

2016 27th International Symposium on Discharges and Electrical Insulation in Vacuum (ISDEIV 2016)

**Suzhou, China
18-23 September 2016**

**Volume 1
Pages 1-388**



**IEEE Catalog Number: CFP16430-POD
ISBN: 978-1-5090-0320-4**

**Copyright © 2016 by the Institute of Electrical and Electronics Engineers, Inc
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

******This publication is a representation of what appears in the IEEE Digital Libraries. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP16430-POD
ISBN (Print-On-Demand):	978-1-5090-0320-4
ISBN (Online):	978-1-4673-9780-3
ISSN:	1093-2941

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

Table of Contents

001-DA-I-01.pdf	Research on Vacuum Insulation Properties - In situ Measurements and Surface Analysis - <i>S. Kobayashi</i>	1-8
002-A1-O-01.pdf	Optimum Breakdown Charge for Spark Conditioning in Vacuum under Non-uniform Electric Field <i>H. Kojima, T. Takahashi, M. Noda, K. Hasegawa, M. Sakaki, N. Hayakawa</i>	9-12
003-A1-O-02.pdf	Magnetic Field Effect on the Pulsed Breakdown Strength of Vacuum Gaps <i>S. Onischenko, E. V. Nefedtsev, D. I. Proskurovsky</i>	13-16
004-A1-O-03.pdf	The Influence of the Cathode Melted Layer on Vacuum Insulation <i>S. M. Li, Y. S. Geng, Z. Y. Liu, J. H. Wang</i>	17-20
005-A1-O-04.pdf	Optical Measurement for Particle Production in Vacuum Interrupter <i>K. Abe, H. Ejiri, S. Matsuoka, A. Kumada, K. Hidaka, T. Donen, M. Tsukima</i>	21-24
006-A1-O-05.pdf	Investigation of Discharge Characteristics and Optimized Insulator of a Miniature Penning Ion Source <i>S. M. Yan, F. Yan, K. X. Xiao</i>	25-28
007-A1-O-06.pdf	Study of Microscopic Electric Field on Contact Surface in Vacuum Interrupters Based on Fractal Theory <i>Y. Y. Zhang, Y. H. Fang, L. J. Jin, Y. W. Zhang</i>	29-32
008-A1-O-07.pdf	Distribution of High-Voltage and High Frequency Impulse Breakdown Sparks in Conditioned Contact Surface <i>X. S. Zhai, W. Zhang, X. F. Yao, Y. J. Guo, J. H. Wang, Y. S. Geng, Z. Y. Liu</i>	33-36
009-A1-P-01.pdf	Plasma Expansion in Vacuum Gap: Three-Fluid Hydrodynamic Simulation <i>E. V. Nefedtsev, A. V. Batrakov</i>	37-40
010-A1-P-02.pdf	Prediction of Lightning Impulse Voltage Induced Breakdown in Vacuum Interrupters <i>N. Marconato, A. D. Lorenzi, N. Pilan, P. Bettini, A. Lawall, N. Wenzel</i>	41-44
011-A1-P-03.pdf	Field Electron Emission from Metal Surfaces Irradiated with Helium Plasmas <i>D. Hwangbo, S. Kajita, N. Ohno, D. N. Sinelnikov</i>	45-48
012-A1-P-04.pdf	Voltage Conditioning Effect on CuCr Contacts <i>S. Lagotzky, H. Schellekens, A. Papillon, G. Müller</i>	49-52
013-A1-P-05.pdf	A Mechanism Transition Between Two Consecutive Breakdowns at Short Rod-Plane Vacuum Gap <i>S. M. Li, X. J. Huang, Y. S. Geng, Z. Y. Liu, J. H. Wang</i>	53-56
014-A1-P-06.pdf	Cathode Spot Plasma Parameters in the Breakdown Stage of Vacuum Discharge <i>A. V. Batrakov, S. A. Popov, E. L. Dubrovskaya</i>	57-59
015-A1-P-07.pdf	Characteristics of Vacuum Breakdown Field and Comparison of Field Enhancement Factor β in CuCr Electrodes with Slit Configuration <i>Kazuki Sato, Y. Yamano, N. Asari, T. Shioiri, T. Icikawa</i>	60-63
016-A1-P-08.pdf	Short Pulse Dielectric Strength of Vacuum Gaps with Different Electrode Materials <i>S. Onischenko, A. Grenadyorov, K. Oskomov, E. V. Nefedtsev, A. V. Batrakov</i>	64-67

017-A1-P-09.pdf	Vacuum Breakdown from Nanostructured Fuzzy Surfaces <i>D. N. Sinelnikov, D. G. Bulgadaryan, D. Hwangbo, S. Kajita, D. V. Kolodko, V. A. Kurnaev, N. Ohno</i>	68-71
018-A1-P-10.pdf	Simultaneous Measurement of High and Low Frequency Pre-Breakdown Currents on HV Vacuum Interrupters <i>B. Surges, V. Hinrichsen, E. D. Taylor</i>	72-75
019-A1-P-11.pdf	A Simple Criterion of the Vacuum Breakdown Threshold <i>A. V. Batrakov</i>	76-78
020-A1-P-12.pdf	On the Polaron Nature of the Initial Stage of a High-voltage Vacuum Discharge <i>Y. A. Barenholts, S. Beril, S. A. Barenholts</i>	79-82
021-A1-P-13.pdf	Lightning Impulse Voltage Breakdown Characteristics of Vacuum Interrupters with Different Contact Materials <i>Y. Y. Zhang, X. Y. Xu, L. J. Jin, Y. W. Zhang</i>	83-86
022-A1-P-14.pdf	Research on the Field Emission Current in Contact Conditioning with Different Electric Field <i>W. G. Feng, Q. Wang, Z. Y. Liu</i>	87-89
023-A1-P-15.pdf	Characteristics of Modification Effect of Nonlinear Composites on Nonuniform Electrical Fields in Vacuum <i>G. Q. Yang, Y. Guo, Q. W. Zhang, D. Y. Wang</i>	90-93
024-A2-O-01.pdf	Investigation on Surface Charge Distribution inside of Cylindrical Alumina Insulator of Vacuum Bulb under AC Voltage Application <i>H. Fukuda, K. Ishikawa, K. Yamamura, A. Sano, R. Yoshida, Y. Yamano, O. Yamamoto</i>	94-97
025-A2-O-02.pdf	Investigation on Surface Flashover Characteristics of the Insulator with Different Transformer Oil Coating Conditions in Vacuum <i>F. Li, J. H. Jiang, L. Xu, J. J. Kang, M. Wang</i>	98-101
026-A2-P-01.pdf	Flashover Time Delay Characteristics of Grooved Insulators under Nanosecond Pulse Voltage in Vacuum <i>G. Q. Su, B. P. Song, Y. B. Wang, H. B. Mu, G. J. Zhang</i>	102-105
027-A2-P-02.pdf	Energy Distributions and Angular Distributions of Pulsed Plasmas Based on Vacuum Surface Flashover <i>X. Wan, L. Chen, D. Z. Jin, W. Xiang, X. H. Tan</i>	106-109
028-A2-P-03.pdf	Surface Discharge Detection of External Insulation of Outdoor Vacuum Circuit Breaker Based on Ultraviolet Imaging <i>X. W. Li, L. J. Jin, J. Cai, H. Z. Shi</i>	110-113
029-A2-P-04.pdf	Influence of Coating to Surface Flashover Characteristics of Alumina Ceramics in Vacuum <i>N. Asari, W. Sakaguchi, T. Shioiri, J. Kondo, K. Wada</i>	114-117
030-A2-P-05.pdf	On Formation of Ion Flow of Pulsed Vacuum Flashover Discharge <i>Yu. A. Zemskov, I. L. Muzyukin</i>	118-120
031-B1-O-01.pdf	Investigation of Current Breaking Capacity of Vacuum Interrupters with Focus on Contact Material Properties with the Help of a Reference Model Vacuum Circuit Breaker <i>A. Feilbach, U. Hauf, M. Böning, V. Hinrichsen, M. Heilmaier, F. E. H. Müller</i>	121-124

