

EBT 2016 SCIENTIFIC PROGRAM

Data	Time	Event	Chairman/Place
13.06.2016	18:00-19:00	<u>Registration</u>	EBT 2016 Conference office - Lobby of the Grand Hotel Varna
	19:00	<u>Welcome cocktail party</u>	Lobby-bar of the Grand Hotel Varna
14.06.2016	10:00-12:10	<u>Tuesday morning session 1</u>	Prof. Georgi Mladenov
	12:10-13:30	Lunch	Any of the hotel restaurants
	13:30-15:10	<u>Tuesday afternoon session 1</u>	Prof. Rolf Zenker
	15:10-17:00	<u>Tuesday afternoon session 2</u>	Dr. Colin Ribton
	17:00-18:00	<u>Tuesday afternoon session 3</u>	Prof. Takeshi Tanaka
	18:00-19:00	<u>Tuesday poster session</u>	Sci. secretary: Lilyana Koleva
	19:00-20:30	Dinner	Any of the hotel restaurants
	20:30	Sports and Outdoor Chess Competition	
15.06.2016	9:20-11:00	<u>Wednesday morning session 1</u>	Prof. Katia Vutova
	11:00-12:30	<u>Wednesday morning session 2</u>	Assoc. Prof. Elena Koleva
	12:30-14:00	Lunch	Any of the hotel restaurants
	14:00-15:40	<u>Wednesday afternoon session 1</u>	Dr. Goesta Mattausch
	15:40-17:10	<u>Wednesday afternoon session 2</u>	Assoc. Prof. Dimitriy Trushnikov
	17:10-18:00	<u>Wednesday poster session</u>	Sci. secretary: Volodya Dzharov
	19:00	Official conference dinner	Thematic hotel restaurant
16.06.2016	9:30-11:10	<u>Thursday morning session 1</u>	Mr. Dmytro Kovalchuk
	11:10-12:50	<u>Thursday morning session 2</u>	Prof. Papken Hovsepian
	12:50-14:20	Lunch	Any of the hotel restaurants
	14:20-16:10	<u>Thursday afternoon session 1</u>	Prof. Nikolai Kuksanov
	16:10-16:20	<u>Closing of the official part of the conference</u>	
	16:20-20:00	Outdoor sport events	
17.06.2016	9:20	<u>Excursion with dinner</u>	
18.06.2016		<u>Departure day</u>	

13 June 2016

Monday

18:00	Registration	EBT 2016 Conference office - Lobby of the Grand Hotel Varna
19:00	Welcome cocktail party for participants and the all accompanying persons	Lobby-bar of the Grand Hotel Varna

14 June 2016**Tuesday****Tuesday morning sessions**

9:50-10:00	Opening Ceremony
SS1	Chairman: Prof. Georgi Mladenov
10:00-10:30	Invited presentation 1: <u>Building the Eco – system for the electro – optics platform</u> <u>Mr. Kenneth Tai</u> ^{1,2} 1) Jasper Display Corp. Headquarter, TW, Hsinchu City, Taiwan 2) Jasper Display Corp., Subsidiary, Santa Clara, CA, USA
10:30-11:00	Invited presentation 2: <u>State of the art of additive manufacturing by selective electron beam melting</u> <u>Georgi Mladenov</u> ^{1,2} , <u>Elena Koleva</u> ^{1,2,3} , <u>Lilyana Koleva</u> ³ and <u>Volodya Dzharov</u> ¹ 1) Institute of electronics, Bulgarian Academy of Sciences, Bulgaria 2) Technological Center of Electron Beam and Plasma Technologies and Technique Ltd., Sofia, Bulgaria 3) University of Chemical Technology and Metallurgy, Bulgaria

11:00-11:10 Coffee break

11:10-11:40	<u>Effect of craters on deep hardening under pulsed electron beam</u> <u>Thierry Grosdidier</u> ^{1,2} , <u>Youssef Samih</u> ^{1,3} and <u>Chuang Dong</u> ^{2,3} 1) Laboratoire d'Etude des Microstructures et de Mécanique des Matériaux (LEM3), CNRS UMR 7239, Université de Lorraine, Île du Saulcy, 57000 Metz, France 2) Laboratoire d'Excellence Design des Alliages Métalliques pour Allègement de Structures (Labex DAMAS), Île du Saulcy, 57000 Metz, France 3) Key Laboratory of Materials Modification, Dalian University of Technology, Dalian, China
11:40-12:10	<u>Vistec Electron Beam, Germany – Company presentation</u> <u>Mr. Hartmut Schacke and Ines Stolberg</u> Vistec Electron Beam, Germany

