

**TUESDAY SEPTEMBER 16<sup>th</sup>**

14.00 - 20.00 Registration

18.00 - 20.00 Supper

**WEDNESDAY SEPTEMBER 17<sup>th</sup>**

8.30 - 9.30 Breakfast

9.30 - 9.45 Opening ceremony

**9.45 - 11.00 Plenary session A****9.45 - 10.10 Zdzisław Filus***Institute of Electronics at the Silesian University of Technology***10.10 - 10.35 Peter J. Gielisse, Małgorzata Jakubowska,  
Halina Niculescu***The Role of Nanomaterials in Future Microelectronics***10.35 - 11.00 Marko Hrovat, Darko Belavic, Janez Holc, Janez  
Bernard, Andreja Bencan***The Investigation of Thick Film Resistors Fired at Different  
Temperatures*

11.00 - 11.50 Coffee break

**11.50 - 13.30 Plenary session B****11.50 - 12.15 Karlheinz Bock, Rolf Aschenbrenner, Jan Felba***Polymer Electronics - Fancy or the Future of Electronics***12.15 - 12.40 Ryszard Kisiel***Trends in Soldering Process for Advanced Microelectronics  
Assembly***12.40 - 13.05 Andrzej Dziedzic, Adam Janik, Andrzej Kolek,  
Waleed Ehrhardt, Heiko Thust***Advanced Electrical and Stability Characterisation of Untrimmed  
and Pulse Voltage or Laser - Trimmed Thick Film Resistors***13.05 - 13.30 Khalil Arshak, David Egan***The Development of Methods and Materials for the Production of  
Planar Transformers Using Thick-Film Technology*

13.15 - 15.00 Lunch

**15.00 - 17.00 Poster session I****17.00 - 18.00 IMAPS Members Meeting**

19.30 - Grill Party

**THURSDAY SEPTEMBER 18<sup>th</sup>**

8.30 - 9.30 Breakfast

**9.45 - 11.00 Plenary session C****9.45 - 10.10 Bogusława Adamowicz, Hideki Hasegawa***Characterization of the Electronic Status of III-V-based Surface and  
Interfaces for Nanoelectronics Applications***10.10 - 10.35 Gert Winkler, Gernot Bischoff, Aneta Sutor***New Materials and Technologies for Printed Circuit Boards***10.35 - 11.00 Grażyna Beensh-Marchwicka, Eugeniusz Prociów,  
Stanisław Osadnik***Materials for Thin-Film Thermal Converters***11.00 - 11.25 Khalil Arshak, Olga Korostynska, John Henry***Response of Indium Oxide and Silicon Oxide Thick Film PN-  
Junctions to Gamma Radiation Exposure*

11.25 - 12.00 Coffee break

**12.00 - 14.00 Poster session II**

14.00 - 15.00 Lunch

15.30 - 19.00 A tour

19.30 - Gala dinner

**FRIDAY SEPTEMBER 19<sup>th</sup>**

8.30 - 9.30 Breakfast

**10.00 - 11.00 Workshop "Photovoltaic Cells" (in Polish)****10.00 - 10.30 Marek Lipiński, Piotr Panek***Optimisation of multicrystalline silicon solar cell***10.30 - 11.00 Piotr Panek, Elżbieta Bielańska, Jan Dutkiewicz***The Effect of Porous Silicon Layer on Solar Cells*

11.00 - 11.30 Coffee break

**11.30 - 12.30 Workshop "Photovoltaic Cells" (in Polish)****11.30 - 12.00 Kazimierz Drabczyk***Solar Cell Emiter Layer Created During Diffusion in IR Belt  
Furnace, Carried Out with Pastes as Diffusion Source***12.00 - 12.30 Wojciech Grzesiak, Michał Cież, Jerzy Poczałek,  
Wiesław Zaraska, Krzysztof Wietrzny, Jan Koprowski***Photovoltaic Systems as the clean energy source for the present and  
for to-morrow*

