

Final Program: Conference & Exposition



Thermal Spray: Fostering a sustainable world for a better life!
May 10 – 12, 2016 Shanghai / P.R. China

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Organization

DVS – German Welding Society
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ITSC 2016 Venue

Shanghai International Convention Center & Oriental Riverside Hotel
 No. 2727, Riverside Avenue Pudong
 Shanghai, 200120, P.R. China
 Auditorium, Yellow River Hall, Room 3C + 3D, Room 3E, Room 3G,
 Room 3H + 3I +3J, 3rd Floor
 Mandarin Hall, Century Hall, 1st Floor



CONFERENCE

ITSC 2016

The ITSC 2016 conference is an opportunity for the global thermal spray community to meet, exchange information and conduct business. This outstanding annual event in the world of thermal spray technology presents the latest advancements in application, research and development in the field of thermal spray.

To complement the technical program, a three-day exposition featuring an Industrial Forum as well as a Poster Session will take place.

Please mark your calendar for the special ITSC 2016 events:

Opening of ITSC 2016 with Plenary

Lectures

Tuesday, May 10, 2016, 09:00, Shanghai International Convention Center, Auditorium

Kick-off ITSC 2016 Exposition and Poster Session

Tuesday, May 10, 2016, 12:00, Shanghai International Convention Center, Mandarin and Century Hall, Foyers

Exhibitor Welcome Reception and Poster Session

Tuesday, May 10, 2016, 17:40, Shanghai International Convention Center, Mandarin and Century Hall, Foyers

ITSC 2016 Networking Event

Wednesday, May 11, 2016, 18:30, Huangpu Boat Trip

Industrial Tour – SICCAS – Shanghai Institute of Ceramics, Chinese Academy of Sciences

Friday, May 13, 2016, 07:30

Awards 2016

Award Ceremony

- TSS Hall of Fame
- ITSC Best Paper Awards
- Oerlikon Metco Young Professionals Award

Tuesday, May 10, 2016, 17:00, Shanghai International Convention Center, Auditorium
All awards will be presented during this ceremony.

Presentation of JTST Best Paper Award and TSS President's Award

Wednesday, May 11, 2016, 18:30
One highlight will be the presentation of the JTST Award and the TSS President's Award.

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TIME SCHEDULE ITSC 2016 CONFERENCE AND EXPOSITION (Session Overview)

12:00 – 19:00 ITSC 2016 Exposition, Shanghai International Convention Center, Mandarin and Century Hall

Tuesday, May 10, 2016

Time	Auditorium	Yellow River Hall	Room 3E	Room 3C + 3D
09:00	Opening: ■ Welcome ■ Plenary Lectures			
10:30		Coffee Break, Shanghai International Convention Center, Foyers		
10:50	Cold Gas Spraying I	Novel Industrial Application	Process, Diagnostics, Sensors & Controls	Ceramic Coatings I
12:30		Lunch Break, Shanghai International Convention Center, Mandarin and Century Hall Poster Session, Shanghai International Convention Center, Century Hall, Foyers		
14:00	Suspension Spraying I	Wind & Offshore	New Processes I	Ceramic Coatings II
15:20		Coffee Break, Shanghai International Convention Center, Mandarin and Century Hall		
15:40		Session "Young Professionals"		
17:00		Award Ceremony: TSS Hall of Fame, ITSC Best Paper Awards and Oerlikon Metco Young Professionals Award		
17:40		End of ITSC 2016 Conference Program		
17:40		Exhibitor Welcome Reception, Shanghai International Convention Center, Mandarin and Century Hall Poster Session, Shanghai International Convention Center, Century Hall, Foyers		

09:00 – 17:00 ITSC 2016 Exposition, Shanghai International Convention Center, Mandarin and Century Hall

Wednesday, May 11, 2016

Time	Yellow River Hall	Room 3E	Room 3G	Room 3H + 3I + 3J	Room 3C + 3D
09:00	Automotive Industry	Cold Gas Spraying II	Wear Protection	Power Generation I	Industrial Forum
10:40		Coffee Break, Shanghai International Convention Center, Mandarin and Century Hall			
11:00	Aviation Industry I	Cold Gas Spraying III	Modeling & Simulation I	Power Generation – Fuel Cell I	

12:40	Lunch Break, Shanghai International Convention Center, Mandarin and Century Hall Poster Session, Shanghai International Convention Center, Century Hall, Foyers			
13:40	Aviation Industry II	Suspension Spraying II	Modeling & Simulation II	Power Generation – Fuel Cell II Industrial Forum
15:20	Coffee Break, Shanghai International Convention Center, Mandarin and Century Hall			
15:40	Aviation Industry III	Suspension Spraying III	Pre- & Post-Treatment	Arc Spraying & Laser Spraying
17:20	End of ITSC 2016 Conference Program			
18:30	Networking Event, Huangpu Boat Trip – Presentation of JTST Award and TSS President's Award			

09:00 – 14:00 ITSC 2016 Exposition, Shanghai International Convention Center, Mandarin and Century Hall

Thursday, May 12, 2016

Time	Yellow River Hall	Room 3E	Room 3G	Room 3C + 3D
09:00	Power Generation II	Characterization & Testing Methods	HVOF- / HVOF-Spraying	New Processes II
10:40	Coffee Break, Shanghai International Convention Center, Mandarin and Century Hall			
11:00	Power Generation III	Corrosion Protection	Equipment / Consumables & Powders, Wires, Suspensions	Iron-based Coatings
12:40	Lunch Break, Shanghai International Convention Center, Mandarin and Century Hall Poster Session, Shanghai International Convention Center, Century Hall, Foyers			
13:40	Power Generation IV	Medical Industry	Plasma Spraying	Amorphous Coatings
15:20	End of ITSC 2016 Conference Program			

Friday, May 13, 2016

Time	Industrial Tour			
07:30	SICCAS – Shanghai Institute of Ceramics, Chinese Academy of Sciences			

TECHNICAL PROGRAM OF ORAL PRESENTATIONS

Time	Auditorium	Yellow River Hall	Room 3E	Room 3C + 3D
09:00	<p>Opening</p> <p>Session Chair: R. Boecking</p> <p>Welcome</p> <p>Plenary Lectures:</p> <p>Advances in plasma sprayed ceramic coatings at Shanghai Institute of Ceramics, Chinese Academy of Sciences S. Tao</p> <p>The development of the China auto market and its significance for the BMW Group A. Gollwitzer</p>			
10:30	<p>Coffee Break Shanghai International Convention Center, Foyers</p>			
	<p>Cold Gas Spraying I</p> <p>Session Chairs: J. Villafuerte, W. Krömmer</p>	<p>Novel Industrial Application</p> <p>Session Chairs: A. Wank, J. Jerzembeck</p>	<p>Process Diagnostics, Sensors & Controls</p> <p>Session Chairs: J. Schaup, K. Khor</p>	<p>Ceramic Coatings I</p> <p>Session Chairs: W. Tillmann, C. Wu</p>
10:50	<p>Analytical evaluation of temperature distribution within a substrate under an impinging compressed hot air jet A. Mahdavi*, A. McDonald</p>	<p>Anti-icing behavior of thermally sprayed polymer coatings H. Koivuluoto*, C. Stenroos, M. Kylmälahti, P. Vuoristo</p>	<p>Improved reliability and specific design of plasma spray processes G. Mauer*, K. Rauwald, R. Vaßen</p>	<p>Synthesis and thermophysical properties of Gd₂Zr₂O₇/SrZrO₃ composite as a thermal barrier coating material W. Ma*, L. Cai, H. Dong, Y. Bai, Y. Yin, X. Li</p>
11:10	<p>Microstructural characteristics of cold sprayed titanium P. King*, M. Glenn, S. Gulizia</p>	<p>Fabrication of three-dimensional electrodes by atmospheric plasma spray and high velocity oxy-fuel processes for alkaline water electrolysis M. Aghasibeig*, C. Moreau, R. Wuthrich, A. Dolatabadi</p>	<p>Particle in-flight velocity and dispersion measurements at increased particle feed rates in cold spray M. Meyer*, S. Yin, R. Lupoi</p>	<p>Heat-shock properties on Y2O3 films synthesized with metal ethylenediamine tetraacetic acid complex K. Komatsu*, D. Enkin, K. Abe, T. Kosuta, Y. Ikeda, A. Nakamura, S. Ohshio, H. Saitoh</p>
11:30	<p>Substrate effect in cold spraying H. Assadi*, M. Villa-Vidaller, Z. Arabgol, F. Gärtner, T. Klassen</p>	<p>Material and process pairing for improved performance J. Girgulis*, O. Sabouni, S. Malcus, J. Gutleber</p>	<p>Gas and particle investigations during wire arc spraying process M. Szulc, A. Atzberger*, S. Kirner, K. Hartz-Behrend, S. Zimmermann, J. Schein, J. Zierhut, W. Mayr, W. Krömmer</p>	<p>Super-hydrophobic surface prepared by lanthanide oxide ceramics deposition through PS-PVD process C. Li, J. Li*, Q. Chen, S. Zhang, X. Luo, G. Yang, C. Li</p>

