

# 2010 Autumn National Meeting of Japan Thermal Spray Society

29-30 November, 2010 ( Institute of Industrial Promotion Kawasaki, Kawasaki, JAPAN)

## Technical Program

Monday 29 November		
10:00-10:20	<b>Opening Remarks</b>	
10:20-12:00	<b>Coating property and Evaluation method</b>	
101	Effect of nitrogen flow rate on mechanical properties of metallic coatings by warm spray deposition	Makoto Watallabe, Christoph Brauns, Masayuki Komatsu, Seiji Kuroda (NIMS)
102	Investigation on Microstructure and Property of Al <sub>2</sub> O <sub>3</sub> Sprayed Coatings	Taguchi Kensuke, Okada Tomo, Inaba Mitsuharu, Tani Kazumi (TOCALO Co., Ltd.)
103	Structure of LPPS Sprayed Cobalt Based Alloy Coating	Yoshifumi Kobayashi, Nobuyoshi Kuroki, Akihiro Kanno, Ken-ichiro Togoe, Jun-ichi Takeuchi (TOCALO Co., Ltd.)
104	Investigation for adhesive strength evaluation of interface by tensile pin test	JENNY YAP KIM YEN, Hiroyuki Mita, Masanobu Nakamura, Kazuyoshi Ishida, Keiji Sonoya (Univ. of Yamanashi)
105	Adhesion Strength Evaluation of Cold-Sprayed Titanium Dioxide Particles	Motohiro Yamada (Toyohashi Univ. of Technology), Michelle E. Dickinson (The Univ. of Auckland), Koichiro Shima, Noviana Tjitra Salim, Hiromi Nakano, Masahiro Fukumoto (Toyohashi Univ. of
---Lunch (12:00-13:00)---		
13:00-14:00	<b>Spray Process (1)</b>	
106	Formation of Alfa-Alumina film by Aerosol Deposition and its structural, mechanical properties	S. Hirose, Y. Ezuka, N. Sakamoto, S. Oh, J-H. Park and J. Akedo (AIST)
107	Improvement of Deposition Efficiency of Cold Sprayed Titanium and Stainless Steel by Extended Powder Heating Section of the Gun Nozzle	KumeMasatsugu, Sakaki Kazuhiko, Furumaki Myuji (Shinshu Univ.)
108	Adhesion Behavior of Silicon Particle on silicon wafer and copper foil by Cold Spray Process (Consideration for Applying Cold Spray Process for Lithium Secondary Battery)	Yuto Daiki, Sakaki Kazuhiko, Kaneko Hiroki, Shimizu Yasuo, Endo Morinobu (Shinshu Univ.)
---Break (14:00-14:10)---		
14:10-15:50	<b>Invited Lectures</b>	
I1	Our Present Work on Splat Formation in Thermal Spraying	Javad Mostaghimi (University of Toronto, Canada)
I2	The Current Situation and Future Prospect of Thermal Spraying Industry in China	Huang Xiaou (The Thermal Spraying Committee of China Surface Engineering Association, China)
---Break (15:50-16:00)---		
16:00-17:40	<b>Pre-treatment and Post-treatment</b>	
109	Influence of Shot peening in Fatigue Strength of WC-Co Thermal Sprayed Materials	Yuzo Kono, Yoshiko Shinhara, Mitsuo Kido (Hiroshima Institute of Technology), Rvota Ueki (YAMABIKO Co.,Ltd)
110	Investigation of low-temperature plasma nitriding of plasma sprayed stainless coating	Shinichiro Adachi, Nobuhiro Ueda (Technology Research Institute of Osaka Prefecture
111	Characteristic investigation of boiler tube crack	Toshio Yoshida, Takeya Akihiro (Dai-ichi High Frequency Co., Ltd.)
