

Photo: Linde AG

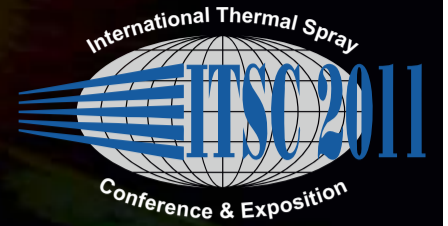
HALL G 1						
09:00	OPENING OF ITSC 2011 WELCOME K. Middeldorf, General Manager, DVS C. Kay, General Chairman ITSC 2011 BEST PAPER AWARDS ITSC 2011 K. Bobzin, Technical Chairman ITSC 2011 TSS HALL OF FAME C. Kay, TSS President RENÉ-WASSERMAN-AWARD C. Wasserman, President TLS TeroLab Surface Group SA PLENARY LECTURE C. Siry, Lufthansa Technik AG Requirements and field experience of applied aircraft surface technologies Session Chairman: P. Heinrich, General Chairman ITSC					09:00
	HALL A	HALL B 2.1	HALL B 2.2	HALL C 2.1	HALL C 2.2	
10:40	COFFEE BREAK, FOYER GROUND FLOOR					10:40
	Aviation Industry 1	HVOF & Flame Spraying 1	Modeling & Simulation 1	Wear Protection 1	Powders, Wires & Suspensions	
11:00	Session Chairmen: C. Giolli / H. Kreye High efficient thermal spraying processes and strategies for aviation industry H. Kaßner*, T. Gärtner, E. Höck	Session Chairmen: K. Nassenstein / C. Moreau Ceramics metallization by detonation spraying I. Smurov*, V. Ulianitsky, S. Zlobin	Session Chairmen: B. Wielage / J. Legoux Modeling of peening stress in HVOF sprayed IN718 coating C. Lyphout*, P. Nylén, C. Persson	Session Chairmen: K. Bobzin / S. Sampath Abrasive wear of flame sprayed and fused NiCrBSi alloys S. Dizdar*, L. Nilsson, B. Maroli	Session Chairmen: G. Schürholt / M. Dorfman New cermet powders for HVOF spraying with improved corrosion and oxidation resistance for offshore, mining and power generation applications S. Zimmermann*, B. Gries, B. Brüning	11:00
11:25	Thermal barrier layers in rocket engines development and testing D. Soysal*, A. Ansar, T. Bauer, M. Negri, H. Ciezki	Influence of handling parameters on coating characteristics in order to produce near-net-shape wear resistant coatings B. Krebs*, W. Tillmann	Stress and microstructure evolutions during deposition of thermal barrier coatings by plasma spraying K. Shinoda*, T. Nakamura, S. Sampath	Influences of process and material morphology in the case of carbide coatings J. Girgulis, A. Barth*, K. Ramlal, C. Dambra	Novel titania feed-stock powder for significant improvements in process economics and enhanced coating properties A. Sharma*, M. Nestler	11:25
11:50	Improving long term oxidation protection for gamma-TiAl substrates T. Linke, K. Bobzin, T. Schläfer*, T. Warda, M. Brühl	High velocity suspension flame spraying of nano oxide containing suspensions A. Killinger*, P. Müller, R. Gadow	Splat formation mechanism in thermal spray process according to substrate temperature and ambient pressure change M. Fukumoto*, K. Yang, Y. Ebisuno, S. Yoshida, M. Yamada, T. Yasui	Mechanical properties of WC-Co coatings prepared by cold and warm spray processes J. Kitamura*, K. Sato, M. Watanabe, P. Chivavibul, M. Komatsu, K. Sakaki, S. Kuroda	Comparing study of iron based, highly carbide containing alloys regarding melting and atomisation properties S. Schuberth*, B. Wielage	11:50
12:15	Design of thermal barrier coatings for optimal performance by finite element modeling M. Gupta*, P. Nylén, J. Wigren	Study on the stainless steel 316L coatings sprayed by high pressure HVOF B. Sun*, H. Fukunuma, N. Ohno	A method for residual stress estimation of AZ31 under cold spray coating R. Ghelichi*, M. Guagliano, H. Jahed, J. Villafuerte	Functionally graded WC-Co/NiAl HVOF coatings for damage tolerance, wear and corrosion protection L. Lusvardi*, G. Bolelli, V. Cannillo, R. Rosa, A. Valarezo*, W. Choi, C. Weyant, S. Sampath	What makes a good precursor for solution plasma spray E. Jordan*, C. Muoto, M. Gell, M. Aindow	12:15
12:40	OPENING OF DVS EXPO, EXPO HALL H					12:40
13:00	LUNCH BREAK, EXPO HALL H					13:00
	Metals Processing 1	Cold Spraying 1	Tribological Coatings 1	Nanomaterial Coatings 1	Characterization & Testing 1	
14:00	Session Chairmen: G. Bloschies / T. Schläfer Trends of thermal spray technology in steel industry from the view point of patent applications in Japan Y. Namba*, K. Tani	Session Chairmen: P. Heinrich / C. Kay Study of powder condition influence on precipitation hardening stainless steel coatings obtained with cold gas spraying S. Dosta, C. Lorenzana*, N. Martinez, S. Dosta, J. Guillemany	Session Chairmen: K. Tani / M. Boulos Sintering process occurring at suspension plasma sprayed of some oxides L. Pawlowski*, L. Latka, S. Goryachev, S. Kozerski	Session Chairmen: S. Tao / P. Fauchais Nano surfaces - a future for thermal spray? A. Nicoll*	Session Chairmen: X. Huang / C. Hofmann Improvement in spray coating adhesion by single splat study S. Goutier*, M. Vardelle, P. Fauchais	14:00
