Monday, June 23, 2014

Time		Title	Authors	Affiliation	Country
08:00	10:00	**Registration/Conference Office**			
10:00	10:30	**Opening Sessions**			
		FUNDAMENTALS - Chairman: Dr. Williamson Co-Chairman: Prof. Schröder			
10:30	10:50	The Threshold Welding Current for Large Area Closed Contacts with Two or Three points of Contact	Dr. Paul G. Slade	FIEE, Consultant, Ithaca, NY	USA
10:50	11:10	Enhancing the contact interface be matching the surface pressure and current density distribution	M. Leidner, u. a.	Tyco Electronics AMP GmbH, Speyer	Germany, USA
11:10	11:30	The Influence of Multiscale Roughness on the Real Contact Area and Contact Resistance between Real Standard Surfaces	Robert L. Jackson	Department of Mechanical Engineering, Auburn University, Auburn, AL	USA
11:30	11:50	Increased contact resistance of switching contacts during current carrying	M. Weis	AC²T research GmbH, Wiener Neustadt	Austria
11:50	12:10	Oxygen diffusion process on the copper surface by contact resistance	Hiroshi Kikuchi, u. a.	Tamagawa University, Tokyo	Japan
12:10	12:30	Contact Blow-Apart Forces: Experience in Molded Case Circuit Breaker Contact Systems	J. Ferree, Dr. M. Anheuser, u. a.	Siemens Industry Inc., Tucker, Georgia	USA, Germany
12:30	13:30	**Lunch**			
		MATERIALS I - Chairman: Dr. Timsit Co-Chairman: Dr. Braumann			
13:30	13:50	A Switchgear Manufactures Perspective of Contact Material Requirements	S. Kosse, C. Schuh, M. Anheuser	Siemens AG, Erlangen	Germany
13:50	14:10	New microstructure investigations of arc damaged silver/tinoxide electrodes by means of FIB-technique	Dipl.-Ing., Christian Selzner	saarland university, Saarbruecken	Germany
14:10	14:30	Optimization of material erosion and welding performance by metal oxides and magnetic particles.	E.YEE KIN CHOI, u. a.	Metalor Technologies (France) University of Rennes 1 (France)	France
14:30	14:50	An evaluation of Ag/W and Ag/Metal Oxide arcing contact combinations for circuit breaker applications	Chi Leung, u. a.	Metalor Technologies	USA, France
14:50	15:10	Contact Material Effects on Dynamic Contact Sticking	T. Mützel, u. a.	Umicore AG & Co. KG, Hanau-Wolfgang	Germany
15:10	15:30	Welding Behavior in Making and Breaking Operations of Electrical Contacts	Qian Wang, u. a.	Huazhong University of Science and Technology	
15:30	16:00	**Coffee Break**			
		CONNECTORS - Chairman: Ir. van Dijk Co-Chairman: Dr. Buresch			
16:00	16:20	Electrical behavior of golden automotive connectors under vibration tests	Sophie Noël, u. a.	Laboratoire de Génie Electrique de Paris, Supélec, Gif-Yvette	France
16:20	16:40	Novel Silver-Palladium Electrolyte for Electrical Contacts	F. Talgner, u. a.	Umicore Galvanotechnik GmbH, Schwaebisch Gmuend	Germany
16:40	17:00	Connector Level Performance Evaluation of a New High Speed Reel to Reel Electroplated Silver Palladium Alloy Contact Finish	M. Myers, H. Schmidt, TE Connectivity	TE Connectivity	USA, Germany
17:00	17:20	Wear particle formation in sliding gold plated electrical contacts	N. Beckmann, u. a.	Institute for Applied Materials IAM, Karlsruhe Institute of Technology	Germany
17:20	17:40	Failure Mechanism of Sliding Electrical Contacts with Various Plated Materials	Yilin. Zhou, u. a.	Beijing University of Posts and Telecommunications,Beijing	China
17:40	18:00	The electrical contact resistance endurance of heterogeneous Sn/Ag in-terfaces subjected to fretting wear	O. Perrinet, u. a.	LTDS – Ecole Centrale de Lyon, 36 av Guy de Collongue – 69130 Ecully	France
18:00	20:00	**Welcome Reception - Poster Session with Buffet**			