12:10-13:30 Lunch in any of the hotel restaurants

Tuesday afternoon session 1

SS2	Chairman: Prof. Rolf Zenker
13:30-13:50	<u>Study on dual metal materials electron beam selective melting</u> <u>Chao Guo</u> ^{1,2,3} , <u>Wenjun Ge</u> ^{1,2,3} and <u>Feng Lin</u> ^{1,2,3} 1) Department of Mechanical Engineering, Tsinghua University, Beijing 100084, China 2) Key Laboratory for Advanced Materials Processing Technology (Ministry of Education of China), Tsinghua University, Beijing 100084, China 3) Biomanufacturing and Rapid Forming Technology Key Laboratory of Beijing, Tsinghua University, Beijing 100084, China
13:50-14:10	<u>Electron beam additive manufacturing at the Nuclear AMRC</u> <u>Bernd Baufeld, R. Widdison, Thomas Dutilleul and Keith Bridger</u> Nuclear AMRC, University of Sheffield, United Kingdom

14:10-14:20 Coffee break

14:20-14:40	<u>Numerical investigation of the influence of electron beam acceleration voltage in powder based additive manufacturing processes</u> <i>Fuad Osmanlic, Alexander Klassen, Thorsten Scharowsky and Carolin Körner</i> Metals Science and Technology, University of Erlangen-Nuremberg, Erlangen, Germany
14:40-15:00	<u>Prospects of application of gas-discharge electron beam guns in additive manufacturing</u> <i>Dmytro Kovalchuk, Vitalii Melnyk, Ihor Melnyk and Borys Tugai</i> JSC NVO "Chervona Hvilya" Kyiv, Ukraine

15:00-15:10 Coffee break

Tuesday afternoon session 2

SS3	Chairman: Dr. Colin Ribton
15:10-15:40	<u>Invited presentation 3:</u> <u>Some topics and other application of electron beam</u> <i>Dr. Masud Naraghi</i> Torr International, New Windsor, New York, USA
15:40-16:00	<u>Electron beam characterizing and its relevance for production</u> <i>Clemens Liebig, Jürgen Fath and Thorsten Löwer</i> Pro-beam AG & Co. KGaA, Planegg, Germany

16:00-16:10 Coffee break

16:10-16:30	<u>Design of electron guns using a bespoke genetic algorithm</u> <i>Colin Ribton^{1,2}, Sofia del Pozo^{1,2}, Wamadeva Balachandran¹ and David Ryan Smith¹</i> 1) Brunel University London, United Kingdom 2) TWI Ltd, United Kingdom
16:30-16:50	<u>Development of a novel device and analysis method for characterising electron beams for welding application</u> <i>Aman Kaur¹, Colin Ribton^{1,2} and Wamadeva Balachandran¹</i> 1) Brunel University London, United Kingdom 2) TWI Ltd, United Kingdom

16:50-17:00 Coffee break

Tuesday afternoon session 3

SS4	Chairman: Prof. Takeshi Tanaka
17:00-17:20	<u>Direct metal printing</u> <i>Massimiliano Di Lecce</i> Ideativ A (Design and environmental sustainability consulting), Italy

17:20-17:40	Investigation of forming process during electron beam Surfing – Sculpt™ <i>Kai LI, Xichang WANG, Pengfei FU, Shuili GONG and Zhiqiang LI</i> Science and Technology on Power Beam Processes Laboratory, Beijing Aeronautical Manufacturing Technology Research Institute, Beijing, 100024, China
17:40-18:00	Comparative analysis of the secondary emission current and x – ray radiation dependency on the beam’s position along the joint during electron beam welding <i>Vladimir Ya. Braverman, Valeriy V. Bogdanov, Nikolay V. Uspenskiy and Vladimir S. Belozertsev</i> M.F. Reshetnev Siberian State Aerospace University Krasnoyarsk, Russian Federation

