16th International Conference on HIPIMS

Programme of Events

Cutlers' Hall, Church Street, Sheffield, S1 1HG, United Kingdom

Day One | Wednesday 17 June 2026

7:00 – 8:00 **Registration**

8:00 - 8:30 **Welcome Address** by

Prof. Arutiun P. Ehiasarian, National HIPIMS Technology Centre – UK,
Dr. Alex Prince, Director of Research and Innovation Office, Sheffield Hallam University
Prof. Jane Smith-McGuire, Dean for Research, Sheffield Hallam University

First Morning Session	8:30 – 9:30
Protective Ti coatings on BPP for proton exchange water electrolysis prepared by HIPIMS technology Stefan Koerner, Ingmar Bialuch, Ralf Bandorf *[1]Fraunhofer IST, Riedenkamp 2,38108 Braunschweig, Germany*	
Fantastic Coatings and Where to Find Them: A HIPIMS Story Marjorie. Cavarroc-Weimer[1], Aurélie Achille[2], Erwan Peigney[2], Julien Neyrat[1,2], Célia Dieudonné[2], Expedit Sèna Adjovi[4], Sara Fazeli[3], Thomas Vaubois[1], Edern Menou[1], Dominique Michau[2], Isabelle Braems[4], Pascal Brault[3], Angéline Poulon-Quintin[2] *[1]SAFRAN Paris-Saclay – SAFRAN Tech, Magny-Les-Hameaux, France* *[2]CNRS, Univ. Bordeaux, ICMCB, UMR 5026, F-33600 Pessac, France* *[3]MS4ALL, 1 avenue du champ de Mars, F45100, Orléans, France* *[4] Nantes Université, CNRS, Institut des Matériaux de Nantes Jean Rouxel, IMN, 44000 Nantes, France*	
Combinatorial sampling of CrAlN HIPIMS coatings Joern Kohlscheen *Kennametal GmbH, Altweiherstrasse 27-31, 91320 Ebermannstadt, Germany*	
Coffee Break	**9:30 – 10:00**

Second Morning Session	10:00 – 11:00
HIPIMS: Advanced Coating Technology from an Industrial Manufacturing Perspective Dr. Philipp Immich[1], Andreas Fuchs[1], Julia Janowitz[1] (presenting author), Chinmay Trivedi[1], Daniel Barnholt[1], Rick Schmitz[1], Louis Tegelears[1] *[1]IHI Hauzer Techno Coating B.V., Van Heemskerckweg 22, 5928 LL Venlo, The Netherlands*	
Using W^+ ion bombardment to reduce energy consumption during TiAlWN coating deposition under industrial conditions Klaus Pagh Almtoft[1], Kristian Rechendorff[1], Mette Rydder[1], Sanjay Kumar[2] and Grzegorz Greczynski[2] *[1] Danish Technological Institute, DK-8000 Aarhus, Denmark* *[2] Thin Film Physics Division, Department of Physics, Chemistry, and Biology (IFM), Linköping University, SE-581 83 Linköping, Sweden*	
Time-dependent ionisation region modelling of Ti/Ar HiPIMS and e-HiPIMS discharges Coline Chartrain, Rim Ettouri, Dimitri Boivin, Pierre-Yves Jouan, Ahmed Rhallabi *Nantes Université, CNRS, Institut des Matériaux de Nantes Jean Rouxel, IMN, F-44000 Nantes, France*	
Coffee Break	**11:00 – 11:30**
Third Morning Session	**11:30 – 12:30**
Time resolved optical emission spectroscopy of e-HiPIMS discharges D. Boivin[1], R. Jean-Marie-Désirée[2], S. Cuynet[2], L. De Poucques[2], R. Ettouri[1], A. Rhallabi[1], P-Y. Jouan[1] *[1] Nantes Université, CNRS, Institut des Matériaux de Nantes Jean Rouxel, IMN, F-44000 Nantes, France* *[2] Université de Lorraine, CNRS, IJL, F-54000 Nancy, France*	
Electron Density Measurements by a Multipole Resonance Probe in HiPIMS Processes K. Bobzin[(1)], M. P. Möbius[(1)], S. Cirakman*[(1)], M. Oberberg[(2)], G. Mellar[(2)], B. Berger[(2)] *[1] Surface Engineering Institute, RWTH Aachen, Kackertstrasse 15, 52072 Aachen, Germany* *[2] House of Plasma GmbH, Universitätsstrasse 136, 44799 Bochum, Germany*	
Hybrid Cleaning of Components prior to High-Tech Coating Karl Trautz *HEMO GmbH, Germany*	
Conference Photograph	**12:30 – 12:40**

