Workshop on Progress in Nanotechnology and Optoelectronics
25-27. April 2019, Lodz, Poland

under the AUSTRICIES of:
European Polymer Federation
President of the Board of the Foundation for Polish Science
Rector of Lodz University of Technology
Dean of Faculty of Chemistry, Lodz University of Technology

Preliminary program

Thursday 25 April

08:30 – 09:50  Registration and Welcome coffee
09:50 – 10:00  Welcome and opening

Functional nanomaterials I (chair – J. Ulanski)

10:00 – 10:40  Krzysztof Matyjaszewski
   Molecular engineering of nanostructured materials by Reversible Deactivation Radical Polymerization

10:40 – 11:05  Adam Pron
   Ternary and quaternary inorganic semiconductor nanocrystals for electronics and biomedicine: core and surface engineering

11:05 – 11:30  Stefan Jurga
   Nanomaterials as contrast agents

11:30 – 11:50  COFFEE BREAK

Functional nanomaterials II (chair – M. Kozanecki)

11:50 – 12:15  Francesca Nanni
   Multifunctional polymeric composite materials for 3d printing: the scenario in industry 4.0

12:15 – 12:40  Andrzej Galeski
   Nanomechanisms of plastic deformations of polymers

12:40 – 13:05  Marcin Stepien
   Curvature vs. π-conjugation: new routes to chiral and low-bandgap systems

13:05 – 14:30  Sandwich lunch
Synthesis of organic semiconductors (chair – M. Zagorska)

14:30 – 15:10 Klaus Müllen
Graphene nanoribbons - merging the conjugated polymer and graphene worlds

15:10 – 15:35 Yingping Zou
High performance polymer solar cells

15:35 – 16:00 Pierre Audebert
New insights in tetrazines and heptazines chemistry; synthetic improvements and original properties in fluorescence and photoactivation

16:00– 16:20 COFFEE BREAK and installation of posters

Simulation and models (chair – P. Polanowski)

16:20 – 16:45 Andrzej Sikorski
Dynamics in complex macromolecular systems. Simulations with the dedicated parallel machine ARUZ

16:45 – 17:10 Jiri Pfleger
Organic Electronic Memory Devices: how to make advantage from unwanted behaviour.

17:10 – 17:35 Zbigniew Klusek
Graphene hybrid systems. Physics and applications.

17:35 – 18:00 Marek Szymanski
Inverse problems in organic electronics

18:00 – 19:30 Poster session

20:00 – 22:30 Official dinner for invited speakers and guests
**Friday 26 April**

**Molecular Optoelectronics I (chair – T. Marszalek)**

09:00 – 09:40
Anna Köhler  
*Describing charge separation in organic semiconductors