Tuesday Poster session**18:00-19:00**

PS1	Sci. secretary: Lilyana Koleva
1	Performance of the XR 1541 negative e-beam resist in the e-beam lithography for chosen substrate materials <i>Robert Andok¹, Jaroslava Skriniarova², Pavol Nemeč¹ and Anna Bencurova¹</i> 1) Institute of Informatics, Slovak Academy of Sciences, Dubravská cesta 9, SK-84507 Bratislava, Slovak Republic 2) Institute of Electronics and Photonics, Faculty of Electrical Engineering and Information Technology, Slovak University of Technology in Bratislava, Ilkovičova 3, SK-81219 Bratislava, Slovak Republic
2	Spore – forming bacteria sterilization using plasma – based ion implantation (2nd report) <i>Koji Kakugawa¹, Kai Saitoh², Kazuhiro Shimono¹, Hiromitsu Noguchi¹, Yoshinobu Tsuchiya¹ and Takeshi Tanaka²</i> 1) Department of Food Science and Biotechnology, Faculty of Life Sciences, Hiroshima Institute of Technology, Hiroshima, Japan 2) Department of Electronics and Computer Engineering, Hiroshima Institute of Technology, Japan
3	Simulation of ion implantation for Si using TCAD <i>Takuma Adachi, Yuki Hirota, Yousuke Nakaguchi, Kota Takahama, Koji Mukai, Masayuki Yamauchi, Nobuharu Okamitsu and Takeshi Tanaka</i> Department of the Electronics and Computer Engineering, Faculty of Engineering, Hiroshima Institute of Technology, Japan
4	Resist characteristics simulation of HSQ electron beam resist <i>Anna Bencurova¹, Katia Vutova², Elena Koleva^{2,3,4}, Ivan Kostic¹, Anna Konecnikova¹, A. Ritomsky¹ and Georgi Mladenov^{2,3}</i> 1) Institute of Informatics, Slovak Academy of Sciences, Dubravská cesta 9, SK-84507 Bratislava, Slovak Republic 2) Institute of Electronics, Bulgarian Academy of Sciences, Sofia, Bulgaria 3) Technology Centre of Electron Beam and Plasma Technologies and Techniques, Sofia, Bulgaria 4) University of Chemical Technology and Metallurgy, Bulgaria
5	Non – vacuum electron beam apparatus based on the plasma emitter <i>A. Aksenov, S. Kornilov, M. Motorin, Nikolay Rempe, D. Shashev and S. Shidlovskiy</i> Tomsk State University of Control System and Radio-electronics, Tomsk, Russian Federation
6	Flash electron beam welding of stainless steels 1.4510 and 1.4511 <i>Jiří Matlák¹, I. Šipula², V. Štraus² and I. Dlouhý¹</i> 1) Institute of Materials Science and Engineering, NETME centre, Brno University of Technology, Czech Republic 2) Robert Bosch, spol. s r.o., České Budějovice, Czech Republic

7	<p><u>Characteristics of plasma generated during electron beam welding</u> <u>Georgi Mladenov^{1,2}, Dmitriy Trushnikov³, Elena Koleva^{1,2,4} and Vladimir Belenkiy³</u> 1) Institute of electronics, Bulgarian Academy of Sciences, Bulgaria 2) Technology Centre of Electron Beam and Plasma Technologies and Techniques, Sofia, Bulgaria 3) Perm National Research Polytechnic University, Perm, Russian Federation 4) University of Chemical Technology and Metallurgy, Bulgaria</p>
8	<p><u>Corrosion resistance of Ti-Ta-Nb and Ti-Ta-Zr coatings fabricated on VT14 titanium alloy substrates using the electron beam injected into the atmosphere</u> <u>Vitaliy V. Samoylenko¹, Igor A. Polyakov¹, Mikhail G. Golkovski², Nikolay K. Kuksanov², Olga G. Lenivtseva¹ and Ilya S. Ivanchik³</u> 1) Novosibirsk State Technical University of Russia, Novosibirsk, Russian Federation 2) Budker Institute of Nuclear Physics SB RAS, Novosibirsk, Russian Federation 3) Siberian State University of Water Transport of Russia, Novosibirsk, Russian Federation</p>
9	<p><u>The new condensed from vapor phase composite materials based on copper and their applications</u> <u>Nikolai I. Grechanyuk¹, V. G. Grechanyuk¹, E. V. Khomenko¹, I. N. Grechanyuk¹, V. G. Zatovsky¹ and D. Kovalchuk²</u> 1) Frantsevich Institute for Problems of Materials Science, The National Academy of Sciences of Ukraine, Ukraine 2) JSC NVO “Chervona Hvilya” Kyiv, Ukraine</p>
10	<p><u>Automation control of EBW installation by SIMATIC S7-300 PLC</u> <u>Elena Kolva^{1,2,3}, Volodya Dzharov¹ and Peter Yordanov²</u> 1) Institute of electronics, Bulgarian Academy of Sciences, Bulgaria 2) University of Chemical Technology and Metallurgy, Bulgaria 3) Technology Centre of Electron Beam and Plasma Technologies and Techniques, Sofia, Bulgaria</p>