14:25	Tribological behavior of novel suspension plasma sprayed coatings for hot extrusion tools M. Erne*, D. Kolar, K. Möhwald, F. Bach	Influence of powder particle oxidation on properties of cold sprayed tantalum L. Descurninges*, M. Jeandin, A. Nifa, L. Berthe, M. Boustie, K. Ogawa, T. Laguionie, L. Bianchi	Understanding the intrinsic correlation between thermo-mechanical properties and microstructural characteristics of plasma sprayed coatings Z. Yin*, X. Tan, S. Tao, C. Li, Q. Wang, C. Ding	Nanostructured WC-Co coatings manufactured from fine powders (10 + 2 µm) with ultra fine carbides (400 nm) by means of HVOF I. Baumann, W. Tillmann, P. Hollingsworth*, M. Tolan, M. Paulus, F. Wieland	Consideration of adhesion mechanism of aluminum coating on various kinds of glass substrate by cold spray K. Sakaki*, T. Idemoto, K. Takada	14:25
14:50	Properties of low-pressure cold sprayed coatings for repairing of casting defects H. Koivuuto, M. Kymälähti, P. Vuoristo*	Investigation on the effect of helium-to-nitrogen ratio as propellant gas mixture on the processing of titanium coating using cold gas dynamic spray and nozzle design optimization E. Irissou*, F. Ilina, W. Wong, M. Tremblay, J. Legoux, S. Yue	Heat-treatment induced microstructural evolution of TiC-based hard metal coatings S. Matthews*, J. Fendt, M. Hyland, L. Berger	Development of composite coatings composed of a stainless steel matrix and tungsten carbide nano-inclusions by plasma spraying K. Wittmann-Ténéze*, J. Pereira, P. Breilvet, L. Bianchi	Adhesive strength evaluation of thermal sprayed coatings by tensile pin test K. Sonoya*, M. Nakamura, K. Ishida	14:50
15:15	Development of distortion compensation technologies for press die in the automotive industry G. Bae*, H. Park, J. Won, W. Yong, K. Kang, C. Lee	Fatigue behavior of Ti alloys coated with cold spray process M. Guagliano*, R. Ghelichi, A. Trentin, S. Vezzù, S. Reich, S. Bagherifard	Thermophysical and microstructural studies on thermally sprayed chromium carbide coatings S. Thiele*, L. Berger, J. Spatzier	Investigation of mechanical properties of coatings and bulk components of various grain sized tungsten-carbide-cobalt based materials R. Gansert*, C. Melnyk, D. Grant, D. Lugan, B. Weinstein, M. Watson	Effect of vacuum heat treatment on tensile strength and fracture performance of cold-sprayed Cu-4Cr-2Nb coatings M. Yu*, W. Li, C. Zhang, H. Liao	15:15
15:40	COFFEE BREAK, EXPO HALL H					15:40
	Metals Processing 2	Cold Spraying 2	Fuel Cells 1	Corrosion Protection 1	Characterization & Testing 2	
16:00	Session Chairmen: S. Xu / H. Höhle Direct manufacturing of titanium pipe by cold spray S. Gulizia*	Session Chairmen: B. Jodoin / S. Hartmann Chemical interaction and adhesion in cold gas spraying K. Donner*, F. Gärtner, T. Klassen	Session Chairmen: T. Lampke / M. Nestler Vacuum plasma sprayed insulating layers suitable for brazing in high temperature fuel cells J. Arnold*, R. Henne, R. Ruckdäschel, H. Grünling, U. Maier	Session Chairmen: A. Kirsten / C. Schulz Gases and their right use in thermal spray processes W. Krömmner*, P. Heinrich	Session Chairmen: A. Bachmann / S. Zimmermann Characterization of mechanical properties by nanoindentation of bimodal WC-VC-Co coatings processed by HVOF thermal spraying C. Poblano-Salas*, J. Cabral-Miramontes, F. Espinoza-Beltrán, R. Botello-De Jesús	16:00
16:25	Build-up resistance of HVOF thermal sprayed NiCrAlY-Y ₂ O ₃ cermet coatings Y. Cheng-Sheng*, H. Tsai-Shang, H. Jing-Yi, T. Mao-Jeng	Application of parameter selection maps in cold spraying H. Assadi*, F. Gärtner, T. Schmidt, H. Richter, J. Klemann, K. Binder, T. Klassen, H. Kreye	New thermal spray powders for SOFC components S. Zimmermann, B. Gries*, H. Nakadate, B. Brüning	Comparative study of thermal sprayed polymers for corrosion and wear protection C. Lima*, N. Souza, F. Camargo	Investigation on mechanical properties of cold sprayed aluminum coatings using image-based finite element method F. Azarmi*, G. Karami	16:25
