

# 2013 Spring National Meeting of Japan Thermal Spray Society

20-21 June, 2013 (Wel-tobata, Kitakyushu, Fukuoka, JAPAN)

## Technical Program

20, June, 2013

<b>10:00-10:10 Opening Remarks</b>			
<b>10:10-11:10</b>	<b>Session1 : Cold Spray / Warm Spray I</b>	Chair	Kazuhiko SAKAKI
101	Relations of Physical Properties of a Copper Particle and Adhesion Rate in the Cold Spray	Fukuda Metal Foil & Powder Co., Ltd. " "	○ Katsunori OTOBE Yukitaka HAMADA Shinichi NISHIMURA
102	Improvement of Nozzles and Coatings Performance in Development of Low Temperature - High Velocity Air Fuel Spray System	Ariake National College of Technology University of the Ryukyus Coaken Techno Co. Ltd.	○ Kouki MIURA Makiko OKAMOTO Kouichi AKIMOTO
103	Effectiveness of Spark Plasma Sintering Treatment for Electric Conductivity of Cold-Sprayed Cu deposits	Tohoku University "	○ Kiyohiro ITO Kazuhiro OGAWA
--- Break (11:10-11:20) ---			
<b>11:20-12:20</b>	<b>Session2 : Cold Spray / Warm Spray II</b>	Chair	Yuji ICHIKAWA
104	Development of Cold Sprayed Material Bonding Technique without Heat Affected Zone	Fracture and Reliability Research Institute, Tohoku University	○ Xu LIANHUA
105	Role of Interlayer on the Adhesion Strength of Metallic Coating Deposited on the Polymer Substrate	Toyohashi University of Technology " "	○ Amirthan GANESAN Motohiro YAMADA Masahiro FUKUMOTO
106	Attempt to Improve Properties of Cold Sprayed Metallic Coatings by Friction Stir Processing	Shinshu Univiesity Graduate School, Shinshu University Joining and Welding Research Institute Osaka University Okinawa National College of Technology	○ Kazuhiko SAKAKI Kei KONDO Kazuhiro NAKATA Takuya TSUMURA
--- Lunch Break (12:20-13:10) ---			
<b>Special Lecture : Researches on Materials and Tribology for and Physical Properties of Hydrogen</b>			
<b>13:10-14:10</b>	<b>Prof. Joichi SUGIMURA</b> <b>Director, Research Center for Hydrogen Industrial Use and Storage (HYDROGENIUS), Kyushu University</b>	Chair	Kazunori SAKATA
--- Break (14:10-14:20) ---			
<b>14:20-15:40</b>	<b>Session3 : Spray Process</b>	Chair	Kazuto SATO
107	Development of the Low Environmental Impact Type Thermal Spray Technologies Using the Hydrogen-based Fuel Gases	Fujikikosan Corp. " " " " Fukuoka Industrial Technology Center " Iwatani Industrial Gases Corp. Kyushu University "	○ Kazunori SAKATA Masakazu OZEKI Shiko SASAKI Yasuhiro SHINYA Michiko OGATA Yoshito KOGA Yoshifumi YOSHIDA Ichihito NARITA Hirokuni MIYAHARA
108	Synthesis of the Metal Oxide Coating by the Reactive Flame Spraying Method from Organic Metal EDTA Complex Powders	Nippon Steel & Sumikin Hardfacing Co., Ltd. " Nagaoka University of Technology Chubu Chelest Co., Ltd. Nagaoka University of Technology	○ Yu LI Masahiro NOGUCHI Tetsuo SEKIYA Atsushi NAKAMURA Hidetoshi SAITO
109	Fabrication of High Electrical Resistivity AlN Film with Supersonic Free-Jet PVD	Graduate School of Engineering and Science Shibaura Institute of Technology Hitachi Ltd. " Shibaura Institute of Technology	○ Yukari MAENO Atsushi YUMOTO Kazuaki NAOE Hiroyuki TENMEI Katuhisa NAGAYAMA
110	Production of Sprayed Aluminum Coatings on Plastic Substrate by Low Temperature-High Velocity Air Fuel Spray System	Ariake National College of Technology " " "	○ Hirokazu KOJIMA Ryoichi KAWASE Yasunori TANAKA Kento MATSUKURA
--- Break (15:40-15:50) ---			
<b>15:50-17:50</b>	<b>Organized Session How can coating quality be improved by modifying powder properties?</b>	Chair	Hiroshi KATANODA
OS1	Powder Material for Cold Spraying of Titanium Dioxide Coating with High Photocatalytic Activity	Toyohashi University of Technology	Motohiro YAMADA
OS2	Deposition Characteristics of Powder Compressive Strength by Cold Spray	Iwate Industrial Research Institute	Tetsuya SONODA
OS3	Influence of Powder Properties on Structure and Properties of Cermet/ceramic Coatings by Thermal Spraying	Fujimi Incorporated	Junya KITAMURA
OS4	The Design of Powder Materials for Thermal Spraying	Powlex Co., Ltd.	Junichi YASUOKA
OS5	Influence of Property of Thermal Spray Material Powder on Characteristics of Thermal Spray Coatings Discussion	Sulzer Metco Japan Ltd.	Tetsuyoshi WADA
--- Break (17:50-18:10) ---			
<b>18:10-20:00 Awarding Celemony and Banquet</b>			