19:00-20:30 Dinner in any of the hotel restaurants

20:30 Sport events and outdoor chess competition

15 June 2016

Wednesday

Wednesday morning session 1

SS5	Chairman: Prof. Katia Vutova
9:20-9:40	<p><u>High resolution nanofabrication</u> <u>Yordan M. Georgiev</u> Institute of Ion Beam Physics and Material Research, Helmholtz-Zentrum, Dresden-Rossendorf, Germany</p>
9:40-10:00	<p><u>Pulsed electron beams for surface finish of laser or electron beam sintered metal articles</u> <u>Anton D. Teresov^{1,2}, Nikolai N. Koval^{1,2}, Yuri F. Ivanov^{1,2} and Elizaveta A. Petrikova^{1,2}</u> 1) Institute of High Current Electronics SB RAS, Tomsk, Russian Federation 2) National Research Tomsk State University, Tomsk, Russian Federation</p>

10:00-10:10 Coffee break

10:10-10:30	<u>High – temperature radiolysis of alkanes: synthesis and decomposition</u> <i>Alexander V. Ponomarev, A. K. Metreveli, A. V. Bludenko and V. N. Chulkov</i> <i>A.N.Frumkin Institute of Physical Chemistry and Electrochemistry, Russian Academy of Sciences, Russian Federation</i>
10:30-10:50	<u>Application of electron beam irradiation to modify the rheological behavior of pectins</u> <i>Monica R. Nemtanu and Mirela Brasoveanu</i> <i>National Institute for Lasers, Plasma and Radiation Physics, Electron Accelerators Laboratory, Romania</i>

10:50-11:00 Coffee break

Wednesday morning session 2

SS6	Chairman: Assoc. Prof. Elena Koleva
11:00-11:20	<u>Electron beam characterisation</u> <i>Thomas Dutilleul, J. Priest and Bernd Baufeld</i> <i>Nuclear AMRC of the University of Sheffield, United Kingdom</i>
11:20-11:40	<u>Emittance – quantitative characteristics of welding beam quality</u> <i>Elena Koleva^{1,2,3}, Georgi Mladenov^{1,3}, Volodya Dzharov¹, Dimitar Todotov^{1,4}, Marin Kerdjiev¹, Lilyana Koleva²</i> <i>1) Institute of electronics, Bulgarian Academy of Sciences, Bulgaria</i> <i>2) University of Chemical Technology and Metallurgy, Bulgaria</i> <i>3) Technology Centre of Electron Beam and Plasma Technologies and Techniques, Sofia, Bulgaria</i> <i>4) Telenor, Bulgaria</i>

11:40-11:50 Coffee break

11:50-12:10	<u>Automated wide-aperture plasma cathode electron source with beam extraction into the atmosphere</u> <i>Maxim Vorobyov¹, V. V. Denisov¹, N. N. Koval^{1,2}, S. A. Sulakshin¹, V. V. Shugurov¹ and V. V. Yakovlev¹</i> <i>1) Institute of High Current Electronics SB RAS, Tomsk, Russian Federation</i> <i>2) National Research Tomsk State University, Tomsk, Russian Federation</i>
12:10-12:30	<u>Development of a toroidal EB source for non-thermal electron treatment of bulk goods</u> <i>Ignacio Vicente-Gabas, Ralf Blüthner, Sebastian Schmidt, S. A. Sulakshin, Goesta Mattausch and Frank-Holm Roegner</i> <i>FEP - Fraunhofer Institute for Organic Electronics, Electron Beam and Plasma Technology, Dresden, Germany</i>