Time	Auditorium	Yellow River Hall	Room 3E	Room 3C + 3D
11:50	<p>Cold spray of agglomerated submicronic hydroxyapatite powders for biomedical applications V. Guipont*, D. Moreau, L. Corté, F. Borit</p>	<p>Superior thermal spray coatings replacing former solutions in paper machinery H. Jungklaus*, A. Etschmaier</p>	<p>Online size measurement of micron-sized in-flight glass particles in APS and SPS processes A. Akbarnozari*, S. Amiri, F. Ben-Ettouil, A. Dolatabadi, C. Moreau</p>	<p>ZrB₂-based coatings by plasma spraying: Behavior under oxidizing and corrosive atmosphere at temperature exceeding 2000°C A. Quet*, C. Barré, L. Bianchi, C. Sanchez, C. Zeppa</p>
12:10	<p>High deposition efficacy additive manufacturing of titanium using nitrogen cold spray D. MacDonald*, R. Fernández, B. Jodoin</p>	<p>Investigation of influencing factors on the transplantation of wire arc sprayed Zn coatings for the metallization of plastic parts X. Liao*, K. Bobzin, M. Öte, T. Linke, C. Hopmann, P. Ochotta</p>	<p>Effect of spray kinetic parameters on coating properties in a shrouded plasma spraying process T. Liu*, Y. Ma, L. Zheng, G. Zhang, H. Zhang</p>	<p>Microstructure and thermal properties of atmospheric plasma sprayed Yb₂Si₂O₇ coatings K. Li, Z. Xin*, N. Yaran, H. Liping, L. Hong, Z. Xuebin, D. Chuanxian, S. Jinliang</p>
12:30	<p>Lunch Break, Shanghai International Convention Center, Mandarin and Century Hall Poster Session, Shanghai International Convention Center, Century Hall</p>			
	<p>Suspension Spraying I Session Chairs: C. Moreau, L. Leblanc</p>	<p>Wind & Offshore Session Chairs: K. Bobzin, L. Pouliot</p>	<p>New Processes I Session Chairs: T. Coyle, L. Zhao</p>	<p>Ceramic Coatings II Session Chairs: M. Dorfman, A. McDonald</p>
14:00	<p>Characterization of the deposition formation dynamics of suspension plasma spray coatings using in-situ coating property measurements R. Chidambaram Seshadri, S. Sampath*</p>	<p>Long-term marine exposure test of HVOF sprayed 316L stainless steel and hastelloy C-276 coatings S. Kuroda*, J. Kawakita, T. Fukushima, M. Komatsu, H. Araki</p>	<p>Production rate improvement in liquid fuel HVOF spraying by modified powder injection concepts A. Wank, T. Schläfer*</p>	<p>Investigation of columnar structured hydroxyapatite coating deposited by micro-plasma spray Y. Wang*, T. Fan, X. Liu, Z. Zhou, D. He</p>
14:20	<p>Comparison of SFS, SPS and HVSFS for the production of photocatalytic titania coatings B. Robinson, A. Tabecki, I. Parkin, S. Shi*, S. Paul, J. Darr, H. de Villiers Lovelock</p>	<p>Thermal sprayed electrical insulation for highly demanding bearing applications N. Bagcivan*, B. Müller, Y. Musayev</p>	<p>A hybrid thermal spray and sinter fusion process to apply wear and corrosion resistant coatings M. Yao*, H. Belhadjhamida, D. Lee, J. Zheng</p>	<p>Transition mechanism in flattening of plasma sprayed ceramic particles M. Fukumoto*, N. Maeda, B. Wei, D. Suzuki</p>
14:40	<p>Influence of particle size and spray parameters on formation of dense yttria coatings by suspension plasma spraying J. Kitamura, K. Fujimori*, J. Liu, B. Callen, T. Wada</p>	<p>Improved corrosion resistance and electrical insulation behavior of plasma sprayed alumina coatings treated by inorganic sealant F. Shao*, H. Zhao, K. Yang, C. Liu, S. Tao</p>	<p>Coatings deposited using a valveless detonation gun system R. Gansert, R. Bamola*, P. Robinson, T. Ewell</p>	<p>Manufacturing technology of tribologically highly charged ceramic coatings on CFRP components S. Popa*, P. Weichand, R. Gadow</p>
15:00	<p>Suspension plasma spray - how suspension properties and spray parameters influence coating possibilities N. Curry*</p>	<p>Corrosion performance of damaged thermally sprayed aluminium in simulated deep sea environment S. Paul*</p>	<p>Plasma spraying of fine ceramic powder with a 6-kW rf induction plasma torch K. Shinoda*, M. Mori, T. Saeki, S. Akedo</p>	<p>Evolution of microstructure and properties of plasma sprayed YSZ constrained by substrate with different thermal expansion coefficient during thermal exposure G. Li*, G. Yang, C. Li, C. Li</p>
15:20	<p>Coffee Break Shanghai International Convention Center, Mandarin and Century Hall</p>			

“Young Professionals”

Session Chairs: K. Bobzin, E. Turunen

Time	Auditorium	Time	Auditorium	
Each presentation 5 minutes!	<p>Start 15:40</p> <p>Formation mechanism analysis of solution precursor plasma sprayed hydroxyapatite coatings R. Candidato*, L. Pawlowski, C. Constantinescu, B. Pateyron, A. Denoirjean</p> <p>Warm spraying of high strength Ni-Al-Bronze for cavitation protection S. Krebs*, S. Frede, H. Araki, H. Katanoda, F. Gaertner, S. Kuroda, T. Klassen</p> <p>In-flight particle diagnostics and control for the production of thermally sprayed babbitt coatings A. Nascimento*, F. Ben Ettouil, C. Moreau, S. Savoie, R. Schulz</p> <p>TGO formation and failure mode of TBC systems comprising PVD-AIO_x interlayers I. Ali*, D. Wett, T. Grund, D. Nestler, G. Wagner, T. Lampke</p> <p>Three dimensional reconstruction of plasma sprayed Ni-20Cr on alumina A. Wang*, A. Tran, M. Hyland, P. Munroe</p> <p>Pulsed current investigations and effects of the wire arc spraying process A. Atzberger*, M. Szulc, S. Kirner, S. Zimmermann, G. Huismann, G. Forster, J. Schein</p> <p>Microstructure and thermal conductivity of Fe-based amorphous coatings prepared by HVOF thermal spraying L. Wang*, Z. Zhou, H. Yao, Y. Wang, X. Wu, D. He</p> <p>Characterisation of thermally sprayed ZnAl15 corrosion protection coatings for offshore-wind-turbines M. Knoch*, K. Bobzin, M. Öte, T. Linke</p> <p>Spray parameter effect on HVOF sprayed chromium carbide based hardmetal coatings V. Matikainen*, K. Khanlari, A. Milanti, H. Koivuluoto, P. Vuoristo</p>	Each presentation 5 minutes!	<p>Plasma spray manufacturing high-performance electrodes and electrolyte membranes for intermediate temperature solid oxide fuel cells C. Li, S. Zhang*, C. Li, G. Yang</p> <p>Fluid dynamics and modelling of plasma jet in PS-PVD process P. Wang*, R. Mücke, W. He, G. Mauer, R. Vaßen</p> <p>Cold spray onto carbon fiber reinforced polymers for lightning strike protection H. Che*, S. Yue, P. Vo</p> <p>Nature inspired damage tolerant thermal spray materials and coatings G. Smith*, M. Resnick, G. Dwivedi, S. Sampath</p> <p>Bi-layer thermal spray coatings: A critical approach to extend the service-life of metallic components E. Sadeghimeresht*, N. Markocsan, P. Nylén, S. Björklund</p>	<p>17:00</p> <p>Award Ceremony:</p> <ul style="list-style-type: none"> ■ TSS Hall of Fame ■ ITSC Best Paper Awards ■ Oerlikon Metco Young Professionals Award
				<p>17:40</p> <p>End of ITSC 2016 Conference Program</p>
				<p>17:40</p> <p>Exhibitor Welcome Reception, Shanghai International Convention Center, Mandarin and Century Hall</p> <p>Poster Session, Shanghai International Convention Center, Century Hall</p>