032-B1-O-02.pdf	Opening Velocity Characteristics for Vacuum Interrupters with Cup-type Axial Magnetic Field Contacts <i>X. F. Yao, J. H. Wang, Y. S. Geng, X. S. Zhai, Z. Y. Liu</i>	125-128
033-B1-O-03.pdf	Impact of AC and Pulsed DC Interrupting Currents on the Formation of High-Current Anode Modes in Vacuum <i>A. Khakpour</i>	129-132
034-B1-O-04.pdf	Surface Temperature Measurement of Transversal Magnetic Field Contacts Using a Thermography Camera <i>T. Pieniak, M. Kurrat, D. Gentsch</i>	133-136
035-B1-O-05.pdf	Investigation of the Heat Affected Volume of CuCr Contact Material for Vacuum Interrupters <i>U. Hauf, A. Feilbach, M. Böning, M. Heilmaier, V. Hinrichsen, F. E. H. Müller</i>	137-140
036-B1-P-01.pdf	The Influence of Current Interruption Operations on Internal Pressure in Vacuum Interrupters <i>M. Weuffel, D. Gentsch, G. Nikolic, A. Schnettler</i>	141-144
037-B1-P-02.pdf	Research on Controlled Switching in Reducing Unloaded Power Transformer Inrush Current Considering Circuit Breaker's Prestrike Characteristics <i>W. Li, C. E. Fang, B. D. Zhang, P. Xie, X. Ren, Y. Luo</i>	145-148
038-B1-P-03.pdf	Prestriking Characteristics when Switching on Inrush Current in 40.5kV VIs <i>H. Q. Wang, X. Y. Li, Y. S. Geng, Z. Y. Liu, Y. C. Li, J. Y. Lin</i>	149-152
039-B1-P-04.pdf	The Current Commutation Characteristics of DC Micro-Grid Hybrid Circuit Breakers <i>J. Q. Huang, G. W. Ge, M. F. Liao, X. Y. Duan, L. Pu, J. Y. Zou</i>	153-156
040-B1-P-05.pdf	A Novel Post-arc Current Measuring Equipment Based on Vacuum Commutation and Arc Blow <i>G. W. Ge, M. F. Liao, X. Y. Duan, J. Q. Huang, J. Y. Zou</i>	157-160
041-B1-P-06.pdf	Dependence of the Chopping Current Level of a Vacuum Interrupter on Parallel Capacitance <i>E. Lindell, L. Liljestrand, E. Dullni</i>	161-164
042-B1-P-07.pdf	Performance of Axial Magnetic Field Vacuum Interrupters at Various Transient Recovery Voltages and Contact Gaps <i>E. D. Taylor, J. Genzmer</i>	165-168
043-B1-P-08.pdf	Determination of Opening Velocities for Vacuum Circuit Breakers at Transmission Voltage <i>X. F. Yao, J. H. Wang, Y. S. Geng, Z. Y. Liu, X. S. Zhai</i>	169-172
044-B1-P-09.pdf	Analysis on Vibration and Acoustic Joint Mechanical Fault Diagnosis of High Voltage Vacuum Circuit Based on Wavelet Packet Energy Relative Entropy <i>C. G. Hou, Y. L. Li, Y. D. Cao, J. Li, Y. C. Cao</i>	173-176
045-B1-P-10.pdf	Research on Fault Diagnosis of Operating Mechanism for 12kV Vacuum Circuit Breaker based on PSO-LSSVM <i>C. G. Hou, H. L. Jiang, Y. D. Cao, C. X. Lai, Y. C. Cao</i>	177-180
046-B1-P-11.pdf	Study on High Frequency Current Interruption Characteristics of Vacuum Circuit Breaker <i>K. Kojima, R. Oshiro, E. Kaneko</i>	181-184
047-B1-P-12.pdf	Simulation Analysis of the 126kV Three-break Vacuum Circuit Breaker with Phase-control Method Used in Capacitive Interrupting	185-188