16:50	Manufacturing and properties of cold sprayed Cu based coating materials for sputtering target K. Lee*, Y. Jin, J. Cho, D. Park, H. Kim	Life cycle assessment comparison of various cold spray processes A. Moign, A. Vardelle*, C. Chazelas, J. Legoux, E. Irissou	Improvement in microstructural integrity of Ca-doped LaCrO ₃ interconnector coatings for SOFCs C. Park, K. Baik, T. Jeong*	Performance of multilayered mullite based EBCs in simulated working conditions E. Garcia*, J. Mesquita-Guimarães, P. Miranzo, M. Osendi, C. Cojocar, C. Moreau, R. Lima	Electrochemical impedance measurement of thermally sprayed aluminum zinc alloys in synthetic seawater K. Tani*, Y. Takatani, T. Masugata	16:50
17:30	EXHIBITOR RECEPTION, EXPO HALL H					17:30
	DVS PHOTO COMPETITION - AWARD CEREMONY					

TECHNICAL PROGRAM

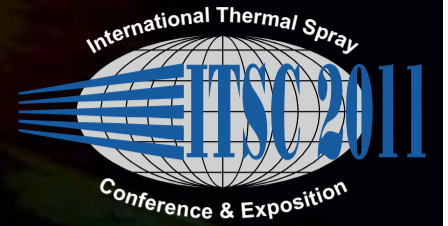
SEPTEMBER 28, 2011

DVS Congress

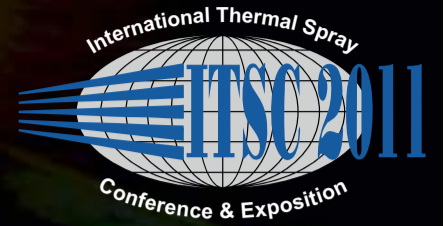
DVS Expo



	HALL A	HALL B 2.1	HALL B 2.2	HALL C 2.1	HALL C 2.2	
	Aviation Industry 2 Session Chairmen: M. Hertter / R. Lima	Cold Spraying 3 Session Chairmen: T. Klassen / J. Karthikeyan	Fuel Cells 2 Session Chairmen: J. Wilden / I. Smurov	Nanomaterial Coatings 2 Session Chairmen: L. Berger / P. Vuoristo	Characterization & Testing 3 Session Chairmen: W. Tillmann / M. Ducos	
09:00	Erosion performance of heat treated WC-12Co HVOF coatings P. Clavette*, B. Laube, A. Nardi, J. Shi, R. Ely, L. Cantolanza	Cold spraying of ceramic coatings - A feasibility study S. Ravanbakhsh*, H. Assadi, H. Nekoomanesh, S. Hassanzadeh, E. Taheri-Nassaj	Deposition of composite LSCF-SDC and SSC-SDC cathodes by axial-injection plasma spraying J. Harris*, O. Kesler	Nanostructured metal matrix composite coating production by pulsed gas dynamic spraying M. Yandouzi*, B. Jodoin	Testing of the electric conductivity of metal coatings F. Trenkle*, S. Hartmann, H. Vollmar	09:00
09:25	Mechanical property of multi-pass aluminium alloy cold sprayed coatings for repair S. Rech*, E. Irissou, A. Trentin, S. Vezzù	Deposition behavior and adhesion strength of cold-sprayed TiO ₂ particles M. Yamada*, M. Dickinson, K. Shima, N. Tjitra Salim, H. Nakano, M. Fukumoto	Parameter effects on mechanical properties and thermal stability of SOFC electrolytes deposited by suspension thermal spray Y. Wang*, J. Legoux, R. Neagu, R. Hui	New metastable structures and properties of alloyed Cr ₂ O ₃ - and Al ₂ O ₃ -based coatings: powder manufacturing and HVOF deposition T. Suhonen*, T. Varis, U. Kanerva, J. Lagerbom, X. Liu, Y. Ge, A. Vaajoki, O. Söderberg, S. Hannula	Microtomographic analysis of splat formation and layer build-up of a thermally sprayed coating J. Nellesen*, W. Tillmann, M. Abdulgader	09:25
09:50	Advances on the repair of magnesium castings by modern solid state spray techniques - description of commercially implemented methods in the aerospace industry J. Villafuerte*	Microstructural studies of cold sprayed nickel, copper and titanium coatings Y. Zou*, E. Irissou, J. Legoux, W. Wong, S. Yue	Solid oxide fuel cell electrolytes produced by a combination of suspension plasma spray and very low pressure plasma spray J. Fleetwood, R. Trice*, E. Slamovich, A. HALL, J. McCloskey	In-situ observation of the grain growth of nanocrystalline zirconia powder and coating X. Jiang*, W. Ye, H. Wang	Life cycle assessment of surface preparation processes implemented before thermal spray N. Serres*, S. Costil, A. Lamraoui, C. Langlade, C. Coddet	09:50
10:15	Robust abrasion coating development for aero engine compressor applications S. Wilson*, D. Garcia, P. Fiala, E. Kozculab, D. Sporer, O. Sabouni, M. Nestler	Abnormal intermetallic compound formation of cold sprayed Cu-Sn coatings H. Lee*, K. Ko, J. Choi	LPPS hybrid technologies for emerging energy applications - recent developments M. Gindrat*, R. Damani	Ultra-small angle X-Ray scattering (USAXS) in-situ quantification of void network evolution during annealing of nanometer-sized YSZ plasma sprayed coatings G. Montavon*, J. Ilavsky, A. Denoirjean, P. Fauchais, A. Bacciochini, K. Wittmann-Tenèze	Analysis of Ni-Al coatings in-situ processed by plasma transferred arc A. d'Oliveira*, C. Brunetti, G. Pintaude	10:15
