

# The 5th Japan-Korea Workshop for Young Foundry Engineers Program

**Sep. 7 (Sat) AM**

Exchanging [B8] for [B9] on 28th Aug.

	Oral session 1 [Muroran-IT C203]	Oral session 2 [Muroran-IT C204]	Oral session 3 [Muroran-IT C205]	Poster session [Muroran-IT C206]	Opening session [Muroran-IT A304]
9:00~9:15	/	/	/	/	Opening ceremony
9:15~10:15					Keynote speech 1 Muroran Institute of Technology Prof. Kazumichi Simizu
	Chair: Tohru Nobuki	Chair: Ken'ichi Yano	Chair: Kaoru Yamamoto		Keynote speech 2 Korea Institute of Industrial Technology Dr. Lee Sang Mok
10:15~	Yong-Hyun Baek <small>GyeongSang National University</small> [A1] Effects of addition element of Mo on the Mechanical properties of HiSiMo Ductile Cast Iron	Kyuchul Hwang <small>Korea Institute of Industrial Technology</small> [B1] Microstructure and mechanical properties of A356 alloy billet solidified by progressively controlled casting	Tong Wang <small>Nagasaki University</small> [C1] Wear resistance of alumina particulate and whisker reinforced metal matrix composite	/	/
10:35~	Kentaro Yamamoto <small>Muroran Institute of Technology</small> [A2] Effect of Heat Treatment on Erosive Wear Behaviour of High Chromium Cast Irons	Kyeong -Wook Min <small>Korea University of Technology and Education</small> [B2] Effect of water flow rate on the cooling of a die casting core	Ho Hun Lee <small>Korea Aerospace University</small> [C2] Effects of casting conditions on the microstructure and tensile properties of Al-Mg-Si/Al hybrid alloy prepared by duo-casting		
10:55~	Kenta Kuroki <small>Toyama University</small> [A3] The effect of Sb on Spheroidal graphite in ductile cast iron	Toru Maruyama <small>Kansai University</small> [B3] Effect of chemical composition on spheroidizing of sulfide in lead free bronze with dispersed sulfide particles	Young Sik Song <small>Korea Institute of Industrial Technology</small> [C3] RF Sputtering of PTFE Target and Metal Containing PTFE Films by Simultaneous DC Metal Sputtering with Substrate Rotation		
11:20~13:20	<b>Lunch meeting</b>			Posters should be put on the certain place before afternoon session	/

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	Oral session 1 [Muroran-IT C203]	Oral session 2 [Muroran-IT C204]	Oral session 3 [Muroran-IT C205]	Poster session [Muroran-IT C206]	Opening session [Muroran-IT A304]
	Chair: Chaeho Lim	Chair: Ikuzo Goto	Chair: Jae-Ik Cho		
13:30~	Chikara Hamaguchi Kyushu Institute of Technology [A4] Microstructure and Heat Transfer Simulation of SGI Press Forming Dies by Induction Hardening	Hyunkyuu Lim Korea Institute of Industrial Technology [B4] Development of Cast ECO-Mg Alloys for Aircraft Components	Ryosuke Tasaki Toyohashi University of Technology [E1] Greensand Press Casting Process with Predictive Pressure Controller for Pressurized Defect Prevention		
13:50~	Si-Young KWAK Korea Institute of Industrial Technology [F1] Prediction of Impact Fracture Load of A356 Alloy with Shrinkage Defect using Plastic Work Criterion	Naoya Tsuruoka Kyushu Institute of Technology [B5] Formation of Spheroidal Graphite in Nickel Alloy	In-Sung Cho Korea Institute of Industrial Technology [E2] Phantoms design for defect analysis of the castings of industrial computed tomography		
14:10~	Kenta Kusumoto Muroran Institute of Technology [A5] Characteristics of Erosive Wear with of V-Cr Cast Iron	Jeong-Min Kim Hanbat National University [B6] Solidification and casting characteristics of high conductivity aluminum alloys	Kyoungmook Lim Korea Institute of Industrial Technology [B11] Effects of Si addition on microstructure and magnetic properties of permalloy strips		
14:30~15:30				<b>Core time</b>	
	Chair: Xinba Yaer	Chair: Ryosuke Tasaki	Chair: Si-Young KWAK		
15:30~	Noritaka Horikawa Asahikawa Natinnal College of Technology [A6] Changes in Eddy Current Signal by Difference of Ductile Cast Iron Matrix and Surface Roughness	Jae-Ik Cho Korea Institute of Industrial Technology [B7] The Effect of Pressure on Feeding and Porosity Formation of A356 Alloy	Ken'ichi Kanazawa Mie University [F2] Nonparametric Optimum Shape Design of Sprue for Die Casting Using CFD Simulation		
15:50~	Takafumi Funabiki Muroran Institute of Technology [A7] Fatigue Strength of Spheroidal Vanadium Carbides Cast Iron	<b>Young-Ok Yoon</b> <b>Korea Institute of Industrial Technology</b> <b>[B9] Effect of Al<sub>2</sub>Ca on Oxidation Behavior of Al-Mg Alloys with High Mg Content</b>	Chaeho Lim Korea Institute of Industrial Technology [F3] The study about the pre-/post-processing system for casting simulation (flow, solidification and thermal stress)		
	Chair: In-Sung Cho	Chair: Toru Maruyama			
16:20~	Eun-Seok Jang Korea University of Technology and Education [A8] Directionally Solidified Microstructure of a Duplex 2507 Stainless Steel	<b>Kyeong-Hwan Choe</b> <b>Korea Institute of Industrial Technology</b> <b>[B8] Solidification behavior of Al<sub>2</sub>Ca added AC4C alloy</b>			
16:40~	Xinba Yaer Muroran Institute of Technology [A9] Abrasive wear properties of high manganese spheroidal carbides cast iron with different carbon content	Young-Ki Lee Sungkyunkwan University [B10] Effect of Solute Contents on Grain Refinement of A356 and A7075 Al Alloys Refined by Ti Addition			

