

# 2015 JTSS Fall Meeting

12-13 November, 2015(Hall of Promotion of Machine Industry,Tokyo,JAPAN)

## Technical Program

12, November, 2015

9:30-9:40		Opening Remarks		Chair		Takayuki KUWASHIMA	
9:40-11:00		Session 1 : Cold Spray / Warm Spray		Chair		Takayuki KUWASHIMA	
101	Gas-dynamic Estimation of Mixing Stagnation Temperature of Cold Spray Process	Kagoshima University # # AIST		○	Hiroshi KATANODA Keita ITAGAKI Akira FUKUDA Hiromitsu MORITA		
102	A Study on Void Formation Mechanism of Cold Spray Copper Coatings after the Heat Treatment	NHK Spring Co., Ltd.		○	Yuichiro YAMAUCHI		
103	Optimization of the Shape of Rectangular Cross-Section Nozzle in High-Pressure Cold Spray (Influence of Nozzle Length of Each Section)	Graduate School, Shinshu Univ Shinshu Univ # #		○	Shinji ARAI Kazuhiko SAKAKI Tatsuyuki TAGAMI Takashi TSUCHIDA		
104	Warm Spraying of High Strength Ni-Al-Bronze for Cavitation Protection	NIMS Humburg University # NIMS Kagoshima University Humburg University #		○	Seiji KURODA Sebastian KREBS Simon FREDE Hiroshi ARAKI Hiroshi KATANODA Frank GAERTNER Thomas KLASSEN		
--- Break (11:00-11:10) ---							
11:10-12:10		Session 2 : Corrosion Protection		Chair		Yasutaka ANDO	
105	Effect of Additional Elements for Sprayed Anticorrosive Aluminum Coating	Technology Research Institute of Osaka Prefecture Osaka Prefecture University Graduate School # # # Kanmeta Engineering Co., Ltd.		○	Shinichiro ADACHI  Tomokazu HIGUCHI Hiroyuki INOUE Tokuteru UESUGI Kenji HIGASHI Syuichi UENO		
106	A Long Term Exposure Testing of Thermal-Sprayed Al, Zn and Zn-Al Coatings in Marine Environment	National Maritime Research Institute Tokyo Metropolitan University National Institute for Materials Science		○	Susumu UEMATSU Satoru TAKAHASHI Seiji KURODA		
107	Corrosion Resistance of Zn-Ti pseudo alloy spraying.	Graduate School of Kansai University Kansai University Kurimoto, LTD #		○	Nobusato KISHI Toru MARUYAMA Takahiro SAKAI Yoshinobu YAMADA		
--- Lunch Break (12:10-13:10) ---							
13:10-14:30		Special Lecture I		Chair		Kunihiko WADA	
		Applications and Challenges of Thermal Spray Technology for Aero Engine Industry		IHI Corporation		Nobuyoshi MORI	
		Applications and Challenges of the Thermal Spraying for Glass-Ceramics Industry		Research Center, Asahi Glass Co., Ltd		Kazuo HAMASHIMA	
--- Break (14:30-14:40) ---							
14:40-15:20		Presentation by Exhibitor		Chair		Kazuya FUJIMORI	
--- Break (15:20-15:30) ---							
15:30-17:10		Session 3: New Process		Chair		Masato SUZUKI	
108	Dielectric Strength of SiC Film Fabricated by Supersonic Free-Jet PVD	Graduate School of Engineering and Science, Shibaura Institute of Technology Shibaura Institute of Technology Nippon Fusso Co., Ltd		○	Kaito TAKAGI Atsushi YUMOTO Naoki FUKUMURA		
109	Soft-magnetic Properties of Iron-base Alloy Films Deposited with Supersonic Free-Jet PVD	Graduate School of Engineering and Science, Shibaura Institute of Technology Shibaura Institute of Technology		○	Masahiro YAMAMOTO Atsushi YUMOTO		
110	Visualization of the Effects of Particle Impact Angle in the Aerosol Deposition Method	Toyohashi University of technology # #		○	Junichi MIYASHITA Masahiro FUKUMOTO Motohiro YAMADA		
111	Fabrication of Electrically Conductive Film on Polymer Base Material by Low-power Microwave Atmospheric Pressure Plasma Spraying Method	Toyohashi University of technology # Mitsui Kinzoku ACT Corporation Toyohashi University of technology		○	Keisuke YAMADA Toshiaki YASUI Mayuko TSURUTA Masahiro FUKUMOTO		
112	Influence of Material Feeding Behavior on Suspension Plasma Spraying	Oerlikon Metco # # #		○	Kazuya FUJIMORI Toshiyuki YAMANE Junya KITAMURA Tetsuyoshi WADA		
--- Break (17:10-17:20) ---							
17:20-17:50		Introduction and Report of Support Program for Young Member		Chair		Takayuki KUWASHIMA	
18:10-19:30		Banquet		Chair		Masaya NAGAI	