Time	Yellow River Hall	Room 3E	Room 3G	Room 3H + 3I + 3J	Room 3C + 3D
	Automotive Industry Session Chairs: T. Linke, R. Bolot	Cold Gas Spraying II Session Chairs: I. Garcia Cano, F. Gärtner	Wear Protection Session Chairs: M. Planche, S. Oki	Power Generation I Session Chairs: S. Tao, N. Bagcivan	Industrial Forum I Session Chair: W. Krömmner
09:00	Application of cold spraying for contact reactive brazing of Mg alloy to steel H. Li*, H. Nie, W. Long, Z. Chen	Microstructure and mechanical properties of cold sprayed Ni-Al₂O₃ coatings W. Zórawski*, A. Góral, M. Makrenek, S. Kowalski	Fractal analysis of wear debris for plasma sprayed MoS₂/Ni-SiC-Y solid self-lubricant coatings X. Yuan*, B. Zha, Z. Yu	Thermal stability of sub-micro structured YSZ coatings deposited by APS and SPS M. Zhai*, J. Yang, X. Zhong, H. Zhao, C. Liu, S. Tao	Advanced high pressure cold spray equipment developments & performances P. Richter*
09:20	Superlight ball bearings of CFK embedded thermally sprayed coatings B. Hussong, W. Tillmann, C. Schaak*	Evaluation of high temperature oxidation behavior of a cold spray Ni-20Cr nano-structured coating M. Kumar, H. Singh*, N. Singh, S. Joshi, N. Chavan, S. Kumar	New hardfacing material with high impact wear resistance S. Bengtsson*, S. Dizdar, B. Maroli, L. Bagueette	Hot corrosion behavior of suspension plasma sprayed multilayer Gd₂Zr₂O₇/YSZ thermal barrier coatings K. Jonnalagadda*, S. Mahade, X. Li, N. Markocsan, S. Björklund, N. Curry, P. Nylén, R. Peng	Advancements in HVOF and Plasma processes for gas turbine coating applications R. Gansert*
09:40	The effect of thermal barrier coating on a direct injection diesel engine fueled with a ternary fuel mixture K. Gr*	Deposition of thick copper cold spray coatings on steel for used nuclear fuel repository using nitrogen and pulsed waterjet surface preparation R. Fernandez*, D. MacDonald, A. Nastic, B. Jodoin, M. Vijay, A. Tieu	Computational multiscale material tailoring of WC-based thermal spray coatings T. Suhonen*, T. Andersson, A. Laukkanen, T. Pinomaa, M. Sippola	Plasma spraying of liquid feedstocks with hybrid-water stabilized plasma technology R. Musalek*, J. Medricky, J. Kotlan, T. Tesar, F. Lukac, Z. Pala, T. Chraska	Oerlikon Metco surface solutions Toolbox - advanced technologies creating quickwins in daily operation A. Bachmann*
10:00	Integration of a thermal spray process into the GROB production line for passenger car aluminum engine blocks of combustion engines into mass production B. Gand*, A. Woerfel, H. Saule, C. Moerz	The reactivity enhancement depending on the microstructure evolution in kinetic spraying and arrested reactive milling of Al-Ni particles S. Lee*, J. Kim, C. Lee	Laser treatment of HVOF thermal sprayed nano-structured WC-12Co mixed with inconel-625 coatings for wear applications J. Stokes*, N. Al Harbi, K. Benyounis, L. Looney	Thermal fatigue failure of thermal barrier coatings with a high-Cr MCrAlY bond coat K. Yuan*, Y. Yu, K. Jonnalagadda, R. Lin Peng, X. Li, J. Shen, X. Ji	Efficiency improvement in thermal spray processes A. Wank*, K. Nassenstein
10:20	Investigation of amorphous iron based thermal barrier coatings T. Königstein*, K. Bobzin, M. Öte, T. Linke	Effect of gas pressure on interfacial bonding features of the cold sprayed Ni coatings on Al substrate Y. Xie, M. Planche*, R. Raelison, P. Herve, C. Verdy, H. Liao	A new type high-performance thermal spray powder with WB reinforcement X. Song, Y. Xie, Y. Luo*, H. Wang, L. Xie, Y. Yang, B. Liu	High entropy alloy coatings for application as bond coating for thermal barrier coating systems R. Bhattacharya, O. Senkov, A. Rai, X. Ma*, P. Ruggiero	Ethanol fueled HVOF technology - The eGun™ T system M. Zwetsloot*
10:40	Coffee Break Shanghai International Convention Center, Mandarin and Century Hall				

Time	Yellow River Hall	Room 3E	Room 3G	Room 3H + 3I + 3J	Room 3C + 3D
	Aviation Industry I Session Chairs: M. Oechsner, R. Vaßen	Cold Gas Spraying III Session Chairs: A. Dolatabadi, P. Richter	Modeling & Simulation I Session Chairs: M. Öte, A. Vardelle	Power Generation – Fuel Cell I Session Chairs: T. Lampke, D. Stöver	
11:00	Influence of bond coat structures on the lifetime of suspension sprayed thermal barrier coatings during thermo-cycling R. Trache, K. Assan, F. Toma, D. Eichner, C. Leyens*	Study of the properties of cold sprayed In718 deposits H. Renzhong, H. Fukanuma, R. Huang*	Phase field modeling of rapid solidification in WC-Co coating deposition T. Pinomaa*, T. Andersson, A. Laukkanen, N. Provas	Suspension plasma sprayed ceramic coatings for various emerging applications Z. Tang*	
11:20	Advances in the restoration of the Al-clad layer on aircraft skin by cold spray J. Villafuerte*, B. Jodoin, M. Yandouzi	Influences on coating quality in cold spraying F. Gärtner*, M. Villa-Vidaller, S. Krebs, H. Gutzmann, H. Assadi, T. Klassen	Implementing the equation of state to account for the density variation at the inlet boundaries for high velocity oxy fuel process M. Aldosari*, K. Benyounis, J. Stokes	Combining atmospheric plasma spraying (APS) and plasma spray-physical vapor deposition (PS-PVD) to manufacture metal supported solid oxide fuel cell assemblies D. Marciano*, R. Vaßen, G. Mauer, A. Weber	
11:40	New investigation on the high temperature capability limits of APS YSZ TBCs at ~1500oC: Preliminary thermal gradient laser-rig testing results R. Lima*, B. Marple	Comparison of diamond-reinforced composite coating with different feedstock by cold spraying S. Yin*, R. Lupoi	Modeling of thermal spray coating profile based on experimental study on operating parameters effects H. Liao*, C. Chen, Y. Xie, S. Deng, C. Verdy	High-performance porous metal supported solid oxide fuel cells fabricated at low temperature by optimized plasma spraying C. Li, S. Zhang*, C. Li, G. Yang	
12:00	Thermal and mechanical properties of novel lanthanum zirconate based thermal barrier coatings L. Li*, X. Guo, Z. Lu, J. Knapp, Y. Jung, J. Zhang	Effect of content and type of reinforcing particles on the hardness and wear rate of low-pressure cold sprayed TiC and B₄C-based metal matrix composite coatings R. Lee*, H. Ashrafizadeh, G. Fisher, A. McDonald	Three-dimensional modeling of arc voltage fluctuations in suspension plasma spraying E. Dalir*, C. Moreau, A. Dolatabadi	Cold gas sprayed coatings for photocatalytic water splitting M. Villa-Vidaller*, F. Gärtner, A. Rzeszutek, T. Klassen	
12:20	Practical surface solutions for thermal barrier turbine coating applications M. Gindrat*, M. Dorfman, C. Dambra, S. Wilson, R. Rocchio-Heller, O. Sabouni	Influence of phosphorus and tin content on various characteristics of cold sprayed copper coatings Y. Yamauchi*, S. Miyaji, M. Akabayashi, S. Hirano, N. Aikawa, R. Tanaka, T. Hanamachi	Modeling of the droplet detachment from a molten wire in arc plasma spraying Y. Shan*, W. Liu, Z. Yuan	High performance electrolyte of solid oxide fuel cells deposited by PS-PVD C. Li, J. Gao*, S. Zhang, X. Luo, G. Yang, C. Li	
12:40	Lunch Break, Shanghai International Convention Center, Mandarin and Century Hall Poster Session, Shanghai International Convention Center, Century Hall				

Time	Yellow River Hall	Room 3E	Room 3G	Room 3H + 3I + 3J	Room 3C + 3D
	Aviation Industry II Session Chairs: R. Schmid, D. Puerta	Suspension Spraying II Session Chairs: P. Sokolowski, T. Schläfer	Modeling & Simulation II Session Chairs: P. Sampath, H. Assadi	Power Generation – Fuel Cell II Session Chairs: C. Coddet, M. Thoma	Industrial Forum II Session Chair: W. Krömmner
13:40	Thermally sprayed Al-Mn coatings for wet corrosion protection as alternative to cadmium P. Masset*	Erosion behavior of multilayered thermal barrier coatings deposited by suspension plasma spray S. Mahade, N. Curry, S. Björklund, N. Markocsan*, P. Nylén, R. Vaßen	Thermal conductivity in suspension sprayed thermal barrier coatings: Modeling and experiments M. Gupta, C. Kumara, P. Nylén, A. Ganvir*	Protective coatings for SOFCs deposited using different plasma spray techniques F. Bozza*, N. Antolotti, M. Thoma, E. Ghidini, L. Tagliaferri	Increasing quality & efficiency through integration of sensors in thermal spray operations L. Pouliot*
14:00	Effects of substrate roughness and spray angle on deposition behavior of cold sprayed inconel 718 for repair of aero engine components R. Singh*, K. Rauwald, G. Mauer, S. Schrufer, A. Barth, S. Wilson, R. Vaßen	Microstructural control on yttria stabilized zirconia coatings by suspension plasma spraying J. Kitamura*, K. Fujimori, J. Liu, B. Callen, T. Wada	The main issues to address in modeling plasma spray torch operation A. Vardelle, C. Chazelas, J. Trelles, M. Vardelle*	LPC - novel process for the production of photocatalytic surfaces B. Robinson, A. Tabecki, P. Carmichael, I. Parkin, G. Shi*, S. Paul, J. Darr, H. de Villiers Lovelock	Sealing of thermal spray coatings efficient corrosion protection and more? C. Kunde*
14:20	Viscous wetting of volcanic ash relevant to jet engine interaction W. Song*, Y. Lavallée, K. Hess, U. Kueppers, C. Cimarrelli, D. Dingwell	Microstructure formed by axial suspension plasma spraying: From YSZ splat to coating D. Li*, J. Feng, H. Zhao, C. Liu, L. Zhang, F. Shao, Y. Zhao, S. Tao	Finite element simulation of the impact of cold sprayed metallic glass particles G. Bolelli*, J. Henao, A. Concustell, I. Garcia Cano, L. Lusvarghi	Improving atmospheric plasma sprayed electrolyte layers of solid oxide fuel cells by use of a powder separator T. Liu*, J. Arnold	TBC plasma spraying on blades & vanes with proplasma gun D. Billières*
14:40	Effect of chemical surface treatment of polymer composites on the formation of erosion-resistant coatings A. Elrikh, S. Goutier*, A. Vardelle, G. Armstrong	Tribology and nano-indentation study of suspension HVOF thermal sprayed alumina coatings T. Hussain*, E. Shaw, A. Siao Ming Ang, Z. Pala, F. Xu	Modeling multi-arc plasma spraying M. Öte*, K. Bobzin	Characterization of vacuum cold sprayed LSGM electrolyte of solid oxide fuel cells sintering at different temperature C. Li, L. Wang*, X. Luo, S. Zhang, G. Yang, C. Li	Superior thermal spray powder for industrial application C. Wang*
15:00	Investigating the durability and icing performance of suspension plasma sprayed superhydrophobic coatings N. Sharifi*, M. Pugh, C. Moreau, A. Dolatabadi	Investigation of the corrosion, wear and erosion performances of HVOF-Cr₂O₃ sprayed coatings obtained from aqueous suspensions F. Toma*, A. Potthoff, S. Makowski, D. Eichner, C. Leyens	Modeling of the arc in a DC plasma torch: including the electrodes in the calculation domain R. Bolot*, A. Allimant, D. Billières	Thermal plasma synthesis of Mg-Ni nano-particles T. Öztürk*, B. Aktekin	The importance of dust collection for thermal spray processes F. Theisen*
15:20	Coffee Break Shanghai International Convention Center, Mandarin and Century Hall				

