

C H R O N I C L E

**36th Winter School on Wave and Quantum Acoustics
Wisła, Poland, February 26 – March 02, 2007**

I have a great pleasure to inform the “*Archives of Acoustics*” Readers that the 36th Winter School on Wave and Quantum Acoustics, organized by Upper Silesian Division of the Polish Acoustical Society and Institute of Physics at Silesian University of Technology, is planned at February/March 2007 in beautiful scenery of Silesian Beskidy Mountains.

As always, the School has been a place where achievements of various sections of acoustics (especially molecular acoustics, quantum acoustics, acousto-optics, magnetoacoustics, acoustoelectronics, photoacoustics, acoustics of solids etc.) are being exchanged. Moreover, some similar and related topics, for example optoelectronics and thermal wave methods, will be presented too.

As at previous two years the School will be divided on three different, but complementary, parts – Winter Workshops (WW). Chronologically it will be: 3rd WW on Acoustoelectronics and Optoelectronics (chairman prof. Tadeusz Pustelny), 3rd WW on Molecular and Quantum Acoustics (chairwoman dr Marzena Dzida), and 12th WW on Photoacoustics and Thermal Waves Methods (chairman prof. Jerzy Bodzenta).

After acceptance by reviewers the School lectures will be published in one of two journals – in *The European Physical Journal Special Topics* (formerly *Journal de Physique IV – Proceedings*), which is published by EDP Sciences or in *Journal of Molecular and Quantum Acoustics* (annual journal published by Upper Silesian Division of the Polish Acoustical Society). Moreover, all Participants will obtain a last issue of the *Journal of Molecular and Quantum Acoustics*.

Once again we have taken pains to organize this conference taking into account the fact that it is an important event for acousticians, opticians and other Polish and foreign scientists. We hope that this reach conference program will gain acceptance and respect among its potential participants. We count on your numerous response and active participation.