Poster and exhibition session

21, June, 2013

9:00-10:00 Session4 : Applications I		Chair	Ryoichi KAWASE	Poster and exhibition session
201	Preliminary Study of HVAF Process for Tungsten Carbide Compared with HVOF and Hard Chrome Plating	Fujimi Incorporated University West Fujimi Incorporated // Höganäs AB	○ Junya KITAMURA Christophe LYPHOUT Junya YAMADA Kazuto SATO Senad DIZDAR	
202	Effect of WC-Co-Cr powder on High Velocity Air Fuel spraying	Fujimi Incorporated // // Shinshu Univiesity // //	○ Kazuto SATO Junya YAMADA Junya KITAMURA Hidenori MIYAJIMA Masami KATO Kazuhiko SAKAKI	
203	Application of Heat Resistant Spray Technique to the Piston	University of Yamanashi // // //	○ Masashi SEKINE Kazuki NAKAZAWA Keiji SONOYA Masanobu NAKAMURA	
--- Break (10:00-10:10) ---				
10:10-11:10 Session5 : Applications II		Chair	Keiji SONOYA	
204	Fabrication of Optical Alumina Coating by Plasma Spraying	Graduate student, Toyohashi University of Technology Toyohashi University of Technology // Optcom Co., Ltd.	○ Kazuaki FURUKAWA Motohiro YAMADA Masahiro FUKUMOTO Shinobu ITO	
205	Photocatalytic Properties of Sol Sprayed Titanium Dioxide Coatings	Ariake National College of Technology // //	○ Shoki NISHIHARA Yasunori TANAKA Ryoichi KAWASE	
206	Mechanical, Electrical and Thermal Conduction Properties of Dense Alumina Coatings by Plasma Spraying	Fujimi Incorporated // // // //	○ Junya KITAMURA Kazuto SATO Yoshitomo KOBAYASHI Toshihiko TOSAKI Kyohei OHTA	
--- Break (11:10-11:20) ---				
11:20-12:20 Session6 : Corrosion Protection / Microstructure		Chair	Kazuhiko SAKAKI	
207	Anti-corrosion Mechanism of Al-Mg Alloy Spraying	Fuji-giken.Co.,Ltd. //	○ Keisuke FUJIKAWA Yuki KOJIMA	
208	Study on Microstructural Evaluation Method for Cold Sprayed Copper Coating	Tohoku University // // //	○ Yuji ICHIKAWA Yusuke WATANABE Isamu NONAKA Hideo MIURA	
209	EBSD Observation of Bond Coats Made by Different Deposition Process	Hitachi,Ltd. // //	○ Takeshi IZUMI Hideyuki ARIKAWA Yoshitaka KOJIMA	
12:20 Best Presentation Awarding and Closing Remarks				
13:20-16:30 Industrial Tour				