10:40	COFFEE BREAK, EXPO HALL H					10:40
	Industrial Gas Turbines 1 Session Chairmen: T. Duda / R. Vaßen	Alternative Power Generation Session Chairmen: P. Nylen / C. Coddet	New Processes 1 Session Chairmen: C. Wasserman / S. Kuroda	Automotive Industry 1 Session Chairmen: C. Verpoort / F. Ernst	Final Colloquium "Thermal Spraying" Session Chairmen: W. Krömmner / J. Schein	
11:00	Microstructure, mechanical and thermo physical properties of plasma sprayed samarium zirconate coatings X. Zhong, J. Yu, H. Zhao, X. Zhou, S. Tao*, C. Ding	Cost effective manufacturing of moulds for CFRP component production M. Seeger*, R. Eggert, D. Jonke, M. Englhart, K. Drechsler	Phase stability and performance of advanced composite environmental barrier coatings for SiC/SiC ceramic matrix composites D. Zhu*, B. Harder, D. Fox	Local anti corrosion coating on automotive steel sheet by cold spray technology M. Ducos*, B. Gay, C. Verhave, H. Höll	Overview of the AiF/DFG-Research Cluster "Thermal Spraying" - history, projects, facts T. Warda*	11:00
11:25	Evaluation of the lifetime and thermal conductivity of dysprosium stabilised thermal barrier coating systems N. Curry*, N. Markocsan, L. Östergren, X. Li, M. Dorfman	Development of arc thermally sprayed Fe-Mn-Cr-Si coatings against cavitation erosion A. Pukasiewicz*, A. Capra, R. Paredes, A. d'Oliveira	Plasma spray - physical vapor deposition of low conductivity environmental barrier coating systems B. Harder*, D. Zhu	Sliding wear behavior of HVOF sprayed metal matrix carbides E. Altuncu*, A. Uzun, F. Üstel	W1 - Development of nanostructured iron-based alloys with enhanced corrosion resistance for thermal spray applications M. Erne*	11:25
11:50	TBC coating cost reduction by optimization of the atmospheric plasma spray process S. Mihm*, T. Duda, H. Gruner, G. Thomas, B. Dzur	Atmospheric plasma spraying of electrodes for conversion of electricity to hydrogen by high temperature alkaline electrolysis of water P. Nielsen*, T. Mathiesen, J. Klæstrup Kristensen, L. Rischel Hilbert, L. Yde	Effect of solution chemistry on solution precursor plasma spray deposition of LiFePO ₄ K. Chien*, T. Coyle	Supersonic flame sprayed cylinder liner coatings and the benefits of their intrinsic porosity A. Manzat*, A. Vogel, A. Killinger, R. Gadow	P1 - Abrasion resistant thermally sprayed iron-based nanostructured composite coatings for application in paper industry C. Rupprecht*	11:50
12:15	Milling and cryo-milling affecting MCrAlY high temperature oxidation mechanism C. Giolli*, A. Scrivani, A. Giorgetti, B. Bonferroni, G. Bolelli, G. Kim	Effect of directional re-solidification on thermal plasma spray silicon depositions D. Jackson*, M. Sereda, R. Gansert	Comparison of electrical properties of Al ₂ O ₃ sprayed coatings from feedstock powders and aqueous suspensions F. Toma*, S. Scheitz, L. Berger, V. Sauchuk, C. Rödel, A. Pöthhoff	Friction improvement of new engine generations by PTWA cylinder bore coating and new piston rings A. Schwenk, L. Schramm*, C. Verpoort, K. Bobzin, K. Yilmaz, N. Bagcivan, T. Schäfer, S. Theiß	W2 - A novel approach to manufacture fine-grained Fe-based powders for wear and corrosion protection applications B. Rütger*	12:15
12:40	Novel thermal barrier coating material based on composite of gadolinium zirconate/nanostructured yttria partially-stabilized zirconia X. Zhong*, H. Zhao, X. Zhou, S. Tao, C. Ding	Solar selective coatings for concentrating solar power central receivers A. HALL*, K. Van Every, M. Knight, C. Ho, A. Ambrosini, R. Mahoney	Development of high velocity arc spray systems with open nozzle design G. Paczkowski*, C. Rupprecht, B. Wielage	Thermal coating of cylinderbores needs approved processes of pre- and post-treatment G. Flores*	P2 - Development and characterization of thermally sprayed fine Fe-based materials for wear and corrosion applications T. Warda*	12:40
13:05	LUNCH BREAK, EXPO HALL H					13:05