Tuesday, June 24, 2014

Time		Title	Authors	von	Land
07:30	08:30	**Registration/Conference Office**			
		ARC INTERUPTION/DC - Chairman: Prof. Miedzinski	**Co-Chairman: Dr. Anheuser**		
08:00	08:20	Hybrid switches in protective devices for low-voltage DC grids at commercial used buildings	P. Meckler, u. a.	P. Meckler, E-T-A Elektrotechnische Apparate GmbH, Altdorf	Germany
08:20	08:40	Breaking performance of protection devices for automotive dc powertrains with a voltage of 450 V	H. Köpf, u. a.	University of Technology Braunschweig - Institute for High Voltage Technology and Electrical Power Systems, Braunschweig	Germany
08:40	09:00	Electro-mechanical properties and welding characteristics of Ag/MoS2, Ag/WS2, Ag/CNTs and Ag/CdO materials for high-DC current contact applications	J. Jaćimović, u. a.	Département de Physique de la Matière Condensée, Université de Genève	Switzerland
09:00	09:20	Break arc behaviors of Ag and AgSnO2 contact pairs under different contact opening speeds in DC load circuits	Makoto Hasegawa	Chitose Institute of Science and Technology, Chitose	Japan
09:20	09:40	Development of a compact relay for high voltage switching of up to 1000VDC and 40A	Dr. Dieter Volm	Panasonic Electric Works Europe AG, Holzkirchen	Germany
09:40	10:00	High-speed Simultaneous observation of Contact Surfaces and break arcs	J. Sekikawa, M. Nakamura	Shizuoka University, Hamamatsu	Japan
10:00	10:30	**Coffee Break**			
		CONTACTS/CONNECTORS - Chairman: Dr. Johler	**Co-Chairman: Dr. Schmidt**		
10:30	10:50	Electrical and Tribological Characteristics of Copper Containing Diamond-like Carbon Nanocomposite Coating on Brass Substrate Sliding against Brass Ball	R. HOMBO, u. a.	DENSO CORPORATION, Kariya	Japan, France
10:50	11:10	Numerical Simulation and experimental verification for Contact Spot Temperature and Electrical Contact Resistance of Rivet contacts	W.Ren, J.Song, u. a.	Harbin Inst. of Tech.,Harbin, Ostwestfalen-Lippe University of Applied Sciences, Lemgo,	China, Germany
11:10	11:30	Formation and properties of intermetallic compounds in an Al-Cu roll bonded connection	M.Sc. Eugen Hilz, u. a.	Robert Bosch GmbH, 71701 Schwieberdingen	Germany
11:30	11:50	Development of Tin-Seal Technology for Gold Reduction in Gold-Nickel Contacts	Dr. George J.S. Chou	TE Connectivity, Harrisburg, PA	USA
11:50	12:10	Yellowishing of Tin Coatings at elevated Temperatures	Dr. Isabell Buresch	Wieland Werke AG, 89070 Ulm	Germany
12:10	12:30	Analysis of temporal and spatial contact voltage fluctuation during fretting in automotive connectors	S. El Mossouess	University of Rennes, u. a.	France
12:30	13:30	**Lunch**			
		MATERIALS II/VACUUM AND REFRACTORY CONTACTS - Chairman: Dr. Slade	**Co-Chairman: Dr. Behrens**		
13:30	13:50	Contact Materials in Vacuum Switching – Challenges and Trends	W. Hartmann, N. Wenzel, S. Kosse	Siemens AG, Erlangen	Germany
13:50	14:10	Doped Cu/Cr vacuum interrupter contact material enables increased short-circuit interruption performance	R. A. Simon, D. Gentsch	ABB Corporate Research, Baden-Dättwil, u. a.	Switzerland, Germany
14:10	14:30	Correlation between microstructural features of the melt zone and switching behavior in CuCr contact material	K. von Klinski-Wetzel, u. a.	Institute for Applied Materials - Materials Science and Engineering, Karlsruhe + Plansee (CH)	Germany, Switzerland
14:30	14:50	Increase in contact resistance of vacuum interrupters after short-circuit testing	E. D. Taylor, u. a.	Siemens AG, Berlin, u. a.	Germany
14:50	15:10	The aging of the power contacts caused by switching current	P. Borkowski, u. a.	Department of Electrical Apparatus, Lodz University of Technology	Poland
15:10	15:30	USEFULNESS OF LAMINATED Cu-Mo-COMPOSITE AS A CONTACT MATERIAL FOR LOW VOLTAGE POWER	B. Miedzinski, u. a.	Institute of Innovative Technology EMAG, Katowice	Poland, Ukraine
15:30	16:00	**Coffee Break**			
16:00	17:00	**NICHTFACHLICHER VORTRAG**			
17:00	19:00	**POSTER SESSION**		**MEETING ADVISORY GROUP**	
19:00	22:00	**DINNER ADVISORY GROUP**			