In behalf of Organizers
Roman Bukowski
coordinator of the School

3rd Winter Workshop on Acoustoelectronics and Optoelectronics

1. Vladimir Balakshy, Bogumił Linde, Anna Vostrikova: *Acousto-optic interaction in an inhomogeneous acoustic field*
2. Dariusz Bochenek: *Relations between physical properties of the biferroic $Pb(Fe_{1-x}Nb_x)O_3$ ceramics and their composition change*
3. Dariusz Bochenek, Julian Dudek: *Influence of the processing conditions on the properties of the biferroic $Pb(Fe_{1/2}Nb_{1/2})O_3$ ceramics*
4. Tomasz Boczar, Sebastian Borucki, Andrzej Cichoń, Marcin Lorenc: *The results of the wavelet analysis of the acoustic emission signals generated by partial discharges in insulation oil of various temperature and flow speed*
5. Sebastian Borucki, Tomasz Boczar, Andrzej Cichoń, Marcin Lorenc: *The evaluation of neural networks application for recognizing single-source PD forms generated in paper-oil insulation systems based on the AE signal analysis*
6. Marek Czerwiec, Jan Ilczuk, Radosław Zachariasz: *The temperature dependences of electromechanical properties of PLZT ceramics*
7. Justyna Czuber, Dionizy Czekaj: *Functional properties of ferroelectric thin films*
8. Zbigniew Damijan: *The effects of low-frequency vibrations on hepatic profile of blood*
9. Roman Filipek, Jerzy Wiciak: *Active and passive structural acoustic control of the smart beam*
10. Maciej Gawlikowski, Tadeusz Pustelny, Roman Kustos, Maciej Darlak: *Non invasive blood volume measurement in pneumatic ventricular assist device POLVAD*
11. Ireneusz Grulkowski, Piotr Kwiek: *Successive diffraction model based on Fourier optics as a tool for the studies of light interaction with arbitrary ultrasonic field*
12. Tadeusz Gudra, Sylwia Muc: *Some problems of ultrasonic and laser cutting of biological structures*
13. Kazimierz Gut, Krzysztof Nowak: *Measurements of attenuation of planar optical waveguides*
14. Wiesław Jakubik, Marian Urbańczyk, Erwin Maciak: *Application of a multilayer structure in the SAW gas sensor*
15. Małgorzata Jędrzejewska-Szczerska, Robert Bogdanowicz, Marcin Gnyba, Ryszard Hypszer, Bogdan B. Kosmowski: *Fiber-optic temperature sensor using low-coherence interferometry*
16. Jerzy Kapelewski, Andrzej Dukata: *On optical theorem at a modified solid surface*
17. Jerzy Kapelewski, Bogdan Lila: *On SAW behaviour in some inhomogeneous solid surface layers*
18. Damian Kasprzak, Marek Błahut, Erwin Maciak: *Applications of multimode interference effects in gradient waveguides produced by ion-exchange in glass*
19. Adam Kawalec: *An application of the spectral theory to harmonic response analysis of SAW interdigital transducer*
20. Adam Kawalec, Krzysztof Jasek, Mateusz Pasternak: *Nafion SAW sensor for humidity measurements*
21. Joanna Korzekwa, Paweł Wawrzęta, Ryszard Skulski: *Electromechanical properties of PLZT $\times 90/10$*
22. Dmitry Kostyuk, Vladimir Balakshy: *Experimental investigation of image processing by means of acousto-optic spatial filtration*
23. Lucjan Kozielski, Dionizy Czekaj: *AC impedance spectroscopy studies of Ba^{2+} doped piezoelectric ceramics*
24. Lucjan Kozielski, Agata Lisińska-Czekaj, Dionizy Czekaj: *Preparation and multi-properties of Aurivillius phases in the $Bi_4Ti_3O_{12} - BiFeO_3$ system*
25. Dorota Machura, Jolanta Rymarczyk, Jan Ilczuk: *Ceramic bismuth titanate for high-temperature electro-acoustic transducers*
26. Dorota Machura, Jolanta Rymarczyk, Jan Ilczuk, Zygmunt Surowiak: *Mixed layer-structured ferroelectrics on the basis of $Bi_4Ti_3O_{12}$*
27. Sergey Mantsevich, Vladimir Balakshy: *Collinear diffraction of divergent optical beams*
28. Vladimir Molchanov, Oleg Makarov: *Acoustooptical filters for WDM applications*
29. Ewa Nogas-Ćwikiel, Krzysztof Ćwikiel, Dionizy Czekaj: *Study of thermally stimulated depolarization current in $Sr_{0.7}Ba_{0.3}Nb_2O_6$ ceramics prepared by sol-gel method*