Time	Yellow River Hall	Room 3E	Room 3G	Room 3H + 3I + 3J	Room 3C + 3D
	Aviation Industry III Session Chairs: R. Lima, H. Guo	Suspension Spraying III Session Chairs: P. Vuoristo, C. Li	Pre- & Post-Treatment Session Chairs: G. Bolelli, G. Mauer	Arc Spraying & Laser Spraying Session Chairs: C. Lima, R. Gansert	
15:40	Influence of microstructure on thermo-cyclic fatigue and thermal shock resistance of axial suspension plasma sprayed thermal barrier coatings A. Ganvir*, N. Markocsan, Z. Pala	Effects of in-flight change of properties on suspension plasma spraying A. Farrokhpahanah*, T. Coyle, J. Mostaghimi	Substrate preparation & thermal spray coating performance - a review G. Kaushal*, A. Sachpreet Singh	Closed-loop control tools for automated laser cladding processes A. Wank*, F. Beck, J. Zierhut, K. Kloiber	
16:00	Isothermal and cyclic oxidation of cold sprayed NiCoCrAlTaY coating on CMSX-4 superalloys D. Guo, B. Jodoin, L. Zhao, M. Yandouzi, M. Yandouzi, R. Fernández*	Opportunities of twin-cathode system as new suspension plasma spray system M. Shahien*, M. Suzuki	Wear behavior of post-treated arc sprayed cermet coatings by means of hammer peening L. Hagen*, W. Tillmann	Effect of traverse speed on residual stress distribution and cavitation erosion behavior of arc sprayed aluminum bronze coatings M. Hauer*, S. Krebs, W. Krömmner, K. Henkel	
16:20	Investigations on the nature of ceramic deposits in plasma spray-physical vapor deposition W. He*, G. Mauer, R. Vaßen, O. Guillon, M. Gindrat, R. Wäger	Thermal nano-particle spraying to create ceramic layers with nano-composite structures S. Kirihara*, K. Nonaka	The influence of heat treatment presence and sequence on oxidation resistance of YSZ thermal barrier coatings A. Akhmetgareeva*, S. Baldaev, I. Mazilin, L. Baldaev, T. Il'inkova	Cause study to the occurrence of unmelted wire pieces during wire arc spraying W. Mayr*, E. Steiner, S. Heilmeier, A. Atzberger, S. Kirner, K. Hartz-Behrend, S. Zimmermann, J. Schein, M. Szulc	
16:40	Analysis of the high cyclic lifetime of yttria-stabilized zirconia columnar suspension plasma sprayed coatings B. Bernard*, L. Bianchi, A. Joulia, A. Malié, B. Rémy	Fracture characteristics of high-velocity suspension flame sprayed aluminum oxide coatings J. Killakoski*, A. Lutoschkin, P. Müller, M. Apostol, H. Koivuluoto, A. Killinger, P. Vuoristo	Effect of pre- and post-processes on cold spray coating properties P. Koh*, H. Ng, P. Cheang, K. Loke	Alternative industrial surface solutions P. Nielsen*, S. Nielsen	
17:00	Cold spray of metal-polymer composite coatings onto carbon fiber-reinforced polymer (CFRP) V. Bortolussi*, F. Borit, V. Guipont, M. Jeandin, M. Faessel, B. Figliuzzi, F. Willot, K. Roche, A. Chesnaud	Thermal cycling behavior of suspension plasma sprayed yttria partially-stabilized zirconia thick thermal barrier coating X. Zhong*, F. Shao, H. Zhao, J. Ni, C. Liu, S. Tao, C. Ding	Effect of sandblasting pre-treatment and heat input of APS process on property of low-temperature soldered joint of tempered glass to steel H. Li*, H. Teng, W. Tillmann	Simultaneously spraying of different wires by twin wire arc spraying using adapted air-caps and shroud effect M. Abdulgader*, W. Tillmann, D. Bezerra	
17:20	End of ITSC 2016 Conference Program				
18:30	Networking Event, Huangpu Boat Trip – Presentation of JTST Best Papers Award and TSS President's Award				

Time	Yellow River Hall	Room 3E	Room 3G	Room 3C + 3D
	Power Generation II Session Chairs: M. Nestler, F. Toma	Characterization & Testing Methods Session Chairs: M. Knoch, R. Musalek	HVOF- / HVAF-Spraying Session Chairs: J. Mostaghimi, A. Verstak	New Processes II Session Chairs: S. Zimmermann, S. Popa
09:00	Microstructure of the coatings deposited by low pressure plasma spray with nano-agglomerated YSZ feedstock Y. Gao*	Flexure strength of metal mesh reinforced ceramic matrix composite fabricated using plasma spray method X. Huang*, T. Mohammadi	Microstructure and performance of WC-10Co-4Cr coating with ultrafine / nano-crystalline structures W. Xuezheng*, W. Haibin, S. Xiaoyan, L. Xuemei, Y. Deqiang, Y. Tao	Characterization of YSZ Coatings Deposited by Conventional DC and CO₂/CH₄ Plasma Torches H. Salimijazi, J. Mostaghimi, L. Pershin*
09:20	An investigation on the optimization, reliability and repeatability assessment of plasma spray coatings deposited using twin opposing injectors K. Park*, R. Seshadri, S. Sampath, B. Yang, I. Kim	Stress analysis and failure mechanisms of plasma sprayed thermal barrier coatings through spectroscopy technique J. Yang*, L. Wang, D. Li, X. Zhong, H. Zhao, S. Tao	Performance of HVOF sprayed Ni-20 Cr+1%Zr Coating in Na₂SO₄-60%V₂O₅ environment at 900°C G. Kaushal*, H. Singh, S. Prakash	High-velocity spray deposition of WC cermets by an air-oxygen controlled combustion process M. Parco*, I. Fagoaga, G. Barykin, C. Vaquero Gonzalez
09:40	Preparation and properties of Cr₃C₂-25NiCr thermal spraying powders and coatings with nano-sized, micro-sized and bimodal structure S. Wang, S. Wang*, Q. Wang, H. Xie, X. Liao, Y. Zhou, F. Liu, C. Liu, S. Liao	The evaluation of mechanical properties of suspension plasma sprayed zirconia coatings having various microstructures P. Sokolowski*, A. Mejias, D. Chicot, R. Musalek, P. Nysten, L. Pawlowski	Effects of powder structures and HVOF processes on erosion wear performance of WC-10Co4Cr coatings Z. Ding, X. Ding, X. Cheng*, J. Shi	An in-situ cooling solution for thermal spray coating process T. Bao*, R. Ghosh, J. Wu, F. Qin, L. He
10:00	Effect of neodymia, samaria and yttria co-doping on the phase stability, thermal conductivity and long-term performance of the zirconia-based thermal barrier coatings I. Mazilin*, N. Zaitsev, L. Baldaev, E. Marchukov, D. Drobot	Influence of powder characteristics on the microstructure and bond strength of cold sprayed aluminum coating P. Leger*, F. Borit, N. Fabregue, M. Jeandin, D. Maurice	Process simulation in HVOF qualification and optimization L. Zeng*, B. Ramsey	The new design of the D-gun to increase performance and optimization of the coating process A. Rigin*, S. Mankovsky
10:20	Thermal cycling behavior of quasi-columnar YSZ coatings deposited by PS-PVD S. Tao*, F. Shao, H. Zhao, C. Liu, Y. Zhuang, J. Ni, X. Zhong	Residual stresses measurement in plasma sprayed TBCs with cold sprayed bond coats by photoluminescence piezospectroscopy C. Lima*, D. Clarke, S. Dosta, J. Guilemany	Modeling of the injection of suspension sprays into two-stage HVOF process Y. Shan*, P. Ren, F. Gong	Performance and economic characteristics of multi-chamber detonation sprayer using in the thermal spray technology J. Jia, Y. Tyurin, M. Kovaleva, N. Vasilik, V. Kolisnichenko, M. Prozorova, M. Arseenko*, V. Sirota
10:40	Coffee Break Shanghai International Convention Center, Mandarin and Century Hall			