	<i>B. Liu, C. H. Zhang, S. X. Xiu</i>	
048-B1-P-13.pdf	Investigation of Welding Characteristics and NSDD Probabilities of Different Contact Materials under Capacitive Load Conditions <i>G. A. Kumichev, I. N. Poluyanova</i>	189-192
049-B2-O-01.pdf	Method to Determine Rotation Velocity of Constricted Vacuum Arcs Driven by Transverse Magnetic Field <i>H. Ma, Z. Q. Zhang, S. Ferrari, J. H. Wang, Y. S. Geng, Z. Y. Liu</i>	193-196
050-B2-O-02.pdf	Research on Influence of the Magnetic Arc Blow in Multi-break Vacuum Circuit Breakers <i>G. W. Ge, M. F. Liao, X. Y. Duan, J. Q. Huang, L. Pu, J. Y. Zou</i>	197-200
051-B2-O-03.pdf	Experimental and Simulation of Triggered Vacuum Arc under TMF-AMF Contact <i>J. Deng, L. J. Wang, K. Qin, X. Zhang, S. L. Jia, Z. Q. Shi</i>	201-204
052-B2-O-04.pdf	Effective Arcing Contact Gap of a 126 kV Horseshoe Type Axial Magnetic Field Vacuum Interrupter <i>H. M. Li, Y. S. Geng, Z. Y. Liu, C. H. Shen, P. Li, Z. Yang</i>	205-208
053-B2-P-01.pdf	Simulation of External Magnetic Flux Density of Moving Arcs in Vacuum Bottles <i>H. Janssen, V. Hinrichsen, T. Rettenmaier, E. D. Taylor</i>	209-212
054-B2-P-02.pdf	A Model of Vacuum Arc Cathode Spot Motion in an Oblique Magnetic Field <i>I. I. Beilis</i>	213-215
055-B2-P-03.pdf	Investigation of Arc Ignition Modes for Drawn Vacuum Arc with Axial Magnetic Field (AMF) <i>D. Y. Feng, S. X. Xiu, Y. Wang, Ting Wang, Z. X. Liu</i>	216-219
056-B2-P-04.pdf	Experimental Investigation on the Current of Cathode Spot of Vacuum Arc in Axial Magnetic Fields <i>B. Z. Wu, Z. Q. Shi, C. Wang, S. L. Jia, L. J. Wang</i>	220-222
057-B2-P-05.pdf	Influence of Magnetic Fields on Inrush Current Prestrike Arc Behaviors of Vacuum Interrupters <i>Y. X. Yu, Z. Y. Liu, Y. Geng, Y. S. Geng, J. H. Wang</i>	223-226
058-B2-P-06.pdf	Drawn Vacuum Arc Behaviors of 1/2 Coil-type Axial Magnetic Field Contact <i>X. S. Zhai, S. Kulkarni, X. F. Yao, V. K. Acharya, M. Hemachander, W. Zhang</i>	227-230
059-B2-P-07.pdf	Anode Spot Threshold Current of Four Pure Metals Subjected to Axial Magnetic Field in Vacuum Arcs <i>Z. Q. Zhang, H. Ma, Y. T. Zhang, X. L. Yi, Z. Y. Liu, X. J. Wang, G. Li, W. B. Wang</i>	231-234
060-B2-P-08.pdf	Experimental Investigation on the Influence of Axial Magnetic Field on the Lifetime of Cathode Spot of Vacuum Arc <i>C. Wang, Z. Q. Shi, B. Z. Wu, S. L. Jia, L. J. Wang</i>	235-238
061-B2-P-09.pdf	Experimental Investigation on the Dynamic of Cathode Spot of Vacuum Arc in External Transverse Magnetic Field <i>C. Wang, Z. Q. Shi, B. Z. Wu, S. L. Jia, L. J. Wang</i>	239-242
062-B2-P-10.pdf	Investigation on the Influence of Axial Magnetic Field on Anode Melting in High-Current Vacuum Arc <i>D. G. Yang, S. L. Jia, L. J. Wang, Z. Q. Shi</i>	243-246

063-B2-P-11.pdf	Influence of Axial Magnetic Field on Cathode Plasma Jets in High-Current Vacuum Arc <i>D. G. Yang, S. L. Jia, Z. Q. Shi, L. J. Wang</i>	247-250
064-B2-P-12.pdf	Simulation Research of the Electromagnetic Characteristic of Vacuum Arc <i>C. Xiang, Z. H. Huang, J. Y. Zou</i>	251-254
065-B2-P-13.pdf	Temperature Measurement and Arc Rotation Observation of Spiral-type Contact <i>T. Donen, J. Abe, M. Tsukima, Y. Takai, S. Miki, S. Ochi</i>	255-258
066-B3-O-01.pdf	Spectrally and Spatially Resolved Imaging of an Anode Flare in the Initial Stage of a Vacuum Arc Discharge <i>R. Methling, S. A. Popov, A. V. Batrakov, D. Uhrlandt</i>	259-262
067-B3-O-02.pdf	Numerical Simulation of HCVA with Considering the Micro Process of Anode Vapor <i>X. L. Huang, L. J. Wang, X. Zhang, S. L. Jia, Z. Q. Shi</i>	263-266
068-B3-O-03.pdf	Phenomenological Approach to Simulation of Propagation of Spots over Cathodes of High-Power Vacuum Circuit Breakers <i>M. D. Cunha, N. Wenzel, M. S. Benilov, W. Hartmann</i>	267-270
069-B3-O-04.pdf	Temporal Spot Motion of a Multispot Phenomenon on the Cathode Surface in a Vacuum Arc <i>L. Yang, L. Chen, Y. Dong, F. Yan, D. Z. Jin, X. H. Tan</i>	271-274
070-B3-O-05.pdf	Comparison of Methods of Electrode Temperature Determination in High-Current Vacuum Arcs <i>R. Methling, St. Franke, S. Gortschakow, M. Abplanalp, R.-P. Sütterlin, T. Delachaux, K. O. Menzel</i>	275-278
071-B3-O-06.pdf	Optical Investigation of Constricted Vacuum Arcs <i>M. Abplanalp, K. O. Menzel, T. Delachaux, R.-P. Sütterlin, F. Kassubek</i>	279-282
072-B3-O-07.pdf	Simulation of Thermal Instability in Non-Uniformities on the Surface of Cathodes of Vacuum Arcs <i>M. D. Cunha, M. S. Benilov, W. Hartmann, N. Wenzel</i>	283-286
073-B3-O-08.pdf	Time and Space Resolved Video Spectroscopy of the Vacuum Arc during the Formation of High-Current Anode modes <i>A. Khakpour, S. Gortschakow, S. A. Popov, R. Methling, St. Franke, D. Uhrlandt, A. V. Batrakov, K.-D. Weltmann</i>	287-290
074-B3-O-09.pdf	Vacuum Arc and Characteristics of Arc Voltage in Curved Surface Contact <i>W. L. Huo, J. W. Wu, B. W. Jia</i>	291-294
075-B3-P-01.pdf	Anode Temperature Evolution in a Vacuum Arc with a Black Body Electrode Configuration <i>I. I. Beilis, Y. Koulik, R. L. Boxman</i>	295-297
076-B3-P-02.pdf	Electron Temperature and Electron Density of Copper Vacuum Arc in Diffuse Arc Mode and Anode Spot Arc Mode <i>Y. T. Zhang, X. L. Yi, Z. Q. Zhang, Z. Y. Liu, Y. S. Geng, J. H. Wang, W. B. Wang, G. Li, X. J. Wang</i>	298-301
077-B3-P-03.pdf	Experimental Study of Anode Surface Temperature After Current Zero for a Range of Current Levels <i>A. Chaly, I. N. Poluyanov, V. V. Yakovlev, K. Zabello, A. Logatchev, S. Shkol'nik</i>	302-305

