Technology (Poland) 13:10pm, "Hardness and Microstructure Evolution in AA 6016 and 6960 Alloys. A TEM and APT Study",
Dr. Calin D. Marioara, SINTEF(Norway)
18:40 pm, Closing address, Department. Chair, Prof. Katsuhiko Nishimura, University of Toyama.
Important dates; Registration. 11 October, 2016.
Could you please send e-mail for your Registration to Prof. K. Matsuda: matsuda@eng.u-toyama.ac.jp Sponsored by University of Toyama, Faculty of Engineering, University of Toyama, Japan. Support by: Janan Institute of Light Metals(JLM), Hokuriku branch, Japan Inst. Light Metals, Hokuriku-Shinetsu branch, Japan Inst. Metals
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