Wednesday, June 25, 2014

Time		Title	Authors	von	Land
07:30	08:00	**Registration/Conference Office**			
		SLIDING CONTACTS/FRETTING - Chairman: Mrs. Sjogren	**Co-Chairman: Dr. Martin**		
08:00	08:20	Fretting and materials selection, in theory and practice	Åsa Kassman Rudolphi	Uppsala University, Uppsala	Sweden
08:20	08:40	Synthesis and tribo-electric characterization of copper-graphite-composites with interpenetrating microstructure for sliding contacts	Maren Klement, u. a.	Hochschule Aalen, Aalen	Germany
08:40	09:00	Nanoindentation analysis of cold welding effects in sliding contact systems	C. Holzapfel	Schleifring und Apparatebau GmbH, Fürstenfeldbruck	Germany
09:00	09:20	A wear tolerant slip-ring assembly with individual spring-wire brushes in a v-grooved metal-graphite ring	M. Grandin, u. a.	Tribomaterials group, Uppsala University	Sweden
09:20	09:40	The role of microstructure and surface topography in the electrical behaviour of Sn coated Cu contacts	K. Trinh, u. a.	Chair of Functional Materials, Saarland University, Saarbrücken	Germany, Chile
09:40	10:00	Effect of Arc Discharge on the Wear Profile of Cu impregnated Carbon Based Pantograph Contact Strip	Y.Kubota, u. a.	Railway Technical Research Institute, Tokyo	Japan
10:00	10:30	**Coffee Break**			
		RELIABILITY/ENVIRONMENTAL - Chairman: Dr. Runde	**Co-Chairman: Dr. Holzapfel**		
10:30	10:50	From fretting to connector vibration tests: a "transfer function" approach to predict the electrical contact resistance endurances	J. Laporte, u. a.	LTDS – Ecole Centrale de Lyon, 36 av Guy de Collongue – 69130 Ecully	France
10:50	11:10	Failure Analysis at Electrical Contacts in Information Technologies: Part 1: Techniques	Birgit Hagenhoff	Tascon Gmbh, Münster	Germany
11:10	11:30	Failure Analysis at Electrical Contacts in Information Technologies: Part 2: Examples	W. Schmitt	DODUCO GmbH, Pforzheim	Germany
11:30	11:50	The Effect of Induced Defects on Pore Corrosion	Rod Martens, u. a.	TE Connectivity, Middletown, PA 17057	USA
11:50	12:10	Reliability assessment and field failure predictions – a prognostic model for separable electrical contacts	F. Ostendorf, u. a.	Weidmueller Interface GmbH & Co. KG, Detmold	Germany
12:10	12:30	A Study on Effect of Small Relay Housing Seal on Contact Resistance at Inductive load	Kazuaki Miyanaga, u. a.	Fujitsu Component Limited	Japan
12:30	13:30	**Lunch**			
		MODELLING/SIMULATION - Chairman: Prof. Berger	**Co-Chairman: Herr Gehlert**		
13:30	13:50	Low voltage circuit breaker arc simulation including contact arm motion	Christian Ruempler, u. a.	Eaton, Moon Township	USA, Germany
13:50	14:10	Significance of thermal resistance of switching contacts for the temperature rise of circuit breakers	Mrs. D. Siegel, Dr. M. Anheuser	Siemens AG, Amberg	Germany
14:10	14:30	CONTROLLING THE REPULSIVE HOLM FORCE BETWEEN FIXED AND MOVING CONTACT MEMBERS IN A LOW VOLTAGE BREAKER	G. Eriksson, u. a.	ABB Corporate Research, Vasteras,	Sweden
14:30	14:50	Impact of inhomogeneous material description for punched edges on the force-fitting simulation of copper high current connectors	Ekine Aristizabal, u. a.	Robert Bosch GmbH, Schwieberdingen	Germany
14:50	15:10	A MATHEMATICAL APPROACH TO EVALUATE ARC IMMOBILITY TIME IN LOW VOLTAGE CIRCUIT BREAKERS	C.SANDHYA, u. a.	LARSEN &TOUBRO LIMITED, COIMBATORE	India
15:10	15:30	Thermal inertia of DC arcs at different contact material	M. Streck, F. Berger	TU Ilmenau	Germany
15:30	16:00	**Coffee Break**			
		POWER CONTACTS - Chairman: Prof. Lu	**Co-Chairman: Dr. Schöpf**		
16:00	16:20	Evaluation of Electrical Contacts Using an X-Ray CT 3D Visualisation Technique	Dr. Jonathan Swingler, u. a.	Heriot-Watt University, Edinburgh, UK.	UK
16:20	16:40	Effects of Temperature and Particle Orientation on the Electrical Conductivity of Heterogeneous Contact Materials	E. R. Crandall, u.a.	Doduco GmbH, Pforzheim	Germany
16:40	17:00	Development of a Novel Highly Conductive Aluminum Particle based Filler for Low Density Conductive Composites	D. Freckmann, u. a.	D. Freckmann, TE Connectivity, Menlo Park	USA, Germany
17:00	17:20	Analysis of Defects in welded Contact connections by the method of eddy Currents	Malamov, D.	Technical University of Sofia, Faculty of Electronics	Bulgaria
17:20	17:40	Impact of the Temperature-Induced Reduction of Joint Force on the Long Term Behavior of Contact Elements with Material-Allocated Electrical and Mechanical Function	M. Gatzsche, u. a.	Technische Universität Dresden, Multi-Contact AG,	Germany, Switzerland
17:40	18:00	Discriminate analysis of characteristics for arc based on statistical classification in panthograph-catenary system	Hui Lichuan, u. a.	Faculty of electrical and control Engineering Liaoning Technical University,Huludao	China
19:00	22:00	**CONFERENCE DINNER (incl. ALBERT-KEIL-CEREMONY)**			