12:30-14:00 Lunch in any of the hotel restaurants

Wednesday afternoon session 1

SS7	Chairman: Dr. Goesta Mattausch
14:00-14:20	<u>Large chamber electron beam welding machine designed for joining of 3D structures</u> <i>F. Kolenic, Daniel Drimal, P. Faragula and L. Kovac</i> <i>First Welding Company Inc., Kopcianska 14, Bratislava, Slovak Republic</i>

14:20-14:40	<p><u>The influence of beam positioning on the weld ability of dissimilar welding joints with high alloy TRIP/TWIP steels</u> <u>Lars Halbauer¹, Anja Buchwalder¹, Rolf Zenker^{1,2} and Horst Biermann¹</u> 1) TU Bergakademie Freiberg, Institute of materials engineering, Germany 2) Zenker Consult, Mittweida, Germany</p>
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14:40-14:50 Coffee break

14:50-15:10	<p><u>EBW application for the manufacture of HEBT dipole vacuum chambers, FAIR</u> <u>Aleksey M. Medvedev^{1,3}, Alexey M. Semenov^{1,2}, Yuri I. Semenov¹, Alexandr A. Starostenko^{1,3}, Mikhail M. Sizov^{1,3} and Aleksandr S. Teyganov¹</u> 1) Budker Institute of Nuclear Physics, Novosibirsk, Russian Federation 2) Novosibirsk State Technical University, Novosibirsk, Russian Federation 3) Novosibirsk State University, Russian Federation</p>
15:10-15:30	<p><u>Application of low – transformation – temperature (LTT) materials for stress reduction in electron beam welding</u> <u>Uwe Reisgen, Simon Olschok and Stefan Gach</u> ISF RWTH Aachen University, Germany</p>

15:30-15:40 Coffee break

Wednesday afternoon session 2

SS8	Chairman: Assoc. Prof. Dimitriy Trushnikov
15:40-16:00	<p><u>EBW process control on the basis of solving the inverse problem of the keyhole form reconstruction</u> <u>Dimitriy N. Trushnikov, N. M. Krotova and N. M. Musihin</u> Perm National Research Polytechnic University, Perm, Russian Federation</p>
16:00-16:20	<p><u>Simulation of thermal processes at electron-beam welding with beam splitting</u> <u>Tatiana V. Olshanskaya</u> Perm National Research Polytechnic University, Perm, Russian Federation</p>

16:20-16:30 Coffee break

16:30-16:50	<p><u>Hydrodynamic tensions and heat exchange in the weld metal under spatially heterogeneous evaporation conditions at electron beam welding</u> <u>Sergiy P. Sirenko and Vladimir M. Nesterenkov</u> E. O. Paton Electric Welding Institute, Ukraine</p>
16:50-17:10	<p><u>Electron beam welding of thin sheet niobium</u> <u>Igar L. Pobal and Siarhei V. Yurevich</u> Physical-Technical Institute of the National Academy of Sciences of Belarus, Minsk, Belarus welding energy sources, Belarus</p>