078-B3-P-04.pdf	Ion Charge State Distribution in Vacuum Arc Plasmas for Composite Sn-Pb Cathodes <i>V. P. Frolova, A. G. Nikolaev, E. M. Oks, G. Yu. Yushkov</i>	306-308
079-B3-P-05.pdf	Numerical Simulation of Plasma Expansion at Different Rates of Current Rise in the Spark Stage of a Vacuum Arc <i>D. L. Shmelev, S. A. Barengolts, M. M. Tsventoukh</i>	309-312
080-B3-P-06.pdf	On the Formation of the Angular Distribution of Ions of Different Species in a Plasma Jet of a Vacuum Arc with Composite Cathode <i>D. L. Shmelev, S. A. Barengolts, M. M. Tsventoukh, I. V. Uimanov</i>	313-316
081-B3-P-07.pdf	Simulation on Dynamic Arc-before Process of Large Current Vacuum Breaking <i>J. Li, G. Yang, Z. W. Cui, Y. D. Cao, X. M. Fan</i>	317-320
082-B3-P-08.pdf	The Autograph Method for Investigation Arcs in Vacuum and in Gases at Threshold Currents <i>A. M. Murzakaev</i>	321-324
083-B3-P-09.pdf	Modeling and Simulation of Mixing and Interaction of Multi-cathode Spot Vacuum Arc Jets <i>K. Qin, L. J. Wang, J. Deng, S. L. Jia</i>	325-328
084-B3-P-10.pdf	Simulation of Surface Erosion of Anode under High-current Vacuum Arcs <i>Y. B. Tian, Z. X. Wang, Y. J. Jiang, H. Ma, Z. Y. Liu, Y. S. Geng, J. H. Wang</i>	329-332
085-B3-P-11.pdf	The Characteristics of Cathode Spots in Removing Oxide Layer on Metal Surface by Vacuum Arc <i>W. H. Li, Z. Q. Shi, F. Shi, S. L. Jia, L. J. Wang</i>	333-336
086-B3-P-12.pdf	Study on the Proportions of Charged Particles Absorbed by Post-arc Anode in the Post-arc Phase of a Vacuum Circuit Breaker <i>Y. P. Mo, Z. Q. Shi, S. L. Jia, L. J. Wang</i>	337-340
087-B3-P-13.pdf	Investigation of the Dynamics of High-Current Vacuum Arc Luminosity <i>S. V. Klochko, A. A. Logachev, I. N. Pohuyanova</i>	341-344
088-B3-P-14.pdf	Effect of Nanostructured Layer Thickness on Tungsten Surface on Cathode Spots Dynamics <i>S. A. Barengolts, M. M. Tsventoukh, S. Kajita, D. Hwangbo, N. Ohno</i>	345-348
089-B3-P-15.pdf	2D Semiempirical Model of the Formation of an Elementary Crater on the Cathode of a Vacuum Arc <i>G. A. Mesyats, I. V. Uimanov</i>	349-352
090-B3-P-16.pdf	Model of the Formation of an Elementary Crater on the CuCr Cathode of a Vacuum Interrupters <i>I. V. Uimanov, D. L. Shmelev, S. A. Barengolts</i>	353-356
091-B3-P-17.pdf	Simulation of the Hydrogen Isotope Desorption in the Cathode Spot of a Vacuum Arc with a ZrDx Cathode <i>I. V. Uimanov, D. L. Shmelev, S. A. Barengolts</i>	357-360
092-B3-P-18.pdf	Plasma Source for Mass Separation Facilities <i>V. L. Paperny, N. V. Astrakhansev, N. V. Lebedev, V. I. Krasov, G. Yu. Yushkov</i>	361-363
093-B3-P-19.pdf	The Experimental Investigation of a Charged Particle Flows in a Submicrosecond Vacuum Arc at a Threshold Current	364-367