12.45 - 14.00 Lunch

**WEDNESDAY SEPTEMBER 17<sup>th</sup>**

**Poster session I**

1. Defect and material analysis of IC's interconnections using laser ultrasonics

**G. Andriamonje, Y. Ousten**

2. Quantitative investigation of adhesion in thyristor structure using thermal wave method and evolutionary algorithm

**Robert Arsoba , Zbigniew Suszyński**

3. Modelling of 3d Multisubstrate Structures

**Jindřich Bulva, Ivan Szendiuch**

4. Heat transfer analysis in thick-film multilayer systems using electro – thermal analogy

**Grzegorz Bląd, Zenon Hotra, Dariusz Klepacki, Jerzy Potencki, Mariusz Węglarski**

5. Analysis of photovoltaic cell emitter layer using diffusion process simulation

**Wojciech Filipowski , Kazimierz Drabczyk, Krzysztof Waczyński**

6. Complete solar systems of output equipped with 230v 50hz dc/ac inverters

**Wojciech Grzesiak, Jerzy Początek, Krzysztof Witek**

**Krzysztof Wietrzny, Jan Koprowski**

7. Solar home station systems

**W.Grzesiak, J.Początek, W.Zaraska, K.Wietrzny**

8. Contribution to uv laser ablation process of sound PCB microvias

**Halina Hackiewicz, Grażyna Koziol, Janusz Borecki**

9. Measurements of thermal transients in semiconductor devices in the internal or external power excitation mode

**Włodzimierz Janke, Jarosław Kraśniewski, Mariusz Kraśniewski, Maciej Oleksy, Jerzy Mizeraczyk, Marek Kocik**

10. Conditions of passive tag supply in RFID systems

**Piotr Jankowski-Mihułowicz, Włodzimierz Kalita**

11. Programme SCAN BOND 1.0 - new instrument for visual inspection of wire bonds

**Ryszard Jezior , Włodzimierz Lukasik , Sebastian Dlugon**

12. Optical Method of TGSL10 Single Crystals Pre-selection. Method Uncertainty

**Włodzimierz Kalita, Mariusz Trybus, Władysław Proszak**

13. Preliminary Results of Conductive Adhesive Fillet Resistance Stability in Double Sided PCBs

**Ryszard Kisiel, Artur Markowski**

14. Virtual laboratory PACK in Java/Flash for research the semiconductor materials

**A. Patryn, W. Suslow, R. Kierecki**

15. Correlation Between Domain Structure And Electric Permeability of TGSL10 Single Crystals

**Władysław Proszak**

16. Optoelectronic gate realizing the function wired NOR

**Z. Porada, E. Schabowska-Osiowska**

17. A new approach to evaluation of the quality of bushings

**Zbigniew Suszyński, Piotr Majchrzak**

18. Photoacoustic investigation of the quality of metal-glaze bonding for harmonic and pulse excitation

**Zbigniew Suszyński, Piotr Majchrzak**

19. The idea of thermal wave contrast images in analysis of thermal properties of solids

**Zbigniew Suszyński , Piotr Majchrzak**

20. Usage of pulse excitation in photo-thermal investigation of high power thyristor structure

**Zbigniew Suszyński , Radosław Duer, Robert Arsoba**

21. Simplified flip chip solder bonding on FR-4 laminate

**Zbigniew Szczępański**

22. Photosensitivity and transport phenomena of solar cells

**P. Wojcik, T. Stapiński, T. Pisarkiewicz**

23. Improved top-hat and u-shaped resistors for high precision laser trimming

**Marek Wroński**

24. Influence of soldering oven temperature profile on the quality of Pb-free solder joints

**Wiesław Zaraska, Krzysztof Witek, Michał Cież, Ryszard Knapik**

25. Computer program for simulation of 3-d shapes fabricated in silicon anisotropic etching process

**I. Zubel, M. Kramkowska, P. Wójcik**

26. Possibilities of spatial shapes modification by silicon anisotropic etching