	New Processes 2 Session Chairmen: G. Montavon / D. Soysal	Cold Spraying 4 Session Chairmen: J. Villafuerte / E. Irissou	Quality & Qualification Session Chairmen: W. Herlaar / A. Ohliger-Volmer	Modeling & Simulation 2 Session Chairmen: A. Vardelle / K. Shinoda	Final Colloquium "Thermal Spraying" Session Chairmen: P. Heinrich / J. Schein	
14:00	Effect of nitrogen flow rate on mechanical properties of metallic coatings by warm spray deposition M. Watanabe*, C. Brauns, M. Komatsu, S. Kuroda, H. Katanoda, F. Gärtner, T. Klassen	Influence of the powder morphology and alumina content in cold sprayed Ni-Al ₂ O ₃ coatings F. Seviliano*, P. Poza, S. Vezzù, C. Múnez, S. Rech, A. Trentin	The efficient management of public R&D funding in order to promote the development of the territory A. Scrivani, S. Meneghetti*	Performance analysis and modeling of thermally sprayed resistive heaters J. Lamare*, P. Marcoux, M. Perrault, R. Abbott, J. Légoux	G2 - Process diagnostics - tools for experimental investigation and verification of simulation results in the research cluster "Thermal Spraying" S. Zimmermann*	14:00
14:25	HVOF K2 vs. cold gas spraying A. Schwenk*, A. Wank, M. Liu, K. Zhou, C. Deng, C. Deng	B ₄ C/Ni composite coatings prepared by cold spray of blended or CVD coated powders V. Guipont*, C. Feng, M. Jeandin, O. Amsellem, F. Pauchet, R. Saenger, S. Bucher, C. Lacob	What are the benefits of an association such as GTS for a thermal spray company? W. Krömmner*, P. Heinrich	Modeling a formation of Fe-Cr-Al coating produced by arc spraying Y. Korobov*, S. Nevezhin, M. Shalimov, M. Filippov	P3 - Optimization of a HVOF-process by simulation methods M. Schäfer*	14:25
14:50	Portable high pressure cold sprayed aluminium alloy coatings J. Karthikeyan*, C. Kay	Effects of particle strength of feedstock powders on properties of warm-sprayed WC-Co coatings S. Kuroda*, P. Chivavibul, M. Watanabe, J. Kawakita, M. Komatsu, K. Sato, J. Kitamura	Important and in demand than ever: training and qualification of thermal spray personnel A. Ohliger-Volmer, R. Huber*	Numerical simulation of semi-molten zirconia droplet impingement H. Tabbara*, S. Gu	Q1 - Limits of defect detection during lock-in thermography on thermal spray coatings T. Grund*	14:50
15:15	Rotational HVOF equipment to coat temperature sensitive external and internal surfaces of static parts R. Kassimi*, G. Matthäus, M. Molnar	Cold gas spraying of ceramics H. Gutzmann*, J. Klemann, S. Freese, M. Yamada, F. Gärtner, T. Klassen	E learning training in plasma spraying area S. Costil*, M. Planche, G. Montavon, C. Coddet	Efficient numerical method for the calculation of the structures shape produced by thermal spray A. Ilin*, R. Logvinov, A. Prihodovsky, V. Ploshikhin, D. Jonke	W3 - Cold Spraying of modified Zn-alloy coatings for print application K. Onizawa*	15:15
15:40	COFFEE BREAK, EXPO HALL H					15:40
	Aviation Industry 3 Session Chairmen: H. Kaßner / D. Stöver	Plasma Spraying 1 Session Chairmen: K. von Niessen / A. Schwenk	Process Diagnostics, Sensors & Controls 1 Session Chairmen: J. Zierhut / J. Stricker	Medical Industry 1 Session Chairmen: H. Gruner / S. Dosta	Pre- & Post-Treatment 1 Session Chairmen: T. Kraak / H. Jungklaus	
16:00	The protectiveness of alumina scales in thermal barrier coating with cold sprayed bond coating A. Manap*, K. Ogawa	Enhancement of amorphous phase formation in alumina-YSZ coatings deposited by suspension plasma spray process F. Tarasi*, A. Dolatabadi, M. Medraj, J. Oberste-Berghaus, C. Moreau	Development of optical monitoring of the thermal spraying Y. Chivel*, I. Smurov	Detonation spraying of TiO ₂ -Ag: evolution of phase composition and microstructure of the coatings D. Dudina*, S. Zlobin, A. Bychkov, N. Bulina, V. Ulianitsky, O. Lomovsky	Review on the state-of-the-art of anilox-manufacturing - from the coated cylinder up to the gravure J. Döring*, L. de Schoulepnikoff	16:00