30. Tomasz Orkisz, Dionizy Czekaj: *Synthesis and characterization of graded BST-based ferroelectric thin films*
31. Katarzyna Osińska, Dionizy Czekaj: *Preparation and dielectric properties of barium strontium titanate ceramics obtained by sol-gel method*
32. Norbert Palka, Wiesław Ciurapinski, Jan Wojcik, Mieczysław Szustakowski: *Core-ring classical and Photonic Crystal Fibers for sensing*
33. Norbert Palka, Mieczysław Szustakowski, Janusz Wróbel: *Elongation sensitivity of Photonic Crystal Fibers*
34. Marek Piszczek, Krzysztof Rutyna, Mieczysław Szustakowski: *Imaging of space with using optoelectronic observation system with active illumination*
35. Małgorzata Płońska, Joanna Korzekwa, Zygmunt Surowiak: *Some physical properties of the transparent PLZT ceramics, as a base for the biferroic transducers*
36. Jerzy Pluciński: *High resolution optical refractometer for dispersion measurement in UV-VIS range*
37. Nataliya Polikarpova, Nico Declercq: *Inclined Incidence and Back Reflection of Bulk Acoustic Waves in Crystals*
38. Jolanta Rymarczyk, Dorota Machura, Jan Ilczuk: *Processing and some properties of biferroic $\text{Bi}_5\text{Ti}_3\text{FeO}_{15}$ ceramics*
39. Jolanta Rymarczyk, Dorota Machura, Jan Ilczuk, Zygmunt Surowiak: *Biferroic electro-acoustic ceramics with BiFeO_3 composition*
40. Ryszard Skulski, Paweł Wawrzęta: *The model of the hysteresis for materials in which depending on composition the transition from relaxor to ferroelectric properties take place*
41. Marcin Strąkowski, Jerzy Pluciński, Andrzej Łoziński, Bogdan B. Kosmowski: *Determination of local polarization properties of LSFO ceramics by PS-OCT*
42. Marek Szmechta, Dariusz Zmarzły, Tomasz Boczar, Marcin Lorenc: *Optoacoustic phenomena in insulating oils*
43. Mieczysław Szustakowski, Norbert Palka, Robert Panowicz: *Rozszerzenie zakresu zastosowań optoelektroniki o pasmo terahercowe* (in Polish)
44. Alexander Tchernyatin, Elena Nazarova: *Acousto-optic diffraction in biaxial crystals possessing considerable optic dispersion*
45. Vitaly Voloshinov, Bogumił Linde, Konstantin Yushkov: *Acousto-optic processing of images in visible and ultraviolet light*
46. Paweł Wawrzęta, Dariusz Bochenek: *PBZT ceramics obtained by sol-gel method as material for electromechanical transducers*
47. Jerzy Wiciak: *Acoustics radiation by set of L-jointed plates with piezoelectric actuators*
48. Paweł Wierzba, Marcin Gnyba: *Liquid Crystalline Optical Components for Applications in Optical Sensing*
49. Beata Wodecka-Duś, Dionizy Czekaj: *Electric properties of La^{3+} doped barium titanate ceramics*
50. Janusz Wójcik, Tadeusz Powalowski, Zbigniew Trawiński: *Numerical simulation and experimental results of ultrasonic waves scattering on a model of the artery*
51. Radosław Zachariasz, Dariusz Bochenek: *Low frequency elastic and anelastic properties of $\text{Pb}(\text{Fe}_{0.5}\text{Nb}_{0.5})\text{O}_3$ ferroelectric ceramics*
52. Marek Życzkowski, Wiesław Ciurapiński: *Fiber optic sensor in Sagnac-Sagnac configuration in one optical fiber*

3rd Winter Workshop on Molecular and Quantum Acoustics

1. Krzysztof Bebek, Aleksandra Strugała: *Ultrasonic absorption in binary liquid mixtures of 2-methyl-1-propanol with hexane at 293.15 K*
2. Marzena Dzida: *Thermodynamic properties of isomeric pentanols under elevated pressures determined by the acoustic method*
3. Jacek Gliński, Andrzej Burakowski: *Is the Hydration Number of a Nonelectrolyte Additive With Length and Constituents of the Solute Molecule?*
4. Halina Krzyżanowska, Jerzy Żuk: *Determining elastic constants for crystals of unknown orientation using Every's closed-form expressions for acoustic wave velocity*

5. Bogumił B. J. Linde: *Vibrational Relaxation, experimental methods and theory*
6. Tadeusz Pustelny, Barbara Pustelny: *Investigations of the near-surface region in InAs by means of surface acoustic wave techniques*
7. Bożena Świerczek, Wojciech Marczak, Marzena Dzida, Tomasz Cembala: *Features of different honeycombs identified by acoustic method*
8. Krzysztof Wójtowicz: *The influence of 4-hydroxycoumarin and 7-hydroxycoumarin on the phase transition of DPPC bilayers*
9. Ewa Zielewicz, Piotr Sorys: *Comparison of Ultrasonic Disintegration in Laboratory and Technical Scale Disintegrators*
10. Edward Zorebski: *Isothermal compressibility and internal pressure of 1-butanol + 1,3-butanediol at 298.15 K using an acoustic method*