## Sep. 8 (Sun) AM

	Oral session 1 [Muroran-IT C203]	Oral session 2 [Muroran-IT C204]	Oral session 3 [Muroran-IT C205]	Poster session 1 [Muroran-IT C206]	Closing session [Muroran-IT A304]
	Chair: Noritaka Horikawa	Chair: Young-Ok Yoon			
9:30~	Tohru Nobuki Kinki University [A10] Impact Characteristics of Copper Alloyed Ductile Cast Irons	Kee-Joo Jung Sungkyunkwan University [D1] Grain Refinement of AZ31 and AZ91 Mg Alloys by Nucleation Ultrasonic Melt Treatment			
9:50~	Qiang Wang Muroran Institute of Technology [A11] Effect of Silicon Content on Impact Toughness of Thin-walled Ductile Cast Iron	Jong-Sik Shin Korea University of Technology and Education [B12] Development of a new manufacturing technology of pure Si powders			
10:10~		Reita Murakami Kyushu University [E3] Control of initial solidification structure of polycrystalline silicon ingot by $\alpha$ -Si <sub>3</sub> N <sub>4</sub> and $\beta$ -Si <sub>3</sub> N <sub>4</sub> mold lubricants			
10:30~10:50	<b>Coffee break</b>				
10:50~11:30					<b>Closing ceremony</b>

# Poster session Program

[P19] canceled on 28th Aug.

Number	Name	Affiliation	Title
P1	Hiroya Hara	Muroran Institute of Technology	Influence of cobalt and niobium to the abrasive wear characteristics of multi-component cast iron
P2	Ryosuke Sato	Muroran Institute of Technology	Abrasive wear characteristics of V-Cr cast steel
P3	Takahiro Kitagawa	University of Toyama	Observation of the internal structure of spheroidal graphite in ductile cast iron by FIB method
P4	Koji Orime	Kinki University	Influence of strontium addition on graphite spheroidizing of cast iron
P5	Kazuhiro Yamanaka	Kinki University	Influence of Cu and Sn on Graphite Spheroidizing of Cast Irons
P6	Yusuke Kawasaki	Kinki University	Influence of alloying elements on fatigue properties of nitrided ductile cast irons
P7	Ryuichiro Mori, Kaoru Yamamoto	Kurume National College of Technology	Grain refinement of cast stainless steel by vibrating mold technique
P8	Takaki Mashita	Asahikawa National College of Technology	Relationship between Microstructures and Cooling Rate of Thin Wall Ductile Cast Iron
P9	Yuuki Matsunaga	Kyushu Institute of Technology	Structure and Property of Aluminum Alloy Obtained by Forge Casting
P10	Goushi Aoshima	University of Toyama	Effect of solidification structures on precipitated distribution of Al-10%Si-0.3%Mg alloy produced by sand mold casting
P11	Jin-Pyeong Kim	Korea Automotive Technology Institute	High Temperature Mechanical Properties of New Heat Resistant Aluminum Alloy
P12	Cheol-Woo Kim	Korea Institute of Industrial Technology	Enhancement of Feeding behavior of A356 Alloy by Applying Pressure at the Riser
P13	Je -Beom Jeon	Korea University of Technology and Education	Growth Behavior of Primary Silicon in Al-30wt%Si Alloy
P14	Ken Uchikura	Kinki University	Properties of short potassium titanate fiber reinforced aluminum alloy composites
P15	Naoya Ide	Kyushu Institute of Technology	Effect of Annealing on Properties of Diamond Like Carbon Films Fabricated by Plasma Enhanced Chemical Vapor Deposition
P16	Tatsuo Hanafusa	Hiroshima Prefectural Technology Research Institute	Making of Surface Hardened Layer on Castig Iron
P17	Tohru Nobuki	Kinki University	Mechanical properties of alloy tool steel castings
P18	Shuichi Tsuzuki	Sintokogio	Development of Aeration Sand Filling Flaskless Molding Machine "FDNX"
P19	Young Jun Lee	Research Institute of Industrial Science & Technology	Continuous Casting of Aluminum Clad Ingot Using Linear Electromagnetic Stirrer
P20	Takaaki Tsuji	University of Yamanashi	Accuracy Improvement of Pouring Control by Parameter Identification in Tilting-Iadle-type Automatic Pouring Machine
P21	Ikuzo Goto	Akita University	Directional Solidification Characteristics in Aluminum Casting with Plate-fins Added for Heat Sink
P22	Ryota Shibuya	Toyohashi University of Technology	Estimation of Pouring Stream-tube Trajectory and Tracking Control between Ladle and Mold in Self-Transfer-Type Automatic Pouring Robot
P23	Ryo Kawauchi	Mie University	Control Input Optimization for Molten Metal Pouring Process
P24	Young-Chan Kim, SE-Weon Choi	Korea Institute of Industrial Technology	Quantification for shrinkage porosity of die-casting rotor by design of experiments