Lunch Break	12:40 – 13:30

First Afternoon Session	13:30 – 14:30
HiPIMS coatings for micro tools Christoph Schiffers* *CemeCon AG; Adenauerstrasse 20A4, 52146 Würselen, Germany*	
High-Power Pulsed Bipolar Dual-Magnetron Sputtering Technology Using Cylindrical Cathodes for Deposition of Advanced Coatings in Industrial Applications Omar Benzine, Daniel Karpinski, Guillaume Wahli, Christian Krieg, Pavla Karvankova, Jan Kluson, Hamid Bolvardi, Andreas Lümkemann *Platit AG, Switzerland | PLATIT a.s., Czechia*	
Effect of carbon content on the structural, mechanical and corrosion properties of TiC films deposited using a HiPIMS discharge H. Larhlimi[1], O. Abegunde[1], Y. Samih[1], Anas Ghailane[2], M. Makha[1], J. Alami[1] [1]Materials Science, Energy and Nano-engineering department, University Mohammed VI Polytechnic (UM6P), Lot 660, Hay Moulay Rachid, 43150 Benguerir, Morocco [2]Avaluxe Coating Technologies GmbH & Co. KG // Georg-Benda-Str. 10 // D-90763 Fürth, Germany	
Coffee Break	**14:30 – 15:00**

Second Afternoon Session	15:00 – 16:00
HIPIMS Growth of Ordered Magnetic Alloys: Opportunities and Challenges W. Griggs[1,*], N. Naushad[1], T. Thomson[1] [1] *Nano Engineering and Spintronic Technologies (NEST) research group, Department of Computer Science, The University of Manchester, Manchester M13 9PL, United Kingdom*	
Copper Plasma Characteristics and Power-Supply Parameter Effects in HIPIMS for Through-Glass Via Metallization Anna W. Oniszczuk[1], Afaque M. Hossain[2] , Beniamin Łukianowski[1], Wojciech Gajewski[1], Piotr Różański[1], Arutiun P. Ehiasarian[3] [1]*Trumpf Huettinger Sp. z o.o., Zielonka, Poland* [2]*Trumpf Hüttinger GmbH + Co. KG, Freiburg, Germany* [3]*National HIPIMS Technology Centre – UK, Sheffield Hallam University, Howard St., Sheffield, S1 1WB, UK*	

Growth-controlled photochromism in yttrium oxyhydride thin films deposited by HiPIMS and pulsed-DC magnetron sputtering M.Zubkins[1], E.Letko[1], E.Strods[1], V.Vibornijs[1], D.Moldarev[2], K.Sarakinosb[3], K.Mizohata[2], K.Kundzins[1], J.Purans[1] *[1] Institute of Solid State Physics, University of Latvia, Kengaraga 8, LV-1063, Riga, Latvia* *[2] Department of Physics, University of Helsinki, P.O. Box 43, FI-00014, Helsinki, Finland* *[3] KTH Royal Institute of Technology, Department of Physics, Roslagstullsbacken 21, 11421, Stockholm, Sweden*	
Coffee Break	**16:00 – 16:30**
Third Afternoon Session	**16:30 – 18:00**
Superposition of HIPIMS with RF on a Single Magnetron: Generation of High Ion Energies Caroline Adam[1], Luka Hansen[1,2], Tobias A. Hahn[1], Jessica Niemann[1], Daniel Zuhayra[1], Günter Mark[3], Jonathan Löffler[3], Jan Benedikt[1,2], Holger Kersten[1,2] *[1] Institute of Experimental and Applied Physics, Kiel University, Kiel, Germany* *[2] Kiel Nano, Surface and Interface Science KiNSIS, Kiel University, Kiel, Germany* *[3]MELEC GmbH, Baden-Baden, Germany*	
RF-Assisted HIPIMS Operation on a Single Target: Discharge Stabilization and Ionization Behavior in Arcing-Prone Processes Anna W. Oniszczuk[1], Afaque M. Hossain[2], Wojciech Trzewiczyński[1], Beniamin Łukianowski[1], Wojciech Gajewski[1], Piotr Różański[1] *[1]Trumpf Huettinger Sp. z o.o., Zielonka, Poland* *[2]Trumpf Hüttinger GmbH + Co. KG, Freiburg, Germany*	
The Role of Cleaning Prior to High-Performance Coating: Choosing the Right Cleaning Chemistry Richard Starkey *SAFECHEM Europe GmbH, UK*	
Quo Vadis panel discussion session: Surface Engineering for Advanced Manufacturing	**18:00 – 18:30**
End of first day	**18:30**
Conference Dinner	**19:00 – 21:30**