	<i>Yu. A. Zemskov, I. L. Muzyukin</i>	
094-B3-P-20.pdf	Investigation of the Mass-charge Composition of Cathode Material Ions in the Low-current Vacuum Arc Plasma <i>Yu. A. Zemskov, I. V. Uimanov</i>	368-370
095-B3-P-21.pdf	The Spectroscopy of Cathode Spot of Pulsed Vacuum Arc Discharge in a Wide Range of Current <i>S. A. Popov, R. Methling, A. Kanonykhin</i>	371-374
096-B3-P-22.pdf	Fast Video Registration of Transition Processes from Diffuse Mode to Anode Spot Mode in High-Current Arc with Copper-Chromium Electrode <i>S. A. Popov, A. V. Schneider, V. Lavrinovich, A. V. Batrakov, S. Gortschakow, A. Khakpour</i>	375-378
097-B3-P-23.pdf	Erosion Rate in a Vacuum Arc and in a Gas Arc at Threshold Currents <i>A. M. Murzakaev</i>	379-382
098-B3-P-24.pdf	On the Plasma Parameters in Model of Liquid Jet Explosion for the Ecton Processes Sustainment <i>M. M. Tsvetoukh</i>	383-384
099-B3-P-25.pdf	Pulsed Processes in Vacuum Discharge Cathode Spot Explosive Electron Emission Cells <i>M. M. Tsvetoukh, S. A. Barenholts, I. V. Uimanov, D. L. Shmelev, G. A. Mesyats</i>	385-388
100-B4-O-01.pdf	3D Simulation on Vacuum Arc Controlled By External Transverse Magnetic Field <i>J. Deng, L. J. Wang, K. Qin, X. Zhang, S. L. Jia</i>	389-392
101-B4-O-02.pdf	The Influence from the Residual Magnetic Field on the Plasma Dissipation in the Post-arc Phase in a Vacuum Interrupter <i>H. R. Wang, Z. P. Zhou, Y. B. Tian, Z. X. Wang, Z. Y. Liu, Y. S. Geng, J. H. Wang</i>	393-396
102-B4-O-03.pdf	Simulation of Capacitive Switching Behavior for Vacuum Circuit Breaker <i>M. Kurrat</i>	397-400
103-B4-O-04.pdf	Simulation on Breakdowns in the Post-arc Phase of a Vacuum Interruption <i>Z. X. Wang, H. R. Wang, Y. J. Jiang, L. Q. Sun, J. H. Wang, Y. S. Geng, Z. Y. Liu</i>	401-404
104-B4-O-05.pdf	Detailed Numerical Simulation of Cathode Spots in High-Current Vacuum Arcs <i>H. Kaufmann, M. D. Cunha, M. S. Benilov, W. Hartmann, N. Wenzel</i>	405-408
105-B4-P-01.pdf	Study of Kinematic Arc Simulations for Arc Motion Detection Using External Coils <i>R. K. Bhat, S. Kulkarni, S. V. Kulkarni, M. Hemachander</i>	409-412
106-B4-P-02.pdf	AMF Electrode Diameter Simulation for HV Vacuum Interrupter <i>Z. Wang</i>	413-416
107-B4-P-03.pdf	Simulation on the High Current Interruption Principle for Hybrid Circuit Breaker of Vacuum Interrupter and CO ₂ Gas Interrupter <i>Z. Q. Chen, X. Cheng, L. Y. Jiao, G. W. Ge</i>	417-420
108-B4-P-04.pdf	2D PIC-DSMC Simulation of Gas Breakdown in Micrometer Scale Gaps <i>A. Xu, D. Z. Jin, L. Chen, X. H. Tan</i>	421-424
109-B4-P-05.pdf	Thermal Modelling of a Brazing Process of Vacuum Interrupters	425-428

	<i>S. Aranaga, J. Izcara, L. D. Río, H. Vallejo, M. Seco</i>	
110-B4-P-06.pdf	Research of the Chaos Characteristic of the Vacuum Circuit Breaker with Coupled Physical Field Simulation <i>Y. Han, W. X. Shang, Y. D. Cao, X. M. Liu</i>	429-432
111-B4-P-07.pdf	Numerical Simulation of High-Current Vacuum Arc in External Magnetic Field with Ion Sticking Probability Depending on the Incident Angle <i>D. L. Shmelev, V. I. Oreshkin, I. V. Uimanov</i>	433-436
112-B4-P-08.pdf	Prediction of Synchronous Closing Time on Permanent Magnet Actuator for Vacuum Circuit Breaker based on PSO-BP <i>C. G. Hou, X. Yu, Y. D. Cao, C. X. Lai, Y. C. Cao</i>	437-440
113-B4-P-09.pdf	Insulation Analysis and Improvement of 12kV Solid-Insulated Ring Main Units <i>C. G. Hou, Q. H. Li, Y. Han, Y. H. Gao, Y. D. Cao</i>	441-444
114-B4-P-10.pdf	Multiple Shield Arrangements Breakdown Model in Vacuum Interrupters <i>B. Kuehn, M. Kurrat, M. Hilbert, D. Gentsch</i>	445-448
115-B4-P-11.pdf	Design and Research of High Stability Repulsion Mechanism of 12kV Vacuum Circuit Breaker <i>C. G. Hou, J. J. Wang, Y. Han, Y. D. Cao, Y. C. Cao</i>	449-452
116-B4-P-12.pdf	Modeling of High Frequency Transients of Vacuum Circuit Breaker Switching Transformers in Offshore Wind Parks <i>Y. Xiao, C. E. Fang, W. Li, B. D. Zhang, X. Ren, Y. Luo</i>	453-456
117-B4-P-13.pdf	Multi Physical Field Simulation of Medium Voltage Switchgear and Optimal Design <i>L. H. Wang, L. J. Wang, X. L. Li, J. Lin, W. S. Zheng, S. L. Jia</i>	457-460
118-B4-P-14.pdf	Simulation and Analysis of A HVDC Vacuum Circuit Breaker Based on Artificial Current Zero <i>Q. S. Wang, Z. Q. Shi, Y. K. Zhang, S. L. Jia, L. J. Wang</i>	461-464
119-B4-P-15.pdf	Investigation on Dielectric Recovery Strength for the DC-VCB with Multi-breaks <i>C. Y. Huang, X. M. Liu, H. Chen, Z. Y. Shan</i>	465-468
120-B4-P-16.pdf	Analysis of Anode Thermal Process of High-current Vacuum Arc <i>C. Xiang, Z. H. Huang, J. Y. Zou</i>	469-472
121-B4-P-17.pdf	Design Parameter Optimization of a 126 kV Horseshoe Type Axial Magnetic Field Vacuum Interrupter <i>H. M. Li, Z. H. Wang, Y. S. Geng, Z. Y. Liu, Y. L. Zhang, Fang Zhao</i>	473-476
122-B4-P-18.pdf	Study on Temperature-rise of a 72.5kV Vacuum Circuit Breaker for the Higher Rated Current <i>W. H. Lee, J. H. An, Y. J. Kim, J. C. Lee</i>	477-480
123-B5-O-01.pdf	Experiment Measuring the Energy Deposition and Expansion Rate of Exploding Copper Wires in Vacuum Using Negative Polarity Current <i>Y. J. Shi, Z. Q. Shi, K. Wang, S. L. Jia</i>	481-484
124-B5-P-01.pdf	Experimental Investigation of Electrode Erosion of Triggered Spark Gap <i>W. Zhong, Y. L. Liu, A. Xu, S. H. Shang, D. Z. Jin</i>	485-488
125-B5-P-02.pdf	Energy Deposition in Electrical Explosion of Silver Wire in Vacuum <i>K. Wang, Z. Q. Shi, Y. J. Shi, S. L. Jia</i>	489-492
126-B5-P-03.pdf	Analysis of Breakdown Characteristic of Triple-Electrode Switch in Vacuum <i>N. Wu, X. M. Liu, H. Chen, Y. Y. Zhan</i>	493-496