Poster and exhibition session & photo contest

13, November, 2015

9:00-10:20 Session 4 : New Material		Chair		Shingo HIROSE
201	Amorphous Thermal Spray Coating with Hard Materials Exhibiting Cleavage Fracture	Nakayama Amorphous Yoshikawa Kogyo The university of Tokyo	○	Toshiharu MORIMOTO Takashi KUMAI Jun YANAGIMOTO
202	Feasibility Study of Metallic Coatings on High Thermal Conductive Graphite Using Low-Temperature Plasma Spray	Tohoku Univ. Startack Co., Ltd, Thermo Graphitics Co., Ltd Tohoku Univ #	○	Kenta HIRAYAMA Akira NARITA Katsuhiko CHIKUBA Yuji ICHIKAWA Kazuhiro OGAWA
203	Fabrication of Y <sub>2</sub> O <sub>3</sub> Coating on C-FRP	Toyohashi University of Technology graduate student Toyohashi University of Technology #	○	Hiroyuki TOKUYAMA Amirthan GANESAN Motohiro YAMADA Masahiro FUKUMOTO
204	Microstructure and Mechanical Properties of Warm Spray Titanium Coating on CFRP Substrate	Toyohashi University of technology # # #	○	Takuma OKADA Masahiro FUKUMOTO Motohiro YAMADA Ganesan AMIRTHAN
--- Break (10:20-10:30) ---				
10:30-11:30 Session 5 : Microstructures and Properties I		Chair		Atsushi YUMOTO
205	Microstructural Evolution during Fusing and CCT Diagram of Ni-based Self-fluxing Alloy	Graduate Student, Kyushu Institute of Technology Kyushu Institute of Technology #	○	Kazuki YOSHIDA Tatsuya TOKUNAGA Hidenori ERA
206	Influence of Phosphorus on the Solidification Temperature of Nickel-base Self-fluxing Alloy	Kansai University # Nomura Plating Co, Ltd #	○	Masaaki INAZUMI Toru MARUYAMA Keizi NAKAI Yasushi KITAMURA
207	Influence of Spray Gun Nozzle Geometry on Mechanical Properties of WC-10%Co-4%Cr Coatings Prepared by High Velocity Air Fuel Spraying (Influence of Divergent Length)	Graduate School, Shinshu Univ Shinshu University Graduate School, Shinshu Univ Shinshu University Fujimi Incorporated	○	Katsura OZAKI Kazuhiko SAKAKI Naoki HANAOKA Daiki HARADA Kazuto SATO
--- Lunch Break (11:30-12:30) ---				
12:30-13:20	<b>Special Lecture II</b> Application of the Spray Coating Technology to an Automobile Engine	NISSAN Motor Co.,Ltd. #	Chair	Kazuhiko SAKAKI Hidenobu MATSUYAMA Eiji SHIOTANI
--- Break (13:20-13:30) ---				
13:30-15:10 Session 6 : Deposition Mechanism		Chair		Makoto WATANABE
208	The Effect of Wetting between Molten Particle and Substrate on Plasm Sprayed Particle Flattening Behavior	Toyohashi University of technology #	○	Natsuki MAEDA Wei Boyi Masahiro FUKUMOTO
209	In situ Observation of Arc Spraying Phenomenon using High Speed Camera	Tokyo Metropolitan University National Maritime Research Institute Photron Ltd. #	○	Satoru TAKAHASHI Susumu UEMATSU Takashi TANAKA Kosaku SAITO
210	Improvement of Precision of a System Simultaneously Measuring Velocities and Temperatures of Spray Particles	National Institute of Technology, Oshima College Yamaguchi University Chugoku Electric Power #	○	Hideki SASAOKA Satoshi SAKIYAMA Sakae IMADA Makoto TANAKA
211	Development of Particle Measurement System in Thermal Spray Process	Plazwire Co. Ltd # Kyushu University	○	Masafumi YAMASAKI Yasuyuki KAWAGUCHI Katsunori MURAOKA Yukihiko YAMAGATA
212	Prototype Learn Support System with Haptic Sense for Obtaining Hand Thermal Spraying Techniques	AIST #	○	Shingo HIROSE Yukitoshi EZUKA
--- Break (15:10-15:20) ---				
15:20-16:20 Session 7 : Properties II		Chair		Yasunari ISHIKAWA
213	Examination of Corrosion Rresistance of the Alumina Spray Deposit Characteristic formed in an Inside Diameter Part	Shinco Metalicon Co.,Ltd # # # #	○	Tadashi OSAKO Motoyuki KONDO Yasushi NOMURA Mitsuru YOSHIDA Yutaka TATEISHI
214	High temperature oxidation properties and mass changes of CoNiCrAlY alloy powders	Tocalo Co., Ltd. # Tokyo University of Science	○	Tatsuo SUIDZU Syun NISHIZAKO Masayuki ARAI
215	Porosity and Thermal Xonductivity of Plasma Aprayed Zirconia Coatings	Tokyo Metropolitan University # National Institute of Advanced Industrial Science and Technology Tocalo Co., Ltd. # Nippon Steel & Sumikin Technology Co., Ltd.	○	Satoru TAKAHASHI Minako YOKOTA Megumi AKOSHIMA Akihiro KANNO Tatsuo SUIDZU Takashi TANAKA
16:20-16:30 Best Presentation Awarding and Closing Remarks				

Poster and exhibition session