Time	Yellow River Hall	Room 3E	Room 3G	Room 3C + 3D
	Power Generation III Session Chairs: M. Gindrat, C. Leyens	Corrosion Protection Session Chairs: S. Kuroda, K. Laul	Equipment / Consumables & Powders, Wires, Suspensions Session Chairs: A. Bachmann, M. Fukumoto	Iron-based Coatings Session Chairs: H. Jungklaus, T. Königstein
11:00	Comparison of suspension plasma sprayed TBCs produced with different types of injection R. Vaßen*, D. Zhang, N. Schlegel, G. Mauer, D. Mack	Performance of HVOF sprayed Ni based coating on T22 steel in actual boiler environment N. Bala*, N. Badwal, H. Singh, S. Prakash	From nano-particles to nano-structured thermal spray coatings Y. Wang*, S. Liu, X. Li, C. Wang	Microstructure and thermal conductivity of wire-arc sprayed FeCrNbBSi coatings Z. Qian*, Z. Zhou, H. Yao, X. Wu, Y. Wang, D. He
11:20	Suspension plasma spraying of TBCs on industrial gas turbine parts F. Bozza*, N. Antolotti, M. Thoma, E. Ghidini, L. Tagliaferri	Surface pre-treatment requirements for thermally sprayed corrosion protection coatings in offshore wind energy plants M. Knoch*, M. Öte, K. Bobzin	Structural and phase state of the material between the ceramic layer and the metallic substrate formed by high-speed jet of powder J. Jia, M. Prozorova, Y. Tyurin, M. Kovaleva, J. Jia, N. Vasilik, O. Kolisnichenko, M. Arseenko*, I. Pavlenko	Microstructure and thermal conductivity of Fe-based amorphous coatings prepared by HVOF thermal spraying L. Wang*, Z. Zhou, H. Yao, Y. Wang, X. Wu, D. He
11:40	Vacuum plasma coating systems (LPCS, VPS, Hybrid) for plasma spraying of gas turbine components for applications throughout Asia R. Gansert*, R. Herber, D. Lazzeri, S. Keller	Performance of thermally sprayed corrosion resistant alloy (CRA) coatings on carbon steel in supercritical CO₂ environments at different temperatures S. Paul*	Characterization of WC-Co coating modified by nano-sized TiC addition using electron microscopy methods H. Myalska*, G. Moskal, R. Swadzba, J. Wiedermann	Influence of gas composition on cold gas spray of iron aluminides N. Cinca, A. Concustell, S. Dosta*, I. Cano, J. Guilemany
12:00	Influence of Ce and Ru on the behavior of HVOF NiCoCrAlX coatings in high temperature oxidation P. Zhang*, R. Lin Peng, X. Li, S. Johansson	Thermally sprayed coatings for ultrasupercritical steam power plants F. Bozza, N. Antolotti, M. Thoma, E. Ghidini, L. Tagliaferri*	Preparing nano-structural WC-Co coatings by utilizing novel powder manufacturing route T. Suhonen*, U. Kanerva, M. Karhu, J. Lagerbom, T. Vuorinen, T. Laitinen, E. Turunen	Highly economical Fe-based protective coating system by novel material design and full utilization of the atomized powder L. Zhao*, K. Bobzin, M. Öte, T. Linke
12:20	The correlation of the TBC lifetimes in thermal gradient thermal cycling test and isothermal cycling test by TGO effects C. Li*, H. Ding, H. Dong, G. Yang	High-temperature protective performance of LT-HVOF sprayed TiAl₃-Al coating for Ti-6Al-4V alloy substrate C. Deng*, M. Liu, W. Yang, J. Zhang, C. Deng, K. Zhou	An Investigation of the corrosion and fouling resistance of ZnNi/Cr₂O₃-TiO₂-CuO/PTFE composite ceramic coatings Q. Li*, X. Cheng, Q. Zhang, W. Ye, J. Min, J. Min, S. Peng	Fe-based powder alloys deposited by HVOF and HVOF for sliding wear applications S. Dizdar*
12:40	Lunch Break, Shanghai International Convention Center, Mandarin and Century Hall Poster Session, Shanghai International Convention Center, Century Hall			

Time	Yellow River Hall	Room 3E	Room 3G	Room 3C + 3D
	Power Generation IV Session Chairs: F. Bozza, X. Zhang	Medical Industry Session Chairs: V. Guipont, M. Parco	Plasma Spraying Session Chairs: S. Dosta, T. Suhonen	Amorphous Coatings Session Chairs: L. Hagen, X. Song
13:40	TGO formation and failure mode of TBC systems comprising PVD-AIO_x inter-layers I. Ali*, D. Wett, T. Grund, D. Nestler, G. Wagner, T. Lampke	Refining nano-topographical features on bone implant surfaces by altering surface chemical compositions G. Wang*, X. Zhao, H. Zreiqat	Nature inspired damage tolerant thermal spray materials and coatings G. Smith*, M. Resnick, G. Dwivedi, S. Sampath	Simulated deep-sea corrosion behaviors of Fe-based amorphous coatings C. Zhang*, Z. Zhang, W. Wang, L. Liu
14:00	High-performance thermal barrier coatings deposited by high-efficiency supersonic atmospheric plasma spraying Y. Bai*, Y. Wang, L. Zhao, K. Liu, J. Tang, Y. Kang	CeO₂ incorporated calcium silicate coatings protect MC3T3-E1 osteoblastic cells from H₂O₂-induced oxidative stress K. Li*, L. Kai, X. Youtao, H. Liping, Z. Xuebin	Comparison of ZrB₂-Mo-Si₂ composite coatings fabricated by atmospheric and vacuum plasma spray processes K. Li, N. Yaran*, W. Zhong, L. Hong, Z. Xuebin, S. Jinliang, D. Chuanxian	Preparation of thermal spray coatings of Ni-based amorphous alloy with a high-corrosion resistance and ductility K. Amiya*, T. Morimoto, R. Kurahashi
14:20	Influence of diode laser glazing on the microstructure and properties of the APS thermal barrier coatings N. Zaitsev*, I. Mazilin, L. Baldaev, Y. Novinkin, E. Marchukov, V. Ovchinnikov	Synergy effects of Sr and Si ions from Sr-doped calcium silicate coatings on stimulation of osteogenesis K. Li, H. Dandan*, L. Kai, X. Youtao, H. Liping, Z. Xuebin	Plasma sprayed composite coatings for severe conditions in nuclear power plants A. Werry, A. Vardelle, A. Denoirjean*, S. Valette, C. Chazelas, E. Meillot	Improvement of bonding strength and impact resistance of Fe-based amorphous coatings by structure modifications L. Liu*, C. Zhang
14:40	Understanding of the mechanism of excellent thermal stability of single-phase b-(Ni,Pt) Al bond coat during cyclic oxidation by experimental and theoretical study H. Chen*, L. Ye, G. Yang, Y. Gao, H. Luo, B. Liu	Synergistic effect of macro/nano-topography on cytoskeletal distribution leading to improved cell differentiation through ROCK-related signaling pathway K. Li, H. Pan*, Y. Xie, X. Zheng, T. Tang	Microstructure and mechanical property of Al₂O₃/YAG wear-resistant composite coating deposited by atmospheric plasma spraying K. Yang*, J. Rong, C. Liu, S. Tao, C. Ding	Wear and corrosion resistant Al-based metallic glass coatings by cold gas spray S. Dosta, J. Henao, A. Concustell, I. Garcia Cano*, N. Cinca, J. Guilemany, T. Suhonen
15:00	Comparative investigation of mechanical properties of thermal barrier coatings made by atmospheric plasma spraying and suspension plasma spraying M. Gizynski *, X. Chen, M. Watanabe, H. Araki, S. Kuroda, Z. Pakiela	Strategies to develop bio-coating materials for new-generation of bone substitutes K. Li, X. Zheng*	Evaporation enhancement at very low pressure by modifying the nozzle for conventional 80 kW plasma spray system C. Li, Q. Chen*, C. Li, G. Yang	Enhancement of wear, impact and corrosion resistance of Fe based amorphous coatings by the addition of alumina particles M. Yasir*, L. Liu, Z. Cheng, W. Wang, P. Xu
15:20	End of ITSC 2016 Conference Program			



POSTER SESSION / INDUSTRIAL FORUM

Poster Session

During the ITSC 2016 event a Poster Session will be held.