Wednesday poster session

17:10-18:00

PS2	Sci. secretary: Volodya Dzharov
1	<u>Control of modified surface layer thickness in pulsed large – area EB irradiation</u> <i>Akira Okada¹, Togo Shinonaga¹ and Motohiro Inoue²</i> 1) Okayama University, Okayama, Japan 2) Sodick Co., Ltd., Yokohama, Japan
2	<u>Chemical composition of the weld formation at the high concentrated energy source welding in a vacuum</u> <i>Ekaterina S. Salomatova, Dmiriy N. Trushnikov, Tatiana V. Olshanskaya and Vladimir Ya. Belenkiy</i> Perm National Research Polytechnic University, Perm, Russian Federation
3	<u>Dynamic processes in welded seams during welding with high-concentrated power sources</u> <i>Elena M. Fedoseeva and Tatyana V. Olshanskaya</i> Perm National Research Polytechnic University, Perm, Russian Federation
4	<u>Fractal geometry in metallurgy of welding and coatings</u> <i>Ekaterina A. Krivonosova, E. K. Krivonosova, D. N. Trushnikov and I. S. Ponomarev</i> Perm National Research Polytechnic University, Perm, Russian Federation
5	<u>High strength electron beam brazing of titanium aluminides to dissimilar materials - Evobeam GmbH, Mainz, Germany – Company presentation</u> <i>Matthias Wahl and Stefan Milchev</i> Evobeam GmbH, Mainz, Germany
6	<u>Electron beam sintering of copper inks for applications in rapid prototyping and printed electronics</u> <i>Sindy Mosch¹, Robert Jurk¹, Benjamin Graffel², Bjoern Meyer², Wolfgang Schwarz² and Falk Winckler²</i> 1) Fraunhofer Institute for Ceramic Technologies and Systems, Dresden, Germany 2) Fraunhofer Institute for Organic Electronics, Electron Beam and Plasma Technology, Dresden, Germany
7	<u>Obtaining of pure molybdenum through electron beam melting of scrap materials</u> <i>Vania Vassileva¹, Katia Vutova¹, Maria Naplatanova¹, Nagegownivari Munirathnam and Dinesh Amalnerkar</i> 1) Institute of electronics, Bulgarian Academy of Sciences, Bulgaria 2) Centre for Materials for Electronics Technology, Panchawati, Off Pashan Road, Pune, India 3) School of Mechanical Engineering, Sungkyunkwan University, Cheoncheon-dong, Jangan-gu, Suwon, Gyeonggi, South Korea
8	<u>Electron-beam graft modification of biopolymers for use in the surface water treatment</u> <i>Mirela Braşoveanu, Monica R. Nemţanu, Liliana Flore and Veronica Anca</i> National Institute for Lasers, Plasma and Radiation Physics, Electron Accelerators Laboratory, Bucharest-Magurele, Romania
9	<u>Graphical user interface for optimization of starch modified by electron beam irradiation</u> <i>Elena Koleva^{1,2,3}, Lilyana Koleva², Mirela Braşoveanu⁴, Monica R. Nemţanu⁴, Toni Paneva² and Ventzislav Tzotchev²</i> 1) Institute of electronics, Bulgarian Academy of Sciences, Bulgaria 2) University of Chemical Technology and Metallurgy, Bulgaria 3) Technology Centre of Electron Beam and Plasma Technologies and Techniques, Sofia, Bulgaria 4) National Institute for Lasers, Plasma and Radiation Physics, Electron Accelerators Laboratory, Bucharest-Magurele, Romania

19:00 Official conference dinner in a thematic hotel restaurant

16 June 2016
Thursday

Thursday morning session 1

SS9	Chairman: Mr. Dmytro Kovalchuk
9:30-9:50	<u>Laser welding under reduced pressure</u> <i>Philipp Sieber, Björn Hansen, Thorsten Löwer and Alexander Maaz</i> <i>Pro-beam AG & Co. KGaA, Planegg, Germany</i>
9:50-10:10	<u>Testing of the technology of local electron–beam annealing of circular samples from titanium alloy VT8–1 (BT8–1) applied to aircraft engine product – a welded compressor drum</u> <i>Pavel Denysiuk</i> <i>Steigerwald Strahltechnik GmbH, Maisach, Germany</i>

10:10-10:20 Coffee break

10:20-10:40	<u>The actual EB application spectrum and its prospects beside welding</u> <i>Björn Hansen and Thorsten Löwer</i> <i>Pro-beam AG & Co. KGaA, Planegg, Germany</i>
10:40-11:00	<u>Improved surface properties of nodular cast iron using electron beam remelting and alloying with nickel based additives</u> <i>Anja Buchwalder¹, Norman Klose¹, A. Jung¹ and Rolf Zenker^{1,2}</i> <i>1) TU Bergakademie Freiberg, Institute of materials engineering, Germany</i> <i>2) Zenker Consult, Mittweida, Germany</i>

11:00-11:10 Coffee break

Thursday morning session 2

SS10	Chairman: Prof. Papken Hovsepian
11:10-11:30	<u>improving the load capacity of thermal spray coatings on different substrate materials by EB profiling</u> <i>Philipp Hengst¹, Rolf Zenker^{1,2}, Tilo Süß³ and Klaus Hoffmann</i> <i>1) TU Bergakademie Freiberg, IWT, Mittweida, Germany</i> <i>2) Zenker Consult, Mittweida, Germany</i> <i>3) IWB Werkstofftechnologie GmbH, Chemnitz, Germany</i>