127-C1-O-01.pdf	The Design of a 245kV Vacuum Circuit Breaker <i>L. T. Falkingham, K. W. Cheng, W. J. Molan</i>	497-500
128-C1-O-02.pdf	Investigation on the High Current Interruption Principle for Series Gaps of Vacuum Gap and CO ₂ Gas Gap <i>X. Cheng, Z. Q. Chen, G. W. Ge, L. Y. Jiao</i>	501-504
129-C1-O-03.pdf	Discharge Pattern Discrimination for Composite Insulation System in Vacuum Interrupter <i>F. Kong, H. Kojima, T. Kimura, M. Tsukima, N. Hayakawa</i>	505-508
130-C1-O-04.pdf	Comparative Study between Cu and CuCr Electrode Using Two-Dimensional Particle Density Image over Vacuum Arc Discharge <i>Y. Inada, T. Kamiya, S. Matsuoka, A. Kumada, H. Ikeda, K. Hidaka</i>	509-512
131-C1-O-05.pdf	Performance of Vacuum Interrupters in Electrical Power Systems With an Effectively Earthed Neutral <i>E. D. Taylor, J. Oemisch, M. Eiselt, M. Hinz</i>	513-516
132-C1-O-06.pdf	The Effect of Contact Support Material on Magnetic Field and Breakdown of Vacuum Interrupter <i>M. Li, X. Q. Wang, W. Y. Li, X. M. Zhang</i>	517-520
133-C1-O-07.pdf	A DC Vacuum Circuit Breaker Module Based on a Rapid Actuator With Linkage Commutation <i>W. L. Dong, J. Y. Zou, Y. X. Wang</i>	521-524
134-C1-O-08.pdf	The Self Actuating Vacuum Interrupter (SAVI): A New Concept in Vacuum Interrupter Technology <i>L. T. Falkingham, W. J. Molan</i>	525-528
135-C1-O-09.pdf	Modeling and Simulation of Magnetron Discharges inside a Vacuum Interrupter as a Method to Analyze the Vacuum Status <i>K. Hencken, T. Kaufmann, D. Gentsch, T. Delachaux</i>	529-532
136-C1-P-01.pdf	Short-Circuit Current Interruption in Liquid Nitrogen Environment <i>K. Golde, V. Hinrichsen, D. Gentsch, A. Lawall, E. D. Taylor</i>	533-536
137-C1-P-02.pdf	Study on the Transverse Burning Action to Contact Shield During High-Current Vacuum Interruptions in a Solid Insulated Switchgear <i>G. W. Kong, J. Wei, J. S. Liang, H. Q. Wang, X. Y. Li</i>	537-540
138-C1-P-03.pdf	A New Axial Magnetic Field Contact Three-quarters of Coil for High-voltage Vacuum Interrupter and Its Properties <i>X. M. Zhang, X. Q. Wang, Q. Guan, M. Li</i>	541-544
139-C1-P-04.pdf	Influence of Design Parameters on Electro-Magnetic Repulsion Mechanism Performance <i>L. C. Zhang, K. Yang, Z. Y. Liu, Y. S. Geng, J. H. Wang</i>	545-548
140-C1-P-05.pdf	Investigation on Information Monitoring Technology for Intelligent Vacuum Circuit Breaker <i>Z. H. Liu, X. Y. Duan, M. F. Liao, J. Y. Zou, G. W. Ge, G. X. Lv</i>	549-552
141-C1-P-06.pdf	Research on Breaking Capability of Triggered Vacuum Switch for Controlled Reclosing <i>Z. H. Huang, S. K. Wang, J. Y. Zou</i>	553-556
142-C1-P-07.pdf	Design and Experimental Investigation on the Electromagnetic Repulsion Mechanism of High Speed Vacuum Disconnect Switch <i>W. G. Wu, C. E. Fang, W. Li, B. D. Zhang, X. Ren, Y. Luo</i>	557-560

143-C1-P-08.pdf	Investigation on Breaking Characteristic of Hybrid DC Switch for DC Micro-grid <i>M. F. Liao, S. Y. Wang, G. W. Ge, J. Q. Huang, X. Y. Duan</i>	561-564
144-C1-P-09.pdf	Experiment and Simulation Research on Mechanical Characteristic of Vacuum Circuit Breaker <i>X. L. Duan, Ting Wang, H. S. Ye, D. Y. Feng, M. Fan, S. X. Xiu</i>	565-568
145-C1-P-10.pdf	Research on Anatomical Observation and Ablation Conditions of Vacuum Interrupter with Different Service Years <i>W. Q. Mao, Ting Wang, X. L. Duan, Y. Wang, S. F. Wu, S. X. Xiu</i>	569-572
146-C1-P-11.pdf	Simulation on the Electric Field Distribution for Hybrid Circuit Breaker Based on Vacuum Gap and CO ₂ Gas Gap <i>X. Cheng, L. Y. Jiao, Z. Q. Chen</i>	573-576
147-C1-P-12.pdf	Investigation of Current Conditioning Process for Vacuum Interrupters <i>X. Godechot, S. Chakraborty, A. Papillon, B. Berthon, C. Triaire</i>	577-580
148-C1-P-13.pdf	Model for the Welding of Axial Magnetic Field Vacuum Interrupter Contacts <i>E. D. Taylor, A. Lawall, P. G. Slade</i>	581-584
149-C1-P-14.pdf	Lightning Impulse Voltage Conditioning of different electrode gaps in High Voltage Vacuum Interrupters <i>S. Kulkarni, H. Masilamani, S. Chaudhari, P. Shanker</i>	585-588
150-C1-P-15.pdf	A New Copper Based Hermetic Sealing Material: A Comparison with AgCu ₂₈ GeCo _{0.3} <i>S. Hildebrandt, G. Wiehl</i>	589-592
151-C1-P-16.pdf	Research on Structure Design of 12kV Rotation Disc Vacuum Interrupter <i>Y. C. Cao, S. X. Liu, J. Li, P. Sun</i>	593-596
152-C1-P-17.pdf	Investigation on Phasing Controlled Vacuum Circuit Breaker for Switching Overvoltage of 110kV Power System <i>F. Zhang, Y. Lv, X. Y. Duan, M. F. Liao, J. Y. Zou</i>	597-600
153-C1-P-18.pdf	Determination of Equivalent Capacitors in a Double-break Vacuum Circuit Breaker Based on an Impulse-voltage Method <i>B. J. Zhang, X. F. Yao, P. Liu, J. H. Wang, Y. S. Geng, Z. Y. Liu</i>	601-604
154-C1-P-19.pdf	Non-Destructive Gas Pressure Measurement in Compact Sealed Electronic Vacuum Devices by Penning-type Discharge <i>F. Yan, D. Z. Jin, L. Chen, X. Wan, K. X. Xiao</i>	605-606
155-C1-P-20.pdf	The Effect of Ceramic Metallization Process on the Performance of Vacuum Interrupter <i>G. Y. Zhang, M. L. Wen, M. Li, X. Q. Wang, R. Yu</i>	607-610
156-C1-P-21.pdf	Development of Diagnostic Methods for Vacuum Leakage from Vacuum Interrupter by Partial Discharge Detection <i>S. Yokomichi, M. Kozako, M. Hikita, Kazuhiro Sato, T. Moriyama, H. Urai, T. Nakaoka, K. Tsuchiya</i>	611-614
157-C1-P-22.pdf	The Return of Permanent Gas Pressure in Sealed Vacuum Interrupters <i>R. Reeves, L. T. Falkingham</i>	615-618
158-C1-P-23.pdf	The Influence of Temperature on Internal Pressure in Vacuum Interrupters in a Liquid Nitrogen Environment <i>M. Weuffel, D. Gentsch, G. Nikolic, A. Schnettler</i>	619-622
159-C1-P-24.pdf	Magnetic Field Analysis of Hybrid AMF-TMF Contact for VI	623-626