112	Effect of thermal spraying condition and WC particle size on surface damage of WC-Co coatings under heavily loaded rubbing contact conditions	Kei Nomakuchi, Fumihiko Itoigawa (Nagoya Institute of Technology), Junya Kitamura, Kazuto Sato (Fujimi Incorporated), Seiji Kuroda, Makoto Watanabe, Masayuki Komatsu (NIMS)
113	Porosity measurement of thermal sprayed ceramic coatings by SEM cross sectional photography and image analysis (3rd report)	Masayuki Komatsu, Seiji Kuroda (NIMS), Vautherin Beatrice (ENSIL)
Tuesday 30 November		
9:30-10:30	<b>Theory and Fundamentals of Spray process</b>	
201	Stress dispersion method of cermet coating	Yasunari Ishikawa, Kazuo Hamashima (Asahi Glass Co.,Ltd)
202	Comparison of Particle Behavior of Warm Spray and HVOF Thermal Spray by One-Dimensional Analysis	Katanoda Hiroshi (Kagoshima Univ.)
203	Influence of Particle Size Distribution and Particle Shape on Cold Sprayed Coatings	Norihiro Mikami, Kazuhiro Ogawa (Tohoku Univ.), Michiyoshi Sone, Hirotaka Fukanuma (PLASMA Co.Ltd)
---Break (10:30-10:40)---		
10:40-12:00	<b>Spray process (2)</b>	
204	Improvement of mechanical property of WC-cermet coatings prepared by High Velocity Air Fuel (Influence of powder composition and spray condition on the mechanical property of HVOF sprayed WC-cermet	Takizawa Kiyooki, Sakaki Kazuhiko, Miyajima Hidenori (Shinshu Univ.), Kitamura Junya, Satou Kazuto (Fujimi Incorporated)
205	Effect of Feedstock Particles' Strength on the Structure and Some Mechanical Properties of Warm-Sprayed WC-Co Coatings	Pornthep Chivavibul, Makoto Watanabe, Masayuki Komatsu, Seiji Kuroda (NIMS), Kazuto Sato, Junya Kitamura (Fujimi Incorporated)
206	Fabrication and Evaluation of Ceramics Coatings by Atmospheric Microwave Plasma Spray	T.Kondo, T.Yasui and M.Fukumoto (Toyohashi Univ. of Technology)
207	Development and Sprayed Coating Property of Low Temperature HVOF Spray System	Ryoichi Kawase, Yasunori Tanaka (Ariake National College of Technology), Makiko Yonamine (Univ. of the Ryukyus), Koichi Akimoto (Coaken Techno Co.,Ltd)
---Lunch (12:00-13:15)---		
13:15-14:30	<b>Special Lecture</b>	
S1	The concept of "Kawasaki-City of Music"	Takao Abe (Kawasaki City)
---Break (14:30-14:40)---		
14:40-16:00	<b>Organized Session</b>	
O1	The key to adoption for Strategic Promotion of Supporting Industry and Forefront of Corporate Research	
---Break (16:00-16:10)---		
16:10-17:30	<b>Reactive spray and New process</b>	
208	Formation of NiAl Coating by Reactive Suspension Plasma Spraying	Kyouhei Nakamoto, Yoshiki Tsunekawa, Masahiro Okumiya (Toyota Technological Institute)
209	Study for Nickel-base Self Fluxing alloy Coating to the inner aspect of	Takeya Akihiro, Tanabe Michio (Dai-ichi High Frequency Co., Ltd.)
210	Synthesis of Titanium Dioxide Powders via Hydrolysis Titanyl Sulphate for Cold Spray Coating	Tjitra Salim Noviana, Yamada Motohiro, Nakano Hiromi and Fukumoto Masahiro (Toyohashi Univ. of Technology)
211	Application study of spray efficiency on WC cermet coating using Cold Spray	kazuto Sato, Haruhiko Furukawa, Junya Kitamura (Fujimi Incorporated), Dowon SEO, Kazuhiro Ogawa (Tohoku Univ.)
17:30-17:50	<b>Closing Remarks</b>	