**I. Zubel, M. Kramkowska**

**THURSDAY SEPTEMBER 18<sup>th</sup> Poster session II**

1. Characterization of Si-Ta thin film materials with high Ta content  
**Grażyna Beensh-Marchwicka, Eugeniusz Prociów**
2. Evaluation of silver alloys for thermosonic assembly of microelectronics circuits  
**Andrzej Bochenek, Barbara Bober, Bronisława Olszewska-Mateja, Zbigniew Żaluk**
3. Application of lead-free solder paste for soldering of PCB's  
**Krystyna Bukat, Janusz Sitek, Andrzej Jaworski, Dubravka Ročák, Darko Belavić, Janeta Faifar-Plut**
4. Comparison of electrooptical parameters in electroluminescent structures composed with various transparent electrodes  
**Michał Cież, Marek A. Łukasik, Krzysztof Witek, Wiesław Zaraska**
5. Correlation between geometry and electrical properties of LTCC and thick-film microresistors  
**Andrzej Dziedzic, Edward Miś, Lars Rebenklau, Klaus-Jurgen Wolter**
6. Thick-film and LTCC resistors under high hydrostatic pressure  
**Andrzej Dziedzic, Ryszard Poprawski, Andrzej Kolarz**
7. On the Design and Fabrication of Photoimageable Thick-Film Multilayer Filters and couplers  
**Barbara Dziurdzia, Zbigniew Magoński, Stanisław Nowak, Michał Cież, Wojciech Gregorczyk, Waclaw Niemyjski**
8. Thick film pastes based on perovskite materials with addition of platinum  
**Joanna Gandurska, Irena Śnieżyńska, Anna Marek**
9. ZnO LTCC varistors  
**Katarzyna Majewska, Leszek J. Golonka, Johanna Honkamo, Heli Jantunen, Witold Mielcarek**
10. Electrical and stability properties of molybdenum oxide based thick film resistors  
**Małgorzata Jakubowska, Jerzy Kalenik, Anna Miecznik, Elżbieta Zwierkowska**
11. Application of ceria electrolyte in electrocatalytic gas sensor  
**Grzegorz Jasiński, Piotr Jasiński, Bogdan Chachulski, Antoni Nowakowski**

12. Ni-P-B resistive layer obtained by chemical method  
**Piotr Kowalik, Zbigniew Pruszowski**
13. Dielectric Properties of Lead-free Ferroelectric Perovskites Based on Calcium  
**J. Kulawik, D. Szwagierczak, J. Gandurska, A. Marek, I. Śnieżyńska**
14. Carbon-polymer posistors heating layer on enamelled steel substrates  
**Lukasik Andrzej, Nowak Stanisław, Siwulski Stanisław**
15. Influence of filler quantity on thermal characteristics of carbon-acrylic resistive layers  
**Andrzej Łukasik, Zbigniew Pruszowski**
16. Polymer-carbon-aluminium resistive activation layers in the process of chemical ni-p metallisation  
**Andrzej Łukasik, Michał Cież, Zbigniew Pruszowski**
17. Properties of thick-film resistors on dielectric and metal substrates for piezoresistive sensors  
**Thomas Mader, Claudio Grimaldi, Peter Ryser**
18. Gas microsensor based on semiconductors deposited onto silicon membrane  
**T. Pisarkiewicz, W. Maziarz, J. Koszur, J. Jazwinski, J.M. Lysko**
19. Cadmium Sulphide Thin Films For Photovoltaic Applications  
**E. Schabowska-Osiowska, T. Pisarkiewicz, T. Kenig**
20. Investigation of profile of thermal properties in copper-ceramics structures  
**Zbigniew Suszyński, Piotr Majchrzak**
21. Amorphous silicon-carbon as a new material for optoelectronic applications  
**B. Swatowska and T. Stapiński**
22. Aging behavior of capacitors with relaxor dielectrics  
**D. Szwagierczak, J. Kulawik, S. Nowak, J. Gandurska, A. Marek, I. Śnieżyńska, B. Gröger**
23. Investigation of Pb-free Sn-Ag-Cu alloy shear strength under influence of environmental conditions  
**Krzysztof Witek, Michał Cież, Wiesław Zaraska, Wojciech Grzesiak**