	<i>Q. F. Qian, X. M. Liu, H. Chen, C. Y. Huang, R. Chen</i>	
160-C1-P-25.pdf	Co-Simulation on the Optimization Design of High-Speed Electromagnetic Repulsion Mechanism of Vacuum Circuit Breaker <i>Y. S. Hou, Z. Q. Shi, S. Li, Y. K. Zhang, J. Bai, S. L. Jia, L. J. Wang</i>	627-630
161-C1-P-26.pdf	Experimental Investigation on HVDC Vacuum Circuit Breaker Based on Artificial Current Zero <i>Y. K. Zhang, Z. Q. Shi, Q. S. Wang, Z. P. Gao, S. L. Jia, L. J. Wang</i>	631-634
162-C1-P-27.pdf	Research on the Experimental Method for HVDC Vacuum Circuit Breaker Based on Artificial Current Zero <i>Y. K. Zhang, Z. Q. Shi, Q. S. Wang, S. L. Jia, L. J. Wang</i>	635-638
163-C1-P-28.pdf	Simulation on the Residual Axial Magnetic Field in Vacuum DC Interruption Based on Artificial Current Zero <i>Y. K. Zhang, Z. Q. Shi, J. L. Li, Q. S. Wang, S. L. Jia, L. J. Wang</i>	639-642
164-C1-P-29.pdf	Interruption Capability of a Fast Vacuum Circuit breaker with a Short Arcing Time <i>B. J. Zhang, Y. X. Tan, L. Ren, J. H. Wang, Y. S. Geng, Z. Y. Liu, S. Yanabu</i>	643-646
165-C1-P-30.pdf	Research on 40.5kV Two-break Vacuum Circuit Breaker for Switching Capacitor Banks <i>Tong Wang, J. Yan, X. S. Zhai, Z. Y. Liu, Y. S. Geng, Y. X. Chen</i>	647-650
166-C1-P-31.pdf	Effect of Grounded Shield on Electric Field Distribution for Solid Insulation Vacuum Circuit Breaker <i>S. L. Guan, S. G. Han, H. Yin, X. F. Bai, Tong Wang, J. Yan</i>	651-654
167-C1-P-32.pdf	Study on Back to Back Capacitive Current Switching of 36kV Vacuum Circuit Breaker <i>B. C. Kim, S. T. Kim, K. Y. Ahn, Y. G. Kim</i>	655-658
168-C1-P-33.pdf	Optimum Number of Petals for a Spiral TMF Contact <i>W. P. Li, R. K. Smith, M. B. J. Leusenkamp</i>	659-662
169-C1-P-34.pdf	Railway DC Circuit Breaker based on the Superconducting Fault Current Limiter <i>S. Y. Liu, K. Yang, Yi Yang, Z. Y. Liu, Y. S. Geng, J. H. Wang</i>	663-666
170-C1-P-35.pdf	Fundamental Research of Uniform Vacuum Arc Control by Magnetic Field and Its Application to VCB <i>Y. Niwa, N. Asari, W. Sakaguchi, A. Daibo, Y. Sekimori</i>	667-670
171-C1-P-36.pdf	Improvement of External Dielectric Performance of Vacuum Interrupter <i>T. Lamara, C. Tricarico, B. Fischer</i>	671-674
172-C1-P-37.pdf	Study on the Operating Characteristics of Laser-triggered Vacuum Switch <i>Y. Zhao, M. F. Liao, C. Y. Zheng, C. Wei, G. W. Ge</i>	675-678
173-C1-P-38.pdf	Capacitive Current Switching Performance of Vacuum Interrupters with Different Magnetic Fields <i>Feng Zhao, B. Hu, H. Yang, Z. Y. Liu</i>	679-682
174-C1-P-39.pdf	Study of the Influence of Breaking Performance on the Operation Stability of Switchgear <i>S. F. Wu, S. X. Xiu, X. L. Duan, D. Y. Feng, X. J. Lu, Z. X. Liu</i>	683-686
175-C1-P-40.pdf	Research of a New Type of fault Current Energized Fast Repulsive Force Actuator	687-690