Thursday, June 26, 2014

Time		Title	Authors	von	Land
07:30	08:00	**Registration/Conference Office**			
		New Technologies - Chairman: Prof. Inoue	**Co-Chairman: Herr Meckler**		
08:00	08:20	Time-current tripping characteristics at series arcing for Arc Fault Detection Devices	Jean-Mary Martel	Siemens AG, Regensburg	Germany
08:20	08:40	Arc Fault Detection - a Model Based Approach	Christian Strobl	E-T-A Elektrotechnische Apparate GmbH, Altdorf	Germany
08:40	09:00	Digital Closed Loop Control technology for the AC Contactors	Zhihong Xu, u. a.	College of Electrical Engineering and Automation, Fuzhou University, Fuzhou	China
09:00	09:20	Simulation-based Analysis of Inductance at Loosened Connector Contact Boundary	Tomoya Sato, u. a.	Tohoku University	Japan
09:20	09:40	Micro-contact Resistance of Au/Au on Engineered Contact Surfaces using Grayscale Lithography	Captain Christopher Stilson, u. a.	AFIT, Wright Patterson AFB, Ohio	USA
09:40	10:00	Lifetime Testing of a Development MEMS Switch Incorporating Au/MWCNT Composite Contacts	A. P. Lewis, u. a.	Electro-mechanical Engineering, University of Southampton, Southampton	UK, Malaysia
10:00	10:30	**Coffee Break**			
		Arc Interruption/Materials - Chairman: Prof. Ben Jemaa	**Co-Chairman: Prof. Großmann**		
10:30	10:50	THE INFLUENCE OF GASEOUS SPECIES ON THE DIELECTRIC RECOVERY PROPERTIES OF HIGH CURRENT ARCING GAPS	John J. Shea, Kelly A. Williams	Eaton Corporation	USA
10:50	11:10	Re-ignition and Post Arc Current Phenomena in Low Voltage Circuit Breaker	W. Hauer, u. a.	Eaton Industries (Austria) GmbH, Vienna	Austria, USA
11:10	11:30	Ablation-Assisted Current Interruption in a Medium Voltage Load Break Switch	Erik Jonsson, Magne Runde, Gaute Gjendal	NTNU Norwegian University of Science and Technology	Norway
11:30	11:50	Increased requirements on the switching behaviour of industrial switchgear caused by new high efficiency motors	Dr. Andreas Krätzschmar, u. a.	Siemens AG, Amberg	Germany
11:50	12:00	**Closing Session**			
12:00	13:00	**Lunch**			
13:00	19:00	**TECHNICAL PROGRAM**			