Day Two | Thursday 18 June 2026

First Morning Session	09:30 – 10:00
Antimicrobial activity of superhard nanostructured and plasmonically active TiN-based coatings Thomas J. Smith[1], David S. Owen[1], Arunprabhu Sugumaran[2], Yashodhan Purandare[2], Ethan Muir[2], Ryan Bower[3], Bruno Rente[3], Peter K. Petrov[3], Ming Fu[4], Rupert Oulton[4], Papken Eh. Hovsepian[2], Arutiun P. Ehiasarian[2] *[1] Sheffield Hallam University, School of Biosciences and Chemistry, Sheffield, United Kingdom* *[2] Sheffield Hallam University, Materials and Engineering Research Institute, Sheffield, United Kingdom* *[3] Imperial College London, Department of Materials, London, United Kingdom* *[4] Imperial College London, Department of Physics, London, United Kingdom*	
Coffee Break	**10:00 – 10:30**
Second Morning Session	**10:30 – 11:30**
HIPIMS for Robust Manufacturable Antimicrobial Surfaces based on Plasmonic Photocatalytic Nanoscale Multilayer Coatings Arutiun P. Ehiasarian[1] Thomas J. Smith[2], David S. Owen[2], Arunprabhu Sugumaran[1], Yashodhan Purandare[1], Ethan Muir[1], Ryan Bower[3], Bruno Rente[3], Peter K. Petrov[3], Ming Fu[4], Rupert Oulton[4], Papken Eh. Hovsepian[1] *[1] Sheffield Hallam University, Materials and Engineering Research Institute, Sheffield, United Kingdom* *[2] Sheffield Hallam University, School of Biosciences and Chemistry, Sheffield, United Kingdom* *[3] Imperial College London, Department of Materials, London, United Kingdom* *[4] Imperial College London, Department of Physics, London, United Kingdom*	
Tribological Performance of Nano-Patterned Nanoscale Multilayer TiN/NbN Coatings Prepared by HIPIMS Yashodhan Purandare[1], Arunprabhu Sugumaran[1], Ryan Bower[2], Bruno Rente[2], Peter K. Petrov[2], Ming Fu[3], Rupert Oulton[3], Papken Eh. Hovsepian[1], Arutiun P. Ehiasarian[1] *[1] Sheffield Hallam University, Materials and Engineering Research Institute, Sheffield, United Kingdom* *[2] Imperial College London, Department of Materials, London, United Kingdom* *[3] Imperial College London, Department of Physics, London, United Kingdom*	
Titanium Nitride Deposition by Constant-Current Regulated HIPIMS for Plasmonic Applications: Influence of the Discharge Composition and Pressure Ethan Muir[1], Diederik Depla[2], Ryan Bower[3], Vladimir Kornienko[3], Peter K. Petrov[3], Ming Fu[4], Rupert Oulton[4], Papken Eh. Hovsepian[2], Arutiun P. Ehiasarian[2] *[1] Sheffield Hallam University, Materials and Engineering Research Institute, Sheffield, United Kingdom* *[2] University of Ghent, Belgium* *[3] Imperial College London, Department of Materials, London, United Kingdom* *[4] Imperial College London, Department of Physics, London, United Kingdom*	
Prof. Papken Eh. Hovsepian Prize Announcement	**11:30**
Closing remarks, A.P. Ehiasarian	**12:00**
Lunch Break	**12:30**