16:25	Structural and mechanical properties analysis of Si/Mullite/BSAS environmental barrier coatings exposed to thermal cycling in water vapour environment C. Cojocar*, C. Moreau, R. Lima	Microplasma wire spraying of biomedical Ti-coatings Y. Borisov*, A. Kisilitsa, S. Voinarovitch, V. Podgaetskiy	Investigation and comparison of particle parameters determined with spraywatch and LDA (laser doppler anemometry) during the cold gas spraying process S. Zimmermann, J. Tewes*, M. Hertter, H. Voggenreiter, T. Biermordt, M. Heinrich, K. Landes, J. Schein	Characterization of novel bioactive hydroxyapatite-TiO ₂ coatings obtained by high velocity oxy-fuel H. Melero*, J. Fernández, S. Dosta, J. Guilemany	Thermal barrier coatings on surfaces with micro-machined roughness profiles P. Seiler*, M. Bäker, J. Rösler, M. Schweda, T. Beck	16:25
16:50	Nano modified NiCrAlY coatings for bond coat for gas turbine blades A. Khanna*, S. Sahu	Mechanical behavior of metal foam core sandwich structures E. Mari*, T. Coyle, J. Mostaghimi	Intelligent gun technology: reducing costs with evolink in R&D and operations M. Koller*, S. Ort	The importance of powder morphology for cold spraying of titanium dioxide N. Tjitra Salim*, M. Yamada, H. Nakano, K. Shima, H. Isago, M. Fukumoto	Effect of hardness in blasted substrate surface on adhesive strength of sprayed coatings T. Maruyama*, T. Kishita, T. Kobayashi	16:50
17:30	ITSC POSTER SESSION EVENING, FOYER 1 ST FLOOR					17:30
19:30	JTST AWARD					19:30



	HALL A	HALL B 2.1	HALL B 2.2	HALL C 2.1	HALL C 2.2	
09:00	Industrial Gas Turbines 2 Session Chairmen: C. Cojocaru / A. Scriverani Oxidation behavior of bond coats with and without Y addition T. Izumi*, H. Arikawa, Y. Kojima, M. Okada, T. Hisamatsu	Modeling & Simulation 3 Session Chairmen: R. Bolot / M. Fukumoto Development of analytical model to predict cold spray critical velocity from 3D-FEM simulations R. Ghelichi*, M. Guagliano, S. Bagheri, A. Trentin, S. Vezzù, S. Rech	HVOF & Flame Spraying 2 Session Chairmen: G. Bolelli / K. Zhou Deposition of surface-melted YSZ particles by flame spraying C. Li*, X. Wang, C. Li, G. Yang	Tribological Coatings 2 Session Chairmen: L. Lusvarghi / J. Döring Improved microstructure and properties of HVOF sprayed cermet coatings modified by laser remelting post-treatment Z. Yin*, X. Tan, Q. Deng, C. Li, W. Fu, S. Wang, S. Tao	Pre- & Post-Treatment 2 Session Chairmen: S. Siegmann / R. Eijkenboom Polymers in thermal spray L. Grimenstein*	09:00
09:25	Improving atmospheric plasma spraying of zirconate thermal barrier coatings based on particle diagnostics G. Mauer*, V. Kochubey, R. Vaßen, D. Stöver	Influence of computational grid spacing on gas particle flows of cold spray H. Katanoda*	Influence of HVOF spraying parameters on the wear resistance of Al-SiC composites coatings deposited on ZE41 magnesium alloy A. López*, J. Rams, B. Torres, P. Rodrigo, M. Campo	WC-Co/metal multi-layer coatings by warm spray deposition M. Watanabe*, M. Komatsu, S. Kuroda	Influence of sealing treatments of thermally sprayed coatings on their corrosion, wear and high temperature performances K. Niemi, P. Sorsa*, J. Knuutila, J. Laurila, P. Vuoristo	09:25
09:50	Energy yield of thermal barrier coatings in turbine engines A. Scriverani, U. Bardi*, S. Meneghetti	Application of structure based models of mechanical and thermal properties of plasma sprayed coatings M. Vilemova*, J. Matejček, R. Musalek	Investigation of in-flight particle characteristics of HVOF sprayed MCrAlY coatings W. Saechua*, D. Zhang, K. Voisey, G. McCartney	Effect of suspension characteristics on microstructure of suspension plasma sprayed SiC submicron coatings F. Mubarak*, J. Puranen, P. Vuoristo, R. Johnsen, N. Espallargas	Densification and purification of cold sprayed deposits H. Kim*, K. Baik, K. Lee, J. Kim	09:50
10:15	Hybrid conventional and solution-precursor plasma sprayed YSZ coatings for enhanced durability G. Sivakumar*, C. Renjini, D. Rajiv, J. Shrikant	Heat and mass transfer within an evaporating solution droplet in a plasma jet Y. Shan*, H. Yuan	Effect of substrate temperature on splat formation of thermally spread polymer on rough surface K. Alamará*, C. Berndt	Tribological properties of HVOF sprayed nanostructured composite coatings W. Zórawski*, T. Burakowski, S. Skrzypek	Thermal spraying and post-processing of metastable austenitic materials V. Drescher, J. Wilden*, M. Djabanbakhsh, B. Wielage, C. Rupprecht, M. Kunze	10:15
10:40	COFFEE BREAK, EXPO HALL H					10:40
HALL G 2						
11:00	Young Professionals Session Chairmen: J. Heberlein / R. Schmid					11:00
