



Centre of Excellence for the Application
of Superconducting and Plasma Technologies
in Power Engineering
Institute of Electrical Engineering & Electrotechnologies
Lublin University of Technology



PROGRAM

6th International Conference

ELMECO-6

ELECTROMAGNETIC DEVICES AND PROCESSES
IN ENVIRONMENT PROTECTION

joint with

9th Seminar APPLICATIONS OF SUPERCONDUCTORS

AoS-9

June 24 – 27, 2008

Nałęczów, Poland

Institute of Electrical Engineering and Electrotechnologies
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Organized by:

Centre of Excellence for the Application of Superconducting and Plasma Technologies in Power
Engineering
Institute of Electrical Engineering and Electrotechnologies
Lublin University of Technology

Conference venue:
Conference Centre ENERGETYK
10 Paderewskiego St., 24 - 140 Nałęczów
tel. (48-81) 50 14 604

Scientific Committee

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Krystyna Cedzyńska	(Technical University of Łódź, Poland)
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Sotoshi Yamada	(Kanazawa University, Japan)
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Program of ELMECO-6 joint with AoS-9

Tuesday, 24 June'08		Wednesday, 25 June'08		Thursday, 26 June'08		Friday, 27 June'08		
from 17.30 - Registration: Conference Centre ENERGETYK in Nałęczów		8 ⁰⁰	Breakfast	8 ⁰⁰	Breakfast	8 ⁰⁰	Breakfast	
		9 ⁰⁰ – 11 ⁰⁰	Oral session OS-1	9 ⁰⁰ – 18 ⁰⁰	Coach trip to Zamość	9 ⁰⁰ – 10 ³⁰	Poster session PS-2	
		11 ⁰⁰ – 11 ³⁰	Coffee break			10 ³⁰ – 12 ³⁰	Oral session OS-4	
		11 ³⁰ – 13 ³⁰	Oral session OS-2	12 ³⁰			Lunch	
		13 ³⁰ – 15 ⁰⁰	Lunch					
		15 ⁰⁰ – 16 ³⁰	Poster session PS-1					
		16 ³⁰ – 18 ³⁰	Oral session OS-3	18 ⁰⁰	Departure to Nałęczów			
		19 ⁰⁰ – 20 ⁰⁰	Dinner	20 ⁰⁰	Barbecue			

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Tuesday, 24 June'08

17.30 – Registration: Conference Centre ENERGETYK in Nałęczów

19.00 – 20.00 Dinner

Wednesday, 25 June'08

8.00 Breakfast

9.00 – 11.00 ORAL SESSION OS-1

Chairman: *prof. J. Mizeraczyk, prof. C. Yamabe*

1. Zbigniew Kołaciński, Łukasz Szymański, Witold Sroczyński,
Zbigniew Muszczyński
Plasma treatment of spent chemicals
2. Kenji Ebihara, Shinji Sugimoto, Tomoaki Ikegami, Fumiaki Mitsugi,
Henryka D. Stryczewska
Application of gaseous ozone to agricultural soil sterilization
3. Krystyna Cedzyńska
Comparison of toxic ashes solidification method
4. Bogusław Grzesik, Mariusz Stępień, Sebastian Krosny
FEM and laboratory tests of HTS transformer with improved utilization of superconducting wire
5. Mariusz Stępień, Bogusław Grzesik
Characteristics of new magnetic materials in LN2 for HTS transformers
6. Ernest Gnapowski
Investigations of the DBD reactor with metal mesh electrodes and glass wool dielectric

11.00 – 11.30 Coffee break

11.30 – 13.30 ORAL SESSION OS-2

Chairman: *prof. Z. Kołaciński, prof. K. Ebihara*

1. Mariusz Jasiński, Mirosław Dors, Jerzy Mizeraczyk
Production of hydrogen via methane conversion using microwave plasma source with CO₂ swirl

2. Valeriy Chernyak, Sergiej Olszewski, Yrina Prysiashnevych, Witalij Yukhymenko, Vadym Naumov, Dmitry Levko, Anatolij Shchedrin, Andriy Rybatsev, Valentina Demchina, Vladimir Kudryavtsev
Transversal gas discharges in plasma liquid systems and its applications for environmental protection

