



GSAM2016 Workshop Program



July 28 (Thursday) Welcome Reception

17:00 - 19:00

at Dai-hakata Bldg. Room 1107, <http://irc-gsam.kyushu-u.ac.jp/gsam/gsam2016/site.html>

July 29 (Friday) Opening Words

9:00 - 9:15

Zenji Horita

Kyushu University, Japan

Welcome words and general instruction
Introduction of IRC-GSAM Center

July 29 (Friday) Session (1) Chairperson: Zenji Horita (Kyushu University, Japan)

9:15 - 9:55

Etsuo Akiba

Kyushu University, Japan

<Keynote>
Hydrogen storage materials: state-of-the-art and future prospect

9:55 - 10:35

Daniel Fruchart

Institut Néel, CNRS, France

<Keynote>
Mg and Mg-based alloys processed by SPD techniques to achieve rapid hydrogen reactivity

10:35 - 11:00

<Coffee Break>

July 29 (Friday) Session (2) Chairperson: Etsuo Akiba (Kyushu University, Japan)

11:00 - 11:40

Yuri Estrin

Monash University, Australia

<Keynote>
Enhancement of the hydrogenation kinetics of Mg alloys by severe plastic deformation

11:40 - 12:20

Kaveh Edalati

Kyushu University, Japan

Impact of high-pressure torsion on hydrogen storage materials

12:20 - 13:00

Koji Tanaka

National Institute of Advanced Industrial Science and Technology, Japan

Formation of Mg₂Cu at low temperature in Mg/Cu super-laminate composites made by accumulative roll bonding

13:00 - 14:30

Workshop Photo (1) <Lunch>

July 29 (Friday) Session (3) Chairperson: Daniel Fruchart (Institut Néel, CNRS, France)			
14:30 - 15:10	Jacques Huot	Université du Québec à Trois-Rivières, Canada	<Keynote> Cold rolling as a way to improve hydrogenation properties of metal hydrides
15:10 - 15:40	Hadi Razavi-Khosroshahi	Nagoya Institute of Technology, Japan	Photocatalytic hydrogen generation under visible light on nanostructured TiO ₂ -II stabilized by high-pressure torsion
15:40 - 15:55	Fan Zhang	Kyushu University, Japan	Hydrogen generation behavior of HPT-processed aluminum alloys in water
15:55 - 16:20	<Coffee Break>		
July 29 (Friday) Session (4) Chairperson: Jacques Huot (Université du Québec à Trois-Rivières, Canada)			
16:20 - 17:00	Thierry Grosdidier	Université de Lorraine, France	<Keynote> Hydrogen storage properties of high-pressure-torsion compacted micro and ultrafine Mg powders
17:00 - 17:15	Marc Novelli	Université de Lorraine, France	On the effectiveness of surface severe plastic deformation by ultrasonic shot peening at cryogenic temperature
17:15 - 17:30	Takahiro Masuda	Kyushu University, Japan	Extra-strengthening of A2024 alloy by high-pressure sliding and aging treatment
July 30 (Saturday) Session (5) Chairperson: Yuri Estrin (Monash University, Australia)			
9:00 - 9:40	Gerhard Krexner	University of Vienna, Austria	<Keynote> Long-term hydrogen storage in Mg and ZK60 after severe plastic deformation
9:40 - 10:10	Yoji Mine	Kumamoto University, Japan	Effect of ultra grain refinement on hydrogen-induced quasi-cleavage of type 304 stainless steel
10:10 - 10:40	Hideaki Iwaoka	Yokohama National University, Japan	Hydrogen diffusion in ultrafine-grained FCC-Pd and BCC-Fe

10:40 - 11:10	<Coffee Break>		
July 30 (Saturday) Session (6) Chairperson: Thierry Grosdidier (Université de Lorraine, France)			
11:10 - 11:50	Ruslan Z. Valiev	Ufa State Aviation Technical University, Russia	<Keynote> Advanced conductors from nanostructured Al and Cu alloys with enhanced strength and electrical conductivity
11:50 - 12:30	Masaki Mito	Kyushu Institute of Technology, Japan	Contactless measurement of electrical conductivity for bulk nanostructured silver prepared by high-pressure torsion
12:30 - 13:00	Jorge M. Cubero-Sesin	Instituto Tecnológico de Costa Rica, Costa Rica	Simultaneous increase in strength and electrical conductivity of Al-Fe alloys by high-pressure torsion and aging
13:00 - 14:30	Workshop Photo (2) <Lunch>		
July 30 (Saturday) Session (7) Chairperson: Ruslan Z. Valiev (Ufa State Aviation Technical University, Russia)			
14:30 - 15:10	Terukazu Nishizaki	Kyushu Sangyo University, Japan	Magnetic property in bulk nanostructured superconductors
15:10 - 15:50	Andrea Bachmaier	Austrian Academy of Sciences, Austria	Tailoring the mechanical and magnetic properties of nanocrystalline materials by decomposition of metastable solid solutions
15:50 - 16:05	Bumsoo Chon	Kyushu University, Japan	Investigation of electrical resistivities of n-type Si with different doping rates after processing by high-pressure torsion
16:05 - 16:30	<Coffee Break>		
July 30 (Saturday) Session (8) Chairperson: Gerhard Krexner (University of Vienna, Austria)			
16:30 - 17:10	Xinkun Zhu	Kunming University of Science and Technology, China	<Invited> The microstructure and mechanical properties of Cu and Mg alloys with a gradient structure processed by surface mechanical attrition treatment
17:10 - 17:25	Jae-Kyung Han	Hanyang University, South Korea	Synthesis of a metal matrix nanocomposite through high-pressure torsion
17:25 - 17:40	Yoichi Takizawa	Kyushu University, Japan	Superplastic behavior of Inconel 718 processed by high-pressure sliding

July 30 (Saturday) Banquet at Kisoji (Tenjin Diamond Bldg. B1F) http://www.kisoji.co.jp/kisoji/english/location.html#fukuoka 18:30 - 20:30			
July 31 (Sunday) Session (9) Chairperson: Andrea Bachmaier (Austrian Academy of Sciences, Austria)			
9:00 - 9:30	Yoshifumi Ikoma	Kyushu University, Japan	HPT processing of germanium at cryogenic temperature
9:30 - 10:00	Makoto Arita	Kyushu University, Japan	Grain refinement and phase transformation of zinc oxide processed by high-pressure torsion
10:00 - 10:25	<Coffee Break>		
July 31 (Sunday) Session (10) Chairperson: Xinkun Zhu (Kunming University of Science and Technology, China)			
10:25 - 10:45	Muhammad Rifai	Doshisha University, Japan	Microstructure and corrosion properties of ultrafine-grained copper by simple shear extrusion
10:45 - 11:15	Zenji Horita	Kyushu University, Japan	Enhanced atomic diffusion by severe plastic deformation
July 31 (Sunday) Session (11) Chairpersons: Yuri Estrin and Ruslan Z. Valiev			
11:15 - 12:55	Comments from Speakers and General Discussion		
12:55 - 13:00	Closing Remarks		
14:00 - 17:00	Lab Tour		