11:30-11:50	<p><u>Performance of HIPIMS deposited CrN/NbN nanostructured coatings exposed to 650°C in pure steam environment</u> <u>Papken Eh. Hovsepian¹, A. P. Ehasarian¹, Y. P. Purandare¹, B. Biswas¹, F. J. Pérez², M. I. Lasanta², M. T. de Miguel², A. Illana² and A. Agüero³</u> 1) UK National Technology HIPIMS Centre, Materials and Engineering Research Institute, Howard Street, Sheffield Hallam University, Sheffield, S1 1WB, United Kingdom 2) Grupo de Ingeniería de Superficies y Materiales Nanoestructurados. Facultad de Ciencias Químicas. Universidad Complutense de Madrid. 28040 Madrid, Spain 3) Instituto Nacional de Técnica Aeroespacial (INTA), Ctra. Ajalvir Km. 4, 28850 Torrejo'n de Ardoz (Madrid), Spain</p>
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11:50-12:00 Coffee break

12:00-12:20	<p><u>Deposition of metallurgical and dielectric coatings by electron beam and comparison with sputtering, and thermal evaporation methods of coating</u> <u>Masud Naraghi, M. Suther, E. Belkof, M. Droney, N. Devchakke, S. Werkmeister and B. Murphy</u> Torr International, New Windsor, New York, USA</p>
12:20-12:50	<p><u>Design, construction and preliminary results of a pulsed electron beam facility for surface modification of materials</u> <u>Masud Naraghi, S. Werkmeister, A. Egorov and N. Devchakke</u> Torr International, New Windsor, New York, USA</p>

12:50-14:20 Lunch in any of the hotel restaurants

Thursday afternoon session 1

SS11	Chairman: Prof. Nikolai Kuksanov
14:20-14:40	<p><u>Industrial electron accelerators ILU and their applications</u> <u>Alexandr Bryryazgin, V. Bezuglov, A. Vlasov, L. Voronin, M. Korobeynikov, A. Lukin, S. Maksimov, V. Nekhaev, F. Nikonov, A. Panfilov, V. Radchenko, A. Sidorov, V. Tkachenko, B. Faktorovich and E. Shtarklev</u> Budker Institute of Nuclear Physics SB RAS, Novosibirsk, Russian Federation</p>
14:40-15:00	<p><u>The development of ELV accelerators for optimization of EB processing of polymers</u> <u>Y. I. Golubenko, Nikolai K. Kuksanov, R. A. Salimov, S. N. Fadeev, P. I. Nemytov, A. I. Korchagin, A. V. Lavruchin, A. V. Semenov, V. G. Cherepkov, D. A. Kogut, E. V. Domarov, D. S. Vorobiev and M. N. Stepanov</u> Budker Institute of Nuclear Physics SB RAS, Novosibirsk, Russian Federation</p>

15:00-15:10 Coffee break

15:10-15:30	<p><u>Training students using presentations at meetings in the fields of physics, engineering and technologies</u> <u>Tomomi Tanioka¹, Katia Vutova², Masayuki Yamauchi¹, Takeshi Tanaka¹</u> 1) Department of Electronics and Computer Engineering, Hiroshima Institute of Technology, Japan 2) Institute of electronics, Bulgarian Academy of Sciences, Bulgaria</p>
15:30-15:50	<p><u>Electron spectrometer for electron impact ionization studies in e-COL laboratory</u> <u>Mevlut Dogan and Zehra Nur</u> Department of Physics, e-COL Laboratory, Afyon Kocatepe University, 03200, Afyon, Turkey</p>

15:50-16:10	Multi-element cylindrical electron gun systems for focusing and controlling electron beam <u>Mevlut Dogan</u> <i>Department of Physics, e-COL Laboratory, Afyon Kocatepe University, 03200, Afyon, Turkey</i>
16:10-16:20	Closing of the official part of the conference
16:20-20:00	SPORT EVENTS

17 June 2016

Friday

9:20 **Excursion with dinner, organized by Orgcommittee**

18 June 2016

Saturday

Departure Day