3. Yrina Prysiashnevych, Valeriy Chernyak, Sergiej Olszewski, Witalij Yukhymenko
Plasma properties of transverse arc at atmospheric pressure

4. G.S. Malhi, S.C. Mukhopadhyay, Andrzej Nafalski
Modelling of a magnetic current limiter for reliable operation

5. Sebastian Gnapowski, Chobei Yamabe, Satoshi Ihara
Ozone generation characteristic of ozonizer with the rotating type electrode

6. Lewandowska Monika, Maurizio Bagnasco
Pressure drop measurements in cable in conduit conductors (CiCCs) for an extended range of Reynolds number

13.30 – 15.00 Lunch

15.00 – 16.30 POSTER SESSION PS-1

Chairman: *prof. J. Sosnowski, prof. A. Nafalski*

1. Leszek Jaroszyński
An introduction to Quantum Computing

2. Michał Łanczont, Tadeusz Janowski
Analysis of the operation of three-phase fault current limiter with two superconducting funnels

3. Dariusz Czerwiński, Ryszard Goleman, Tomasz Giżewski
Equivalent electromagnetic and circuit model for HTS current leads
4. Andrzej Wac-Włodarczyk, Tomasz Giżewski, Dariusz Czerwiński,
Ryszard Goleman, Joanna Koziół
Calculation the anhysteretic curve of the Jiles-Atherton model
5. Joanna Pawłat, Xuefeng Li, Tadashi Sugiyama, Takahiro Matsuo, Yura Zimin,
Toshitsugu Ueda
Gas sensor based on microstructured optic fiber
6. Joanna Pawłat, Satoshi Ihara, Chobei Yamabe
Treatment of dyes from textile industry in the foaming system
7. Michał Młotek, Jan Sentek, Krzysztof Krawczyk, Krzysztof Schmidt-Szałowski
Reactor for plasma-catalytic processes in heterogeneous system
8. Shin-ichi Aoyama
Preparation of carbon nanotubes gas sensor with very simple process method
9. Josef Senk
Plasma parameters analysis based on integral measured data
10. Ryszard Pałka
Maszyny elektryczne z ekranami nadprzewodnikowymi
11. Tsuyoshi Ueda, Fumiaki Mitsugi, Tomoaki Ikegami, Takashi Ikegami,
Kenji Ebihara
Fundamental study on biosensing device fabrication based on carbon nanotubes and DNA
12. Łukasz Szymański, Zbigniew Kołaciński, Grzegorz Raniszewski
Immersed Arc-Plasma Treatment of Mineral Wastes
13. Paweł Surdacki
Application of superconductors to thermonuclear reactor magnets
14. Henryka Danuta Stryczewska, Krzysztof Nalewaj
Wykorzystanie energii słonecznej do zasilania układów ozonowania wody
15. Justyna Jaroszyńska-Wolińska
Theoretical investigation of competing reaction path between ozone and nitrogen oxides

16.30 – 18.30 ORAL SESSION OS-3

Chairman: prof. B. Grzesik, prof. K. Cedzyńska

1. Bartek Głowacki , Milan Majoros, Archie M. Campbell
Influence of magnetic materials on transport properties of applied superconductors
2. Zbigniew Kołaciński
Nanoproducts born in plasma to overtake oil and energy crisis
3. Jacek Sosnowski
Influence of material inhomogeneities in HTc ceramic superconductors on critical current and related phenomena
4. Janusz Kozak
Automatic continuity test of superconducting quadrupoles
5. Chobei Yamabe , Nakazaki Shou, Satoshi Ihara
Water treatment using a pulsed discharge
6. Toshiyuki Nakamiya, Yoshito Sonoda, Tomoaki Ikegami, Fumiaki Mitsugi, Kenji Ebihara, Ryoichi Tsuda
Measurement of electric discharge sound by Fraunhofer diffraction and analysis