	11:00 Measurement of specific enthalpy under very low pressure plasma spray condition N. Zhang*, F. Sun, L. Zhu, M. Planche, H. Liao, C. Dong, C. Coddet	11:35 Failure mechanism of non-stoichiometric abrasible Mg-Al-Spinel coatings under thermal cyclic loading S. Ebert*, T. Steinke, R. Vaßen, D. Stöver, Y. Cadoret, M. Hancock	12:10 The effect of fracture induced ceramic free surfaces for vacuum kinetic spray bonding W. Yong*, G. Bae, K. Kang, C. Lee			
	11:07 Computational analysis of composite powders impacts to evaluate ceramic coating properties in cold spraying H. Canales*, A. Dolmatov, S. Markovich	11:42 Cold spraying of titanium using enhanced conditions and optimized nozzles K. Binder*, T. Klassen, F. Gärtner	12:17 Development and characterization of oxide ceramic APS coatings for microwave absorption P. Müller*, M. Floristán, A. Killinger, R. Gadow, A. Cardella, C. Li			
	11:14 Thermal spraying of advanced zinc alloys as an addition to hot-dip galvanizing C. Schulz*, K. Bobzin, T. Schläfer, T. Warda	11:49 Development of particle reinforced nanostructured iron based composite alloys for thermal spraying R. Drehmann*, B. Wielage, H. Pokhmurska, C. Rupprecht	12:24 Deposition of nickel-yttria stabilized zirconia and nickel-samarium doped ceria anodes by solution precursor plasma spraying for solid oxide fuel cells C. Metcalfe*, E. Lay, O. Kesler			
	11:21 Correlation of the particle behavior, microstructure and phase evolution during the optimization of HVOF sprayed WC-12Co coatings by means of statistical design of experiments I. Baumann, W. Tillmann, L. Hagen*, M. Tolan, M. Paulus, F. Wieland	11:56 Natural and synthetic layered structures: Nacre vs plasma sprayed ceramics G. Dwivedi*, S. Sampath, T. Nakamura	12:31 Development of ceramic heating elements produced by thermal spray technology F. Toma, S. Scheitz, R. Puschmann*, L. Berger, V. Sauchuk, M. Kusnezoff			
	11:28 Optimization of cold sprayed pure titanium coatings W. Wong*, E. Irissou, J. Legoux, S. Yue	12:03 Synthesis of porous super capacitor electrodes using the SPPS deposition technique M. Golozar*, K. Chien, K. Lian, T. Coyle	12:38 Influence of boron content on microstructure and properties of wire-arc sprayed Fe-based coating Z. Zhou*, D. He, G. Zhang, R. Li, J. Jiang, X. Li, Q. Zhao			
SULZER METCO YOUNG PROFESSIONALS AWARD						
13:05	LUNCH BREAK, EXPO HALL H					13:05
ITSC POSTER SESSION, FOYER 1 ST FLOOR						
	HALL A	HALL B 2.1	HALL B 2.2	HALL C 2.1	HALL C 2.2	
14:00	Aviation Industry 4 Session Chairmen: T. Warda / J. Wilken Highly durable thermal barrier coatings produced by axial suspension plasma spray Z. Tang*, D. Ellsworth	Plasma Spraying 2 Session Chairmen: L. Pawlowski / T. Coyle Helium-free parameter development for the TriplexPro-200 plasma gun platform C. Dambra, D. Chen*, J. Colmenares-Angulo, D. Hawley, R. Molz	Characterization & Testing 4 Session Chairmen: K. Möhwald / F. Gärtner The influence of CMAS attack on the lifetime of thermal barrier coatings T. Steinke*, M. Jarilgo, D. Mack, R. Vaßen, D. Stöver	Corrosion Protection 2 Session Chairmen: F. Schreiber / K. Ogawa Iron based wire arc sprayed coatings for chlorine containing gaseous high temperature atmospheres V. Drescher, J. Wilden*, M. Djabanbakhsh, M. Schütze, R. Durham	Pre- & Post-Treatment 3 Session Chairmen: J. Beczkowiak / B. Marple Surface modification of austenitic thermal spray coatings by low temperature carburization T. Lindner*, B. Wielage, R. Hunger	14:00
14:25	Impact of particle size distribution on the TBC coating deposition and performance L. Li*, V. Belov	Homogenization of coating properties in atmospheric plasma spraying - results and outlook of a DFG (German Research Foundation)- Funded Research Group J. Prehm*, F. Bach, J. Schein, K. Bobzin, K. Möhwald, I. Petkovi, N. Bagcivan, K. Hartz-Behrend, K. Landes	Testing and characterization methods to describe the mechanical properties of an HVOF coating sprayed with ultrafine powder materials R. Kassimi, G. Matthäus*, M. Molnar	Characterization of inconel 625 coatings deposited by cold spray A. Pontarollo*, B. Molinas, A. Cafissi, M. Guidolin, S. Vezzù, S. Rech, A. Trentin, C. Peretti	Effect of laser remelting on the mechanical behavior of inconel 625 cold sprayed coatings S. Vezzù*, S. Rech, A. Trentin, P. Poza, C. Munes, M. Garrido	14:25