Poster Session during the Exhibitor Welcome Reception

Tuesday, May 10, 2016, 17:40, Shanghai International Convention Center, Century Hall, Foyers

The poster presenters will be available for discussion in the Century Hall scheduled as follows:

Tuesday, May 10, 2016, 12:30 – 14:00 (17:40 – 19:00 during the Exhibitor Welcome Reception)

Wednesday, May 11, 2016, 12:40 – 13:40

Thursday, May 12, 2016, 12:40 – 13:40

In addition further contacts with the authors can be arranged.

Industrial Forum

The Industrial Forum will take part during ITSC 2016 in the Shanghai International Convention Center, Room 3C + 3D. Invited companies will present on industry related topics and products during conference and exposition hours. All presentations are given in English and are limited to 20 minutes including question & answer (Q&A). Beside the ITSC conference registrants, also all Expo only attendees are invited to visit the Industrial Forum.

Forum Hours:

Wednesday, May 11, 2016, 09:00 – 10:40, 13:40 – 15:20 (see page 13, 15)

Applications – Automotive Industry

1. **High temperature corrosion of selected thermally sprayed coatings deposited by HVOF technology**
Z. Cesanek*, J. Schubert, V. Matikainen, H. Koivuluoto, P. Vuoristo
2. **Influence of heat treatment methods on mechanical and tribological properties of thermally sprayed NiCrBSi based coating**
J. Schubert, Z. Cesanek*, S. Houdkova

Applications – Aviation Industry

3. **Influence of multiple guide vane geometry on characteristics of TBCs deposited by PS-PVD method**
J. Mao*, L. Min, C. Deng, C. Deng, Z. Deng, K. Zhou
4. **Microstructure and ablation properties of mullite/ZrB₂-SiC coating for carbon/carbon composite by atmospheric plasma spraying**
W. Han*, M. Liu, D. Zeng, C. Deng
5. **Plasma jet characterization of PS-PVD with different diagnostic methods**
Z. Deng*, M. Liu, J. Mao

Applications – General Plant Engineering

6. **Effect of acid corrosion on the luminescence intensity of plasma sprayed YAG:Ce³⁺ coatings**
W. Wang*, P. Zeng, H. Wang, J. Yu, L. Wu
7. **Sulfidation behavior of plasma sprayed Al-Mo coatings in high temperature**
W. Wang*, L. Wu, J. Yu, J. Huang
8. **Microstructure and bonding strength of detonation sprayed WC10Co4Cr coatings**
Y. Gao*, Y. Hou

Applications – Medical Industry

9. **Corrosion testing of hydroxyapatite and hydroxyapatite silicon oxide coated titanium**
G. Singh*, H. Singh, B. Singh
10. **Fabrication and characterization of graphene oxide/ fluorhydroxyapatite composite materials for biomedical applications**
Y. Bai*, J. Gao, Y. Bai, W. Ma

11. **Preparation and characteristics of patterned titanium coating deposited by plasma spraying**
K. Li, X. Youtao*, S. Yunqi, Z. Xuebin
12. **Plasma sprayed coatings for bone replacement with anti-microbial properties**
H. Testrich*, A. Quade, A. Kruth, U. Schnabel, K. Fricke, M. Fröhlich, K. Weltmann, M. Polak
13. **In vitro study of the bioactivity and biocompatibility of titanium and titanium/bioglass coatings**
X. Huang*, S. Bsat, B. De Snoo
14. **Influence of HA microstructure on layer build-up coatings by cold spray**
S. Dosta*, A. Martin, N. Cinca, A. Concustell, I. Cano, J. Guilemany
15. **Plasma sprayed bioceramic coatings on polymer orthopedic implants**
L. Barillas*, J. Cubero-Sesin, T. Guillen-Giron

Applications – Metals Processing

16. **Numerical simulation on plasma flow and interaction of plasma jet and particle**
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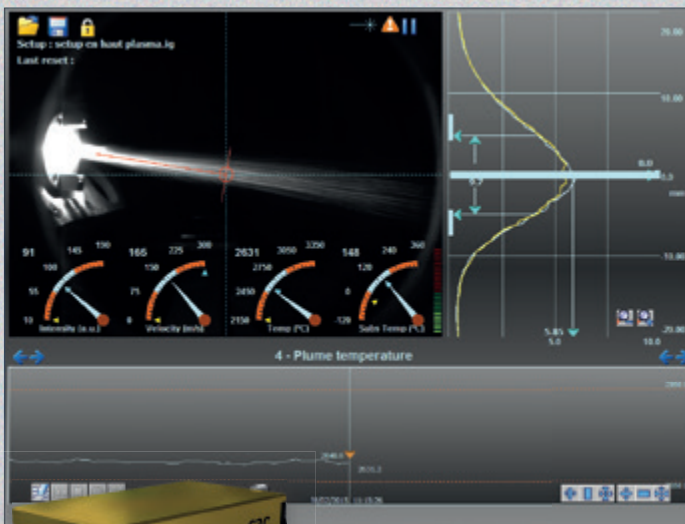
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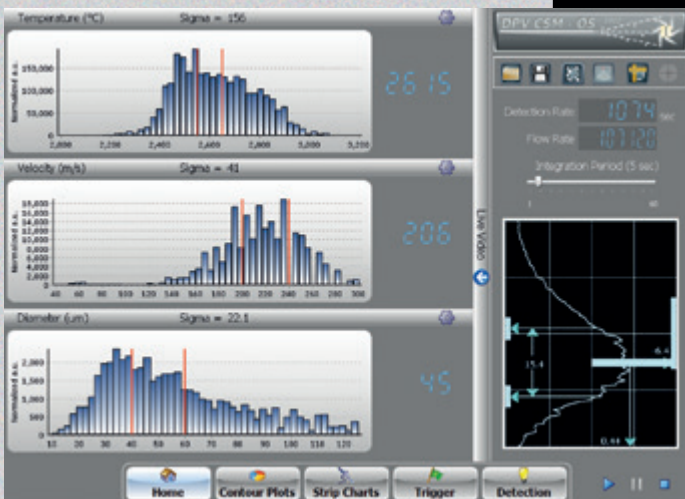
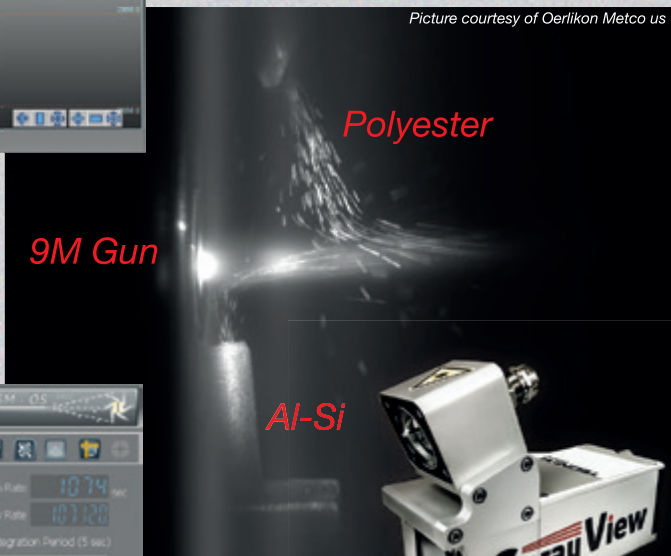


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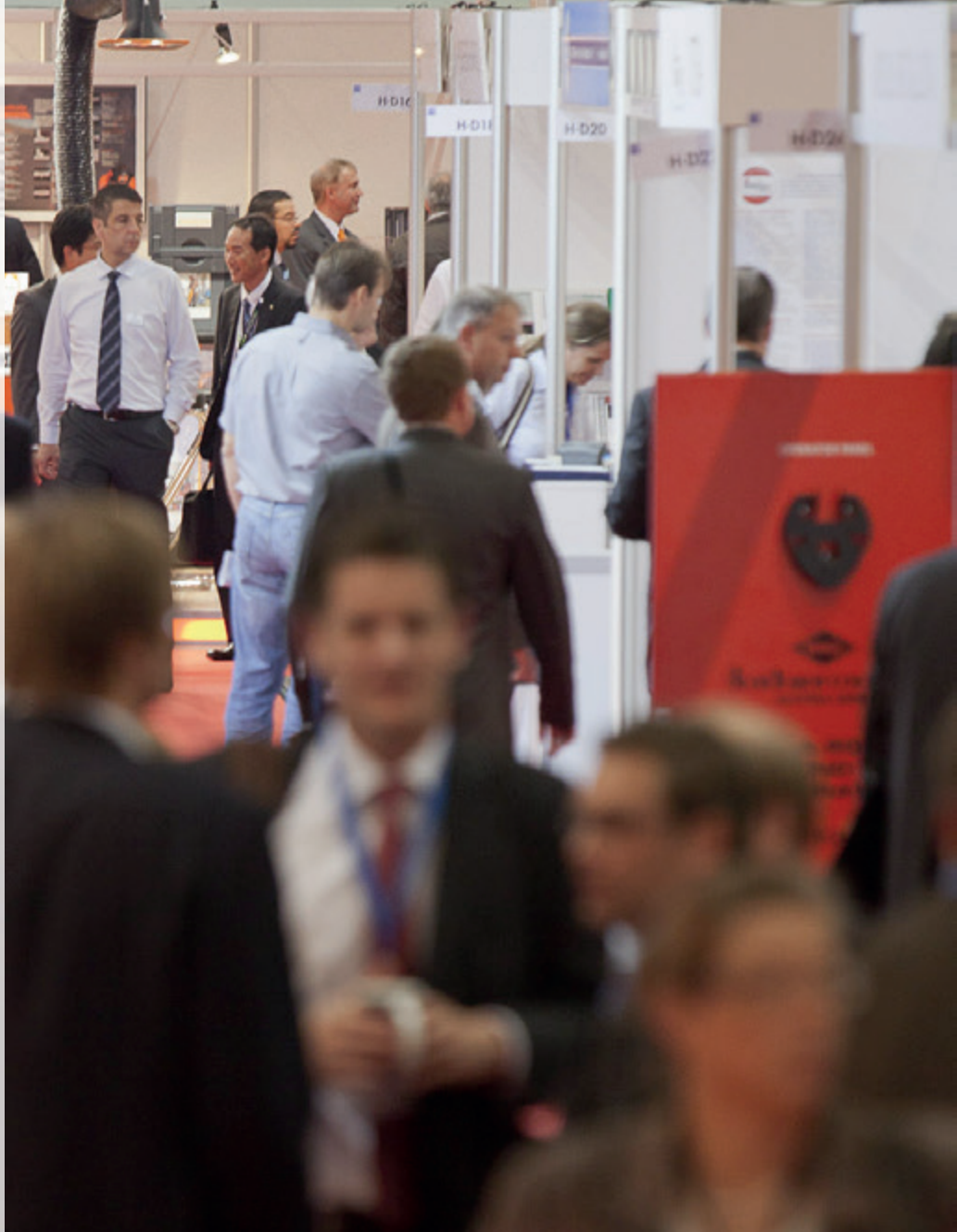
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EXPOSITION