20.00 Conference dinner

Thursday, 26 June'08

8.00 Breakfast

9.00 – 18.00 Coach trip to Zamość

18.00 Departure to Nałęczów

20.00 Barbecue

Friday, 27 June'08

8.00 Breakfast

9.00 – 10.30 POSTER SESSION PS-2

Chairman: *prof. M. Cizek, prof. B. Głowacki*

1. Grzegorz Wojtasiewicz, Beata Kondratowicz-Kucewicz
Nadprzewodnikowe uzwojenie II generacji dla ogranicznika prądu 6,9kV/1,15kA
2. Beata Kondratowicz-Kucewicz, Grzegorz Wojtasiewicz
Nadprzewodnikowe magnetyczne zasobniki energii z cewkowo-toroidalnymi uzwojeniami HTS
3. Michał Majka, Sławomir Kozak
Wykorzystanie taśm HTS I i II generacji do budowy nadprzewodnikowych ograniczników prądu
4. Joanna Koziół, Tadeusz Janowski
The influence of magnetic coupling factor k on value impedance limiting fault current
5. Grzegorz Komarzyniec, Jarosław Diatczyk, Henryka D. Stryczewska
Badania eksperymentalne zasilacza reaktora plazmowego z rdzeniem pięciokolumnowym
6. Paweł Mazurek
Measuring position to analyse the ESD immunity of electric devices
7. Paweł Mazurek
Electromagnetic immunity test system
8. Jan Ziaja, Joanna Koprowska, Paweł Żyłka
Influence of nonwoven structures on resistivity of plasma titanium films
9. Łukasz Kroplewski, Paweł Żochowski, Mariusz Jasiński, Mirosław Dors, Zenon Zakrzewski, Jerzy Mizeraczyk
Coaxial microplasma source

10. Daniel Gajda, Andrzej Morawski, Andrzej Zalewski
The comparison of critical current density wires NbTi/Cu with wires MgB₂/Fe
11. Daniel Gajda, Andrzej Morawski, Andrzej Zalewski
The influence of cold-drawing NbTi wire on critical current density
12. Mariusz Woźniak, Simon Hopkins, Bartek A. Głowacki, Tadeusz Janowski
Comparison of DC and Pulsed Critical Current Characterisation of NbTi Superconducting Wires
13. Agnieszka Łękawa, Bartek A. Głowacki, Mariusz Woźniak, Simon Hopkins, Grzegorz Kozłowski, Henryka D. Stryczewska, Tadeusz Janowski
Magnetic measurements of percolation in coated conductors as an analogue of deteriorating living neural networks
14. Jacek Rymaszewski, Marcin Lebioda, Ewa Korzeniewska, Krzysztof Politowski
Technologia wytwarzania MgB₂ i zagrożenia dla zdrowia

10.30 – 12.30 ORAL SESSION OS-4

Chairman: prof. H.D.Stryczewska, prof. T. Nakamiya

1. Jacek Sosnowski
The centenary of cryoelectrotechnics
2. Zbigniew Kołaciński, Grzegorz Raniszewski, Łukasz Szymański
Zastosowanie miedzi jako pierwiastka charakterystycznego przy pomiarach temperatury metodą Ornsteina
3. Sławomir Jodzis, Angelika Kowalska
Ozone synthesis under pulse surface discharge
4. Yukihiro Yamagata, Yosuke Fujii, Yozo Kawagashira, Katsunori Muraoka
Decomposition of electrostatic-precipitated particulate materials from diesel exhaust gas with nitric oxides using dielectric barrier discharge
5. Agnieszka Łękawa, Danuta Stryczewska, Sotoshi Yamada, Chinthaka Gooneratne
Review of biomedical applications of SV-GMR sensors

12.30 Lunch



Nałęczów



Conference venue:



**Centrum Szkoleniowo Wypoczynkowe
"ENERGETYK" w Nałęczowie**



**Conference Centre ENERGETYK
10 Paderewskiego St., 24 - 140 Nałęczów
tel. (48-81) 50 14 604**



Zamość