	<i>E. Y. Dong, Q. Li, Y. Tian, T. T. Qin, J. Y. Zou</i>	
176-C1-P-41.pdf	Comparison of Artificial Current Zero Impulses for a Vacuum Interrupter Based Direct Current Circuit Breaker <i>T. Heinz, P. Hock, V. Hinrichsen</i>	691-694
177-C2-O-01.pdf	Ion Nitriding of Titanium Alloys in Low-pressure Glow Discharge <i>V. V. Budilov, K. N. Ramazanov, I. V. Zolotov</i>	695-698
178-C2-P-01.pdf	Mechanism of Cratering on the Anode Surface at Vacuum Breakdown and at Irradiation of Metal Targets with Pulsed Power Electron Beams <i>G. E. Ozur, D. I. Proskurovsky, V. P. Rotshtein</i>	699-702
179-C2-P-02.pdf	Surface Treatment of Micro-Al ₂ O ₃ with Atmospheric Pressure and Low Temperature Plasma <i>G. Q. Yang, Yue Yang, S. Zhong, D. Y. Wang</i>	703-706
180-C2-P-03.pdf	Surface Modification of Rolls During Ion Nitriding Followed by Coating in a Plasma Arc Discharge <i>A. M. Pesin, D. O. Pustovoytov, R. K. Vafin, I. I. Yagafarov, E. L. Vardanyan</i>	707-709
181-C2-P-04.pdf	The Influences of Different Factors on the Descaling Effects in Removing Oxide Layer on Metal Surface by Vacuum Arc <i>W. H. Li, Z. Q. Shi, F. Shi, S. L. Jia, L. J. Wang</i>	710-713
182-C2-P-05.pdf	Technology of Local Ion Nitriding of Chrome-nickel Steel in Glow Discharge with Hollow Cathode Effect <i>Y. G. Khusainov, K. N. Ramazanov, V. V. Budilov</i>	714-717
183-C2-P-06.pdf	The Effects of Vacuum Arc Descaling on the Properties of the Cathode Surface <i>F. Shi, Z. Q. Shi, W. H. Li, S. L. Jia, L. J. Wang</i>	718-721
184-C2-P-07.pdf	The Influence of Ion Nitriding on Adhesion Behavior of TiN And TiAl ₃ /TiAlN Coating Deposited By Vacuum Arc Plasma <i>E. L. Vardanyan, I. I. Yagafarov, K. N. Ramazanov</i>	722-725
185-C2-P-08.pdf	Influence of Structure and TiAl ₃ /TiAlN Intermetallic Coatings on the Corrosion Behavior of Austenics Steels <i>E. L. Vardanyan, I. I. Yagafarov, K. N. Ramazanov, A. R. Khamzina, N. A. Amirhanova</i>	726-729
186-C2-P-09.pdf	Influence Ultrafine-grained Structure of Martensitic Steel on Diffusion Process at Low Temperature Ion Nitriding <i>K. N. Ramazanov, R. S. Esipov, A. V. Ganeev, M. A. Nikitina, R. K. Islamgaliev, E. L. Vardanyan</i>	730-732
187-C2-P-10.pdf	Ion Energy Distributions at a Cathode in a Non-Sputtering Magnetron Discharge <i>A. V. Kaziev, D. V. Kolodko, A. V. Tumarkin, M. M. Kharkov, T. V. Stepanova</i>	733-735
188-C2-P-11.pdf	The Correlation between Composition and Microhardness of Vacuum Arc Plasma TiN Coatings in Plant Chamber Volume <i>I. I. Yagafarov, R. K. Vafin, E. L. Vardanyan, A. M. Pesin, D. O. Pustovoytov</i>	736-738
189-C2-P-12.pdf	Effect of Layers Thickness on Phase Composition, Microhardness and Tribological Properties of Multilayered Intermetallic Ti-Al Coatings Deposited by Vacuum Arc Plasma	739-741

	<i>E. L. Vardanyan, I. I. Yagafarov, R. K. Vafin</i>	
190-C3-O-01.pdf	Suppressing the Asymmetrical Structures of the Wire Array Z-pinch <i>J. Wu, S. L. Jia, A. C. Qiu</i>	742-745
191-C3-P-01.pdf	Space Charge Plasma Optic Devices: New Applications in Vacuum Arc Technology <i>E. M. Oks, V. I. Gushenets, A. S. Bugaev, A. A. Goncharov, A. N. Dobrovolskiy, I. V. Litovko</i>	746-749
192-C3-P-02.pdf	Generation of Heavy Metal Ions with Charge States 17+ in Pulsed Vacuum Arc <i>V. P. Frolova, A. G. Nikolaev, E. M. Oks, G. Yu. Yushkov</i>	750-753
193-C3-P-03.pdf	Generation of Quasi-Stationary Broad Pulsed Electron Beam by the Forevacuum Plasma Source Based on the Arc Discharge <i>V. A. Burdovitsin, A. V. Kazakov, A. V. Medovnik, E. M. Oks</i>	754-757
194-C3-P-04.pdf	Field Emission Energy Spectra Fine Structure for Metallic Cathodes Coated by Dielectric or Semiconductor Films <i>I. S. Turmyshev, A. M. Murzakaev, O. R. Timoshenkova</i>	758-761
195-C3-P-05.pdf	Vacuum Arc Ion Source with Compound Cathode and Beam Separation by Bending Magnet <i>K. P. Savkin, E. M. Oks, V. I. Gushenets, V. P. Frolova, A. G. Nikolaev, G. Yu. Yushkov</i>	762-765
196-C3-P-06.pdf	Improvement the Stability of Operation of a High-Current, Plasma-Filled Electron Gun <i>P. P. Kiziridi, G. E. Ozur, E. V. Yakovlev</i>	766-769
197-C3-P-07.pdf	DC and High Current Pulsed Magnetron Discharge for Generation of Boron Plasmas <i>A. V. Vizir, E. M. Oks, M. V. Shandrikov, G. Yu. Yushkov</i>	770-773
198-C3-P-08.pdf	Boron-Rich Plasma of High Current Pulsed Vacuum Arc with Lanthanum Hexaboride Cathode <i>V. P. Frolova, A. G. Nikolaev, E. M. Oks, K. P. Savkin, M. V. Shandrikov, A. V. Vizir, G. Yu. Yushkov</i>	774-777
199-C4-P-01.pdf	Electrical Strength of the High-voltage Gaps of the Tandem Accelerator with Vacuum Insulation <i>Y. A. Kolesnikov, I. N. Sorokin, S. Y. Taskaev</i>	778-781
200-C4-P-02.pdf	Improvement of the CERN SPS Electrostatic Septa Ion Traps <i>B. Balhan, R. A. Barlow, J. Borburgh, G. Raffaele</i>	782-785
201-C5-O-01.pdf	Development of the Technique for Spacecraft Equipment Examination on Secondary Arcing Hazard <i>A. V. Batrakov, S. G. Kochura, A. V. Mikov, S. A. Popov, A. V. Schneider, S. B. Suntsov</i>	786-789
202-C5-P-01.pdf	Simulation of Primary Discharge Ignition in Spacecraft Electronic Equipment <i>L. A. Zjulkova, A. V. Kozyrev, V. M. Karaban, D. S. Kosov, S. A. Popov, E. V. Nefedtsev</i>	790-794