12th Photoacoustics and Thermal Waves Methods

1. Mariusz Barczak, Andrzej Dąbrowski, Janusz Ryczkowski, Sylwia Pasieczna-Patkowska: *FT-IR/PAS studies of bridged polysilsesquioxanes*
2. Tomasz Borowski, Tomasz Starecki: *Influence of the light intensity on the operation of the self-oscillation photoacoustic setup*
3. Alina Dudkowiak, Ewa Teślak, Jan Habdas: *Cobalt effect on porphyrin photophysical properties studied by optical and photothermal spectroscopy*
4. Alina Dudkowiak, Ewa Teślak, Danuta Wróbel: *Triplet state and singlet oxygen generation yields of dyes estimated by time-resolved photoacoustic spectroscopy*
5. Wojciech Gac, Sylwia Pasieczna-Patkowska, Janusz Ryczkowski: *An application of the FT-IR/PAS spectroscopy in the studies of the modified MCM-41 materials*
6. Magdalena Hofman, Sylwia Pasieczna-Patkowska, Janusz Ryczkowski, Leszek Wachowski: *Identification of functional groups on the surface of modified organic materials by FT-IR/PAS method*
7. Zbigniew Hubicki, Emil Zięba, Grzegorz Wójcik, Janusz Ryczkowski: *Physicochemical characteristic of selected aluminosilicates*
8. Władysław Janusz, Ewa Skwarek, Anna Ślósarczyk, Zofia Paszkiewicz, Alicja Rapacz-Kmita, Sylwia Pasieczna-Patkowska: *The study of the acid-base properties the surface groups at the hydroxypapatite/solution interface*
9. Agnieszka Kierys, Janusz Ryczkowski, Anna Borówka, Jacek Goworek: *Organic deposits on MCM-41 surface after thermal treatment as synthesized sample processing*
10. Dorota Kołodyńska, Janusz Ryczkowski, Zbigniew Hubicki: *FT-IR/PAS studies of chelates adsorption on anion exchangers*
11. Marcin Kuśmierz, Sylwia Pasieczna-Patkowska: *FT-IR/PAS study of surface EDTA-ZnO interactions*
12. M. Maliński, J. Zakrzewski: *Theory of Piezoelectric Detection of the Defects Located on the Surfaces of Semiconducting Samples*
13. Sylwia Pasieczna-Patkowska, Janusz Ryczkowski: *FT-IR/PAS of the EDTA adsorbed on alumina with the various surface areas*
14. Janusz Ryczkowski: *Recent applications of FT-IR/PAS studies in catalysis*
15. Anna Sikorska, Antoni Śliwiński, Bogumił Linde: *Examination of the effect of dioxane 1,3 concentration in water mixture on thermal effusivity of the mixture using photoacoustic technique*
16. Tomasz Starecki: *Simultaneous multiple synchronous detection in photoacoustic measurements*
17. Łukasz Szajnecki, Sylwia Pasieczna-Patkowska, Janusz Ryczkowski: *FT-IR/PAS applications for the structure studies of selected polymers*
18. Grzegorz Wójcik, Sylwia Pasieczna-Patkowska, Zbigniew Hubicki, Janusz Ryczkowski: *Investigation of platinum(IV) ions sorption on some SIRs by using Photoacoustic and DRS methods*
19. Grzegorz Wroński, Sylwia Pasieczna-Patkowska, Zbigniew Hubicki: *Mechanism of sorption sulpho-derivative organic chelating agents on strong base anion exchanger Amberlite IRA-402 by FT-IR/PAS and DRS methods*
20. J. Zakrzewski, M. Maliński, K. Strzałkowski, F. Firszt, S. Łęgowski, H. Męczyńska: *Piezoelectric Spectroscopic Studies of $Zn_{1-x-y}Be_xMn_ySe$ Mixed Crystals*