Concurrent with the conference, the ITSC 2016 Exposition, organized by ASM International, will take place in the Shanghai International Convention Center, Mandarin and Century Hall.

Kick-off ITSC 2016 Exposition

Tuesday, May 10, 2016, 12:00, Shanghai International Convention Center, Mandarin and Century Hall

Exhibitor Welcome Reception

Tuesday, May 10, 2016, 17:40, Shanghai International Convention Center, Mandarin and Century Hall

Exposition Hours

Tuesday, May 10, 2016, 12:00 – 19:00

Wednesday, May 11, 2016, 09:00 – 17:00

Thursday, May 12, 2016, 09:00 – 14:00

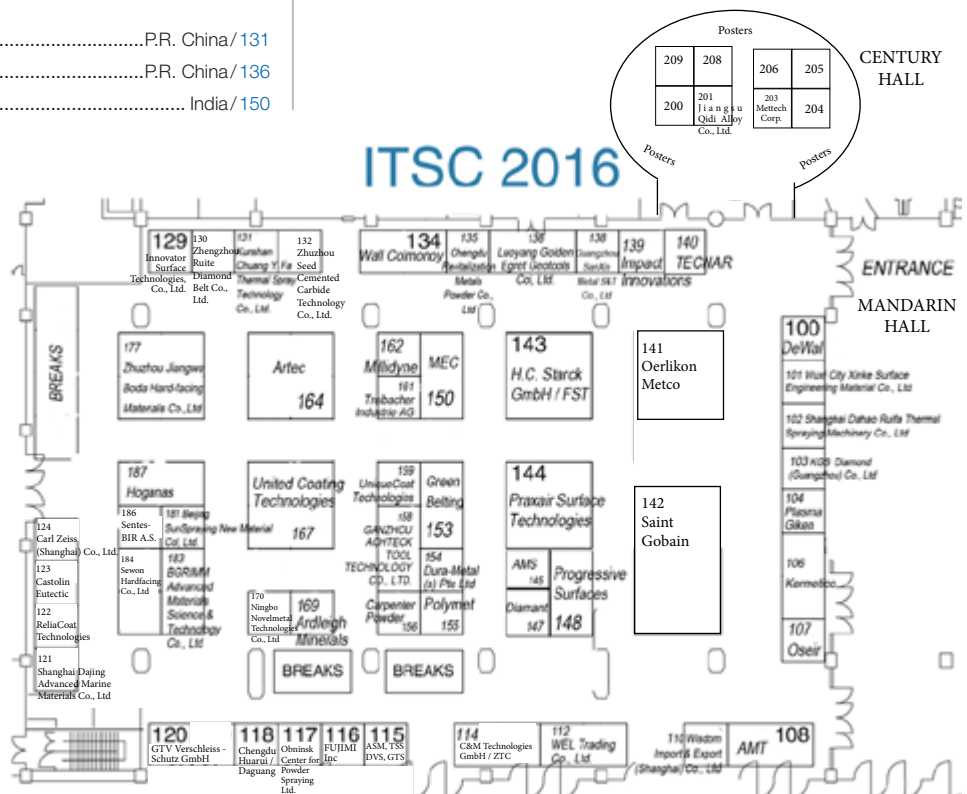
Expo Only

Tickets are free of charge.

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Booth # 158

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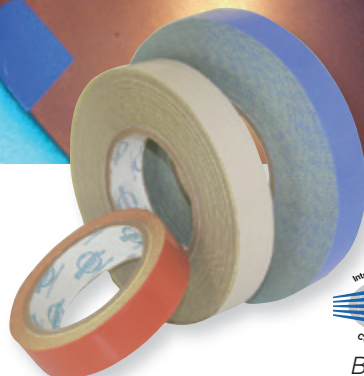
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www.mettech.com

Millidyne

Booth # 162

Millidyne offers customized high performance materials for advanced coatings. For thermal spraying Millidyne provides Neoxid ceramic powders, MDS sealers and Dyrel non-stick coating resins. Suspensions for suspension spraying are also offered along with customer based materials development. Many of our products benefit from nanotechnology.

www.millidyne.fi

Ningbo Novelmetal Technologies Co., Ltd.

Booth # 170

Utilizing state-of-the-art processes such as Supersonic Air-Fuel Spraying, Plasma Transferred Arc Welding and Twin-Wire Arc Spraying, Ningbo Novelmetal Technologies produces advanced amorphous alloys and carbides coatings to help extend the life of components in corrosive and abrasive environments. We are certified ISO 9001 and meet Customer quality audits. in construction

Obninsk Center for Powder Spraying Ltd.

Booth #117

www.dymet.net

Oerlikon Metco

Booth # 141

Oerlikon Metco enhances surfaces through a uniquely broad range of surface technologies, equipment, materials, services and components. Our surface technologies such as Thermal Spray and Laser Cladding improve performance and increase efficiency and reliability in a variety of industries through our growing network of more than 40 sites in EMEA, Americas and Asia Pacific.

www.oerlikon.com/metco

Oseir Oy

Booth # 107

Oseir Ltd. is specializing in particle diagnostics using special CCD-cameras and lasers and proprietary SprayWatch and OsiRec image processing software to extract any significant data in all thermal spray processes as well as other processes where solid particles, liquid droplets and/or bubbles are present.

www.oseir.com

Plasma Giken Co., Ltd.

Booth # 104

Plasma Giken Co., Ltd. established in 1980 offers Cold Spray system with high quality as well as metal surface modification with Thermal Spray & machining, and designing Thermal Spray production line & sales of its system.

www.plasma.co.jp/en

Polymet Corporation

Booth # 155

Polymet Corporation is a world-class manufacturer of high performance wire for welding, hardfacing, and thermal spraying. Polymet's high quality wire products are used in aerospace, power generation, lumber, mining, and many other industries.

www.polymet.us

Praxair Surface Technologies Inc.

Booth # 114

Praxair Surface Technologies offers a complete line of materials and equipment for thermal spray as well as materials for Additive Manufacturing. The extensive product line includes carbide, metallic and ceramic powders, wires, and spare parts, complemented by TAFE brand plasma, HVOF, arc spray equipment, powder feeders, and ancillary products.

www.praxairsurfacetechologies.com

Progressive Surface, Inc.

Booth # 148

Progressive Surface designs and builds integrated thermal spray systems and surface treatment equipment. We build turnkey systems for conventional plasma, HVOF, combustion and our 100HE High Enthalpy plasma. The 100HE is exceptional at spraying standard plasma coatings as well as suspension plasma spray (SPS) and solution precursor (SPSS) coatings.

www.progressivesurface.com

ReliaCoat Technologies

Booth # 122

ReliaCoat Technologies is introducing advanced process monitoring sensors, developing advanced software tools, and responding to existing and emerging needs in TS industries with scientifically-rooted solutions and innovations. The goal is to transfer advance concepts of monitoring TS coating properties with in-situ strategies to extract design-relevant properties within thermal spray booth.

www.reliacoat.com

Saint-Gobain

Booth # 142

Saint-Gobain is a world class manufacturer of equipment, consumables and masking tapes for the thermal spray industry. We offer a complete line of ceramic powders, Rokide(R) rods, flexible cords, EB-PVD ingots, tapes (HVOF and thermal spray), flame spray and plasma spray equipment. Come see our products at booth #142.

www.coatingsolutions.saint-gobain.com

Sentes-BIR A.S.

Booth # 186

www.sentes-bir.com/fortecoat

Sewon Hardfacing Co., Ltd./Changzhou Sewon Metal Products Co., Ltd.

Booth # 184

Sewon Hardfacing in South Korea and China focuses on competitive Thermal spraying powders/Service/Coating system & Solution provider. Yttria, Al₂O₃, YSZ Looking for High Purity & High Flowability leads High productivity & Cost-effective thermal spray powders as well? Please consult with Sewon's Strategy Powder Team www.sewon-hf.com and visit to ITSC 2016, China Booth #184

www.sewon-hf.com

Shanghai Dahao Ruifa Thermal Spraying Machinery Co., Ltd

Booth # 102

Shanghai Dahao Ruifa Thermal Spraying Machinery Co., Ltd was established in 1949, with a history of more than sixty years, it has created a precedent for the thermal spraying industry of China. The company invested a total of more than RMB 56000000, has advanced spraying equipment, and will be committed to coating services.

www.rf-pt.com

Shanghai Dajing Advanced Marine Materials Co., Ltd

Booth # 121

www.dajingoc.com

TECNAR Automation Ltd

Booth # 140

TECNAR is the world leader in the field of advanced sensors for thermal & cold spray processes. Our portfolio covers all the range of applications from fundamental R&D to shop floor monitoring. Our flagship sensors are the DPV & Accuraspray. Please visit www.tecnar.com or email thermalspray.Sales@tecnar.com for more information.

www.tecnar.com

Treibacher Industrie AG

Booth # 161

Treibacher Industrie AG is a global advanced raw material producer with over 120-years of history in chemical and metallurgical innovation. Treibacher is a leading developer and industrial producer of a wide range of engineered ceramic powders; many of which are available as spray powder or suspensions for Suspension Plasma Spray.

www.treibacher.com

UniqueCoat Technologies, LLC

Booth # 159

UniqueCoat Technologies produces state of the art HVOF equipment. Spray guns are specialized for ID and OD applications. ID applications start at 60 mm. Product lines include hand held and robot mounted spray guns. Other products include powder feeders, fuel delivery systems, twin wire arc, and fully integrated spray booths.

www.uniquecoat.com

United Coatings Technologies

Booth # 167

UCT is the manufacture of thermal spray system, peripheral components, automation, and material in

China. Under one roof, UCT also provides coating services through its three plants in China.
www.united-coatings.com

Wall Colmonoy
Booth # 134

For over 75 years, Wall Colmonoy is a global leader in the manufacture and application of surfacing powders. COLMONOY® and WALLEX™ specially formulated alloys extend the useful life of engineered components for Glass Container, Power Gen, Oil & Gas, and Transportation industries. Applied by Laser, PTA, HVOF, and Spray-N-Fuse.
www.wallcolmonoy.com

WEL Trading Co., Ltd.
Booth # 112
www.welcn.com

Wisdom Import & Export (Shanghai) Co., Ltd.
Booth # 110
 Wisdom has more than 20-year experiences in hardfacing welding, thermal spray alloy products, which widely apply to chemical, metallurgy mechanism, glass, ceramic, and home appliance industries.

ries. „Quality and credit standing“ is the life of our company while „Research and innovation“ is the life line for survival.
www.wisdomsurface.com

Wuxi City Xinke Surface Engineering Material Co., Ltd.

Booth # 101
 Wuxi City Xinke Surface Engineering Material Co., Ltd., founded in 1995, owns completely independent intellectual property rights and has specialized in the production and sales of WC&Mo spraying powders for over 20 years. Up to now our products have found a good sale in eight countries and regions.
www.wxxinke.com

Zhengzhou Ruite Diamond Belt Co., Ltd.
Booth # 130

Since 2003, RUIITE is the leading professional manufacturer of super-hard coated abrasives in China, specialized in developing and manufacturing diamond & CBN belts, diamond flap discs, diamond quick-change discs, diamond mounted wheels and diamond hand pads, which are mainly used for both grinding and polishing Ceramics, Thermal Spraying,

Glass, Tungsten carbide, Composite materials, etc.
www.ruite-abrasives.com

Zhuzhou Jiangwu Boda Hard-facing Materials Co., Ltd.

Booth # 177
 Zhuzhou BODA specialized in manufacturing hardfacing and thermal spray powders in China since 1993. The main thermal spray powders include WC Co Cr, WC Co, NiCr-Cr3C2, WC Ni, Pure Moly, and other customized grades. The hardfacing materials include cast tungsten carbide powder, spherical tungsten, chrome carbide, vanadium carbide, tantalum carbide, etc.
www.bodamaterials.com

Zhuzhou Seed Cemented Carbide Technology Co. Ltd.

Booth # 132
www.seed-carbide.com



INTRODUCING ADVANCED HVOF GUNS



MJP - 6000®

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- # Compatible to run with existing kerosene systems.
- # No limit of bore depth.
- # Porosity upto 0.5% achivable.



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- # Quad powder port for dual powder feed setup (eg. bond coat & top coat without switching connection).



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Carbide powder feed tubes





METALLIZING EQUIPMENT CO. PVT. LTD.

www.mecpl.com (INDIA)

*Visit us at booth No. 150

EXHIBITOR PRODUCT CATEGORIES

AUXILIARY THERMAL SPRAY EQUIPMENT

Air Compressors

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UniqueCoat Technologies, LLC	159
United Coatings Technologies	167

THERMAL SPRAY FINISHING

Finishing Equipment

Guangzhou Sanxin Metal S&T Co., LTD.	138
Metallizing Equipment Co. Pvt. Ltd.	150
Shanghai Dahao Ruifa Thermal Spraying Machinery Co., Ltd.	102
Zhengzhou Ruite Diamond Belt Co., Ltd.	130

Finishing Tools/Grinding Wheels

Guangzhou Sanxin Metal S&T Co., LTD.	138
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Diamant Metallplastic GmbH	147
GTV Verschleißschutz GmbH	119
Guangzhou Sanxin Metal S&T Co., LTD.	138
Metallizing Equipment Co. Pvt. Ltd.	150
Millidyne	162
Oerlikon Metco	141
Shanghai Dahao Ruifa Thermal Spraying Machinery Co., Ltd.	102
United Coatings Technologies	167

THERMAL SPRAY PROCESS SUPPLIES

Carbide Powders

Achteck Tool Technology CO., LTD.	158
C&M Technologies GmbH	114
Castolin Eutectic	123
Chengdu Huarui Industrial Co., Ltd.	118
Chengdu Revitalization Metals Powder Co., Ltd.	135
Flame Spray Technologies B.V.	143
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H.C. Starck / Flame Spray Technologies / WEL Trading	143
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Wuxi City Xinke Surface Engineering Material Co., Ltd.	101
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Ceramic Rods

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Saint-Gobain	142
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Chengdu Huarui Industrial Co., Ltd. 118

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GTV Verschleißschutz GmbH 119
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Metallizing Equipment Co. Pvt. Ltd. 150
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Other Powders

C&M Technologies GmbH 114
Chengdu Huarui Industrial Co., Ltd. 118
Chengdu Revitalization Metals Powder Co., Ltd. 135
Flame Spray Technologies B.V. 143
GTV Verschleißschutz GmbH 119
H.C. Starck / Flame Spray Technologies / WEL Trading 143
Höganäs 187
Metallizing Equipment Co. Pvt. Ltd. 150
Millidyne 162
Oerlikon Metco 141
Praxair Surface Technologies Inc. 114
Shanghai Dahao Ruifa Thermal Spraying Machinery Co., Ltd. 102
United Coatings Technologies 167
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Chengdu Revitalization Metals Powder Co., Ltd. 135
Flame Spray Technologies B.V. 143
GTV Verschleißschutz GmbH 119
Guangzhou Sanxin Metal S&T Co., LTD. 138
Höganäs 187
Metallizing Equipment Co. Pvt. Ltd. 150
Oerlikon Metco 141
Praxair Surface Technologies Inc. 114
Shanghai Dahao Ruifa Thermal Spraying Machinery Co., Ltd. 102
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Wires

Ningbo Novelmetal Technologies Co., Ltd. 170
Castolin Eutectic 123
Chengdu Huarui Industrial Co., Ltd. 118
Flame Spray Technologies B.V. 143
GTV Verschleißschutz GmbH 119

Guangzhou Sanxin Metal S&T Co., LTD. 138
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Metallizing Equipment Co. Pvt. Ltd. 150
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Wisdom Import & Export (Shanghai) Co., Ltd. 110

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Kunshan Chuang Yi Fa Thermal Spray Technology Co., Ltd. 132
Oerlikon Metco 141

Water and Cleaning Systems

Guangzhou Sanxin Metal S&T Co., LTD. 138

TRADE ASSOCIATIONS/PROFESSIONAL SOCIETIES

Other Trade Associations/Professional

Guangzhou Sanxin Metal S&T Co., LTD. 138
Shanghai Dahao Ruifa Thermal Spraying Machinery Co., Ltd. 102

Societies

Guangzhou Sanxin Metal S&T Co., LTD. 138



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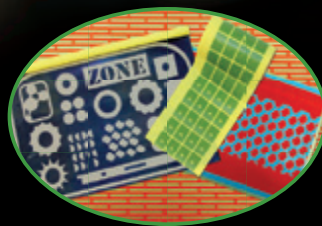


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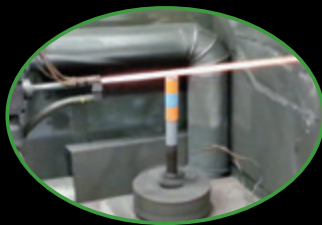
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