14:50	Rare earth silicate coatings by sol precursor plasma spraying for environmental barrier applications A. Quet, L. Bianchi*, F. Gitzhofer, J. Leluan, F. Rebillat	Deposition of La-Sr-Fe-Co perovskite coatings with different microstructures by low pressure plasma spraying N. Zotov*, A. Hospach, G. Mauer, D. Sebold, R. Vaßen	Evaluation of young's modulus and porosity in thermally sprayed ceramic and hard metal coatings by laser acoustic surface waves (LAWave®) method M. Barbosa*, D. Schneider, R. Puschmann, F. Toma, L. Berger	Performance of HVOF and cold sprayed Ni-20Cr coatings in aggressive molten salt environment at 900°C under cyclic conditions N. Bala*, H. Singh, S. Prakash	Laser treatment of thermal sprayed NiCrBSi coating: modeling, study and characterization A. Molnar*, G. Buza, I. Felde, A. Balogh	14:50
15:15	Phase stability and thermal conductivity of plasma sprayed scandia, yttria-stabilized zirconia TBCs Q. Li, S. Gong, H. Liu, W. Yang, S. Li*	The characteristic of plasma torch designed for very low pressure plasma spraying Y. Gao*, D. Yang	Comparison of isolated indentation and grid indentation methods for HVOF sprayed cermets J. Nohava*, S. Houdkova, P. Hausild, R. Enzl	Oxidation behavior of CoNiCrAlY bond coats produced by APS, HVOF and CGDS at temperatures of 1000°C and 1100°C J. Roy*, P. Richer, B. Jodoin	Excimer laser surface treatment of plasma sprayed coatings A. Ibrahim*, C. Berndt, M. Khonsari, M. Zoghi	15:15
15:40	COFFEE BREAK, EXPO HALL H					15:40
16:00	Wear Protection 2 Session Chairmen: R. Thorpe / C. Li Wear behavior of HVOF-sprayed nanostructured WC-CoCr coatings T. Varis*, G. Bolelli, U. Kanerva, T. Suhonen, B. Bonferroni, L. Lusvarghi	Plasma Spraying 3 Session Chairmen: Y. Borisov / F. Ladru Titanium dioxide coatings sprayed by a water stabilized plasma gun (WSP) with argon and nitrogen as the powder feeding gas: differences in structural, mechanical and photocatalytic behavior P. Ctibor*, Z. Pala, K. Neufuss, V. Stengl, I. Plis, T. Zahoranova, V. Nehasil	Process Diagnostics, Sensors & Controls 2 Session Chairmen: M. Schäfer / L. Pouillot Modeling properties of HVOF thermally sprayed WC-Co coatings based on particle-in-flight characteristics B. Hussong*, W. Tillmann, N. Rudak, H. Weinert	Medical Industry 2 Session Chairmen: C. Lima / S. Costil Biocompatibility of titanium coatings deposited on CoCr by cold spray A. Trentin*, S. Vezzù, S. Rech, S. Gulizia	Corrosion Protection 3 Session Chairmen: G. Weissenfels / M. Jeandin Local corrosion protection of joints by low pressure cold spray V. Leshchynsky, E. Maeva*, D. Dzhurinsky, R. Maev	16:00
16:25	Characterization of HVOF sprayed Fe-based alloy coatings G. Bolelli, B. Bonferroni, L. Lusvarghi*, A. Milanti, K. Niemi, J. Laurila, P. Vuoristo	Zirconium and molybdenum diffusion barrier coatings for nuclear reactor fuel by thermal spray and electrospark discharge K. Hollis*	Plasma spray control design for achieving TBC production and coating quality objectives M. Gevelber*, M. Cannamela, S. DeLeo, D. Wroblewski, S. Basu, M. Tuttle, D. Radgowski	Thermal spraying of bioactive polymer coatings for orthopaedic applications A. Chebbi*, J. Podporska, J. Stokes	Pt thermal sprayed coating on refractory-bricks for glass melting Y. Ishikawa*, K. Hamashima	16:25
16:50	Microstructure and mechanical properties of 7075 Al matrix SiC reinforced composite coatings produced by the cold gas dynamic spraying process O. Meydanoglu*, B. Jodoin, E. Kayali	Reconstitution of yttria stabilised zirconia nanopowders to obtain coatings by atmospheric plasma spraying E. Sánchez*, C. Feliu, P. Carpio, R. Moreno, M. Alcazar, M. Salvador, R. Benavente, V. Bonache	Injection optimization of composite powders using laser based particle visualization D. Crawford*, R. Gansert, D. Wright	Effect of substrate temperature on the mechanical properties and dissolution of plasma sprayed wollastonite coatings W. Wang*, J. Liang, F. Xuan	Silicon carbide based plasma sprayed coatings M. Tului, B. Giambi*, G. Pulci, T. Valente	16:50



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