

SDMA 2013	Monday morning, September 23, 2013	
	Building GW2 - Room 2890	Building GW2 - Room 2900
08:30	Registration	
09:20	<p style="text-align: center;">Conference Introduction <u>K. Rezwan</u> Vice Rector for Research and Young Academics</p>	
09:30	<p style="text-align: center;">Keynote Selected Diagnostic Methods for Thermal Spray Processing <u>S. Zimmermann</u> Chair: L. Mädler</p>	
10:15	<i>Coffee Break</i>	
	Thermal Spraying Chair: P. Grant	Spray Forming: Light Metals I Chair: A. Schulz
10:30	<p>A-182 Recent Developments and Limitations in Cold Spraying. <u>T. Klassen, F. Gärtner, H. Assadi</u></p>	<p>A-145 Microstructure and Elevated Temperature Mechanical Properties of Al-8Fe-4Re alloy Fabricated by Spray Forming. <u>H. Lei, P.F. Yan, Y. Zhang, B. Yan,</u></p>
10:55	<p>A-170 Cold Spraying of Cu-Al-Bronze for Cavitation Protection in Marine Environments. <u>S. Krebs, F. Gaertner, T. Klassen</u></p>	<p>A-200 Microstructure of an 7050 alloy processed by spray forming followed by hot extrusion and rotary swaging. <u>A.P.B. Guerra, N. Ellendt, V. Uhlenwinkel, C. Bolfarini</u></p>
11:20	<p>A-121 Cryo-Gas Cooling Method and System for Thermal Spray Coatings. <u>M. Akuh, G. Plicht, Z. Zurecki, L. Mercado</u></p>	<p>A-154 Recycling of AA 7050-T7451 machining chips by spray forming and thermo mechanical processing. <u>A. Hyodo, C. Bolfarini</u></p>
11:45	<p><i>Conference photo</i> <i>Meeting point: Registration</i></p>	
12:00	<i>Lunch Break</i>	

SDMA 2013	Monday afternoon, September 23, 2013	
	Building GW2 - Room 2890	Building GW2 - Room 2900
	Process Development I Chair: C. Bolfarini	Spray Forming: Light Metals II Chair: P. Krug
13:00	A-160 High Yield Spray Forming of Small Diameter Tubes using Pressure-Gas-Atomization. <i>N. Ellendt, V. Uhlenwinkel, L. Mädler</i>	A-171 Development of low melting point filler materials for laser beam brazing of aluminum alloys. <i>C. Cui, A. Schulz, L. Achelis, V. Uhlenwinkel, H. Leopold, V. Piwek, Z. Tang, T. Seefeld</i>
13:25	A-118 Hot forming tool generated via co-spray forming of composite material. <i>O. Grohmann, C. Meyer, A. Schulz, V. Uhlenwinkel, C. Heinzl</i>	A-146 The natural aging behavior of super-high strengths aluminum alloys by spray forming. <i>G. Zhang</i>
13:50	A-120 Spray forming of rings with a twin atomizer setup. <i>C. Meyer, N. Ellendt, L. Mädler, H.R. Müller, W.T. Carter, V. Uhlenwinkel</i>	A-179 Effect of Cu and Mg on the wear properties of spray formed Al-22Si alloy. <i>G.M. Dayanand, K. Raju, V.C. Srivastava, G.B. Rudrakshi</i>
14:15	A-218 Industrial scaled DISPAL and HOLESTA alloys via spray forming by PEAK Werkstoff GmbH, Germany <i>B. Commandeur, C. Ferguson, G. Sinha</i>	A-193 Development of bulk icosahedral quasicrystalline materials by spray forming. <i>V.C. Srivastava, E. Huttunen-Saarivirta, C. Cui, A. Schulz, N.K. Mukhopadhyay, V. Uhlenwinkel</i>
14:40	<i>Coffee Break</i>	
	Bulk Metallic Glasses Chair: J. Cornelius	Spray Forming: Light Metals III Chair: A. Ogilvy
15:00	Keynote: A-194 Synthesis of Bulk Amorphous and Nanocrystalline Materials by Spray Forming. <i>V.C. Srivastava, N. Ellendt, C. Meyer, V. Uhlenwinkel</i>	A-137 Wear behavior of secondary processed spray formed Al-28Si-5Cu-4Mg alloy <i>Raju, K., Goudar, D., Srivastava, V., Rudrakshi, G.</i>
15:25	A-180 Spray Forming of Iron based [(Fe _{0.6} Co _{0.4}) _{0.75} B _{0.2} Si _{0.05}] ₉₆ Nb ₄ glass forming alloy. <i>R.D. Cava, V. Uhlenwinkel, C. Bolfarini, N. Ellendt, R.F.M. Santos</i>	A- 139 Elevated temperature Al-8Cr-1.5Fe alloy produced by new rapid solidification technology. <i>O. Neikov, A. Sharovskiy, V. Zhoga</i>
15:50	A-221 Determination of amorphous fraction and kinetic properties of a [(Fe _{0.6} Co _{0.4}) _{0.75} B _{0.2} Si _{0.05}] ₉₆ Nb ₄ glassy powder generated by various atomization techniques. <i>N. Ciftci, N. Ellendt, R. von Bargen, H. Henein, V. Uhlenwinkel, L. Mädler</i>	A-176 Microstructure evolution of AA7050 alloy recycled by spray forming. <i>E. Marchezini Mazzer, C.R. Moreira Afonso, C. Bolfarini, C. Shyinti Kiminami</i>
16:15	<i>Welcome Reception in the IW 1+2</i>	
17:15	<i>Meeting of DGM Group "Spray Forming" Room GW2 B2680</i>	

SDMA 2013	Tuesday morning, September 24, 2013	
	Building GW2 - Room 2890	Building GW2 - Room 2900
08:30	<p align="center">Keynote</p> <p>Nozzle design concepts for gas atomization of molten metal and alloys with enhanced particle size control <u>I. Anderson</u> Chair: U. Fritsching</p>	
	<p align="center">Atomization I</p> <p align="center">Chair: S. Chandra</p>	<p align="center">Spray Forming: Heavy Metals I</p> <p align="center">Chair: S.-P. Hannula</p>
09:20	A-198 Cooling Rates During Close-Coupled Gas Atomization. <u>T. Bigg, A. Mullis, R. Cochrane, N. Adkins</u>	A-189 Microstructural investigation of D2 tool steel spray deposits. <u>P. Delshad Khatibi, H. Henein</u>
09:45	A-173 Effect of Process Parameters on Powder Quality. <u>D. Schwenck, N. Ellendt, J. Fischer-Bühner, P. Hofmann, L. Mädler, V. Uhlenwinkel</u>	A-141 Bearing steels with high cleanliness produced by spray forming. <u>A. Schulz, W. Trojahn, C. Meyer, V. Uhlenwinkel</u>
10:10	A-197 Lick Back in Close-Coupled Atomization: A Phenomenological Study. <u>J. Strauss</u>	A-119 Spray forming of high density sheets. <u>C. Meyer, L. Mädler, N. Ellendt, H.R. Müller, F. Reimer, V. Uhlenwinkel</u>
10:35	A-125 Rapid Solidified Characterization of 10V Die Steels Powders. <u>Z. Gao, Z. Li, G. Zhang</u>	A-122 High strain rate superplasticity in spray formed ultrahigh carbon steels. <u>J. Zhang, Y. Lin, X. Wang, J. Wang</u>
11:00	Coffee Break	
	<p align="center">Atomization II</p> <p align="center">Chair: I. Anderson</p>	<p align="center">Spray Forming: Heavy Metals II</p> <p align="center">Chair: L. Achelis</p>
11:15	A-190 Investigations on using online measurement devices on a drop tube-impulse system. <u>P. Delshad Khatibi, H. Henein</u>	A-151 Microstructures and High Temperature Properties of Spray Formed Nb-containing M3 High Speed Steel. <u>H. Wang, J. Zhang, L. Lu, L. Hou, H. Cui, J. Huang, J. Zhang</u>
11:40	A-129 Dependence of morphology, structure and particle size distributions of the water atomized aluminum powders on the water jet pressure and melt temperature. <u>O. Neikov, G. Vasilieva, A. Sameljuk, V. Tokhtuyev</u>	A-172 Effect of boron addition on wear behavior of spray-formed supermartensitic stainless steel. <u>G. Zepon, C.S. Kiminami, W.J. Botta Filho, C. Bolfarini</u>
12:05	A-220 Spray propagation in confined spray processes with twin-fluid atomization. <u>A. Lampa, U. Fritsching</u>	A-159 Wear resistance behavior of different spray-formed iron-based alloys. <u>A.R.C. Nascimento, G. Zepon, C.S. Kiminami, W.J. Botta, C. Bolfarini</u>

12:30	A-222 Modeling Liquid Nuclear Fuel Fragmentation and Dispersion during a Serve Nuclear Incident <i>S. Castrillo-Escobar, R. Meignen, M. Gradeck, N. Rimbert</i>	A-135 Development of graded tool steels via spray forming for micro cold forming <i>C. Cui, A. Schulz, V. Uhlenwinkel</i>
SDMA 2013	Tuesday afternoon, September 24, 2013	
	Building GW2 - Room 2890	Building GW2 - Room 2900
12:55	Lunch Break	Lunch Break Meeting of DGM Group EK MPE (Mensa Club)
	Modeling & Simulation Chair: N. Ellendt	Spray Forming: Heavy Metals III Chair: H. Henein
14:00	A-186 Modeling and Simulation of PVP/Water Spray Flows and Drying in an Eulerian Framework. <i>S.R. Gopireddy, E. Gutheil</i>	A-195 Manufacture of Ni superalloy IN617 using a hybrid arc spray forming technique. <i>A. Sato, M. Taneike, I. Okada, P. Grant</i>
14:25	A-138 CFD Modeling of Ceramic Particle Penetration into Metallic Droplet in Spray Process. <i>X. Li, U. Fritsching</i>	A-216 Research on Hot compressive deformation behavior of Spray Formed Superalloy LSHR. <i>C.C. Ge, J. Wang, C.L. Jia, B. Guo, M. Xia, T.T. Wang, H.K. Zeng, Y.C. Zhang, H. Wu</i>
14:50	A-140 Numerical Study on Droplet Generation and Deposition of A Drop-on-Demand Solder Droplet Print Head. <i>S. Gao, C. Zheng, Y. Yao</i>	A-217 Research on Metallurgical Quality and Mechanical Properties of Spray Formed Superalloy FGH4095M. <i>C.L. Jia, C.C. Ge, J. Wang, B. Guo, M. Xia, T.T. Wang, H.K. Zeng, Y.C. Zhang, H. Wu</i>
15:15	A-225 CFD Modeling of a Pneumatic Drop-on-Demand Droplet Generator <i>H. Bentz, N. Ellendt, V. Uhlenwinkel</i>	A-199 Research on spray forming of P/M superalloy FGH4095 in nitrogen atmosphere. <i>C.C. Ge, Y. Xu, C.L. Jia, B. Guo, J. Wang</i>
15:40	<i>Coffee Break</i>	
16:00	Meeting of AWT FA 22 Group GW2 B2680	Lab Tour Meeting point: Registration
19:00	<i>Bremen Evening / Riverboat</i> <i>After Dinner Speech: B. Carter: Additive Manufacturing</i> <i>Bus will depart at 18:00 from the hotel "Atlantic"</i>	

SDMA 2013	Wednesday morning, September 25, 2013	
	Building GW2 - Room 2890	Building GW2 - Room 2900
08:30	Keynote Spray forming of large area porous nanostructures for electrochemical energy storage <u>P. Grant</u> Chair: V. Uhlenwinkel	
	Atomization III Chair: D. Aderhold	Spray Forming: Heavy Metals IV Chair: V. Srivastava
09:20	A-174 The Cold-Induction Guide: A Ceramic-Free Device for Melt Stream Delivery. <u>W. Carter, S. Miller</u>	A-144 Effect of Size and Distribution of the Lubricating Lead Phases on Friction coefficient in the Spray Forming High Leded Bronze. <u>P.F. Yan, D.P. Wang, B. Yan</u>
09:45	A-134 High Pressure Melt Atomization for Particle Generation using Common-Rail Technology. <u>O. Stein, U. Bröckel</u>	A-181 Microstructure and Wear Resistance of Spray Formed and Conventionally Cast High Chromium White Iron. <u>J. Lotta, S.P. Hannula</u>
10:10		A-188 Mapping the Strains and Stresses across the Interface between Dissimilar Metallic Alloys. <u>T.L. Lee, S.L. Zhao, J.F. Fan, S.Y. Zhang, J. Mi, P.S. Grant</u>
10:35	<i>Coffee Break</i>	

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	Building GW2 - Room 2890	Building GW2 - Room 2900
	Atomization IV Chair: T. Klassen	Spray Forming: Heavy Metals V / Post Processing Chair: H. Müller
10:55	A-201 Investigation of Atomization Concepts for Industrial Nanoparticle Production by Flame Spray Pyrolysis (FSP). <i>F. Meierhofer, L. Achelis, L. Buss, U. Fritsching, D. Noriler, H.F. Meier</i>	A-183 Pulsed Electric Current Sintering of Gas Atomized Ultrahigh Carbon Steel. <i>J. Lotta, K. Honkanen, J. Lagerbom, S.P. Hannula</i>
11:20	A-187 Tailor made multi-component oxide nanoparticles produced by Double Flame Spray Pyrolysis. <i>H.K. Grossmann, S. Pokhrel, D.K. Pham, L. Mädler</i>	A-224 Deposition of thermally sensitive materials by use of low temperature atmospheric plasma spraying: thermal design <i>N. Kneitinger, D. Korzec</i>
11:45	Conference Conclusion	
11:50	<i>Lunch on Campus</i>	
14:00	Post-Conference Tour: Visit of Peak Werkstoff GmbH (Wuppertal) Spray Forming of Aluminum and Steel Registration until August 15th Please contact Dr. Volker Uhlenwinkel (uhl@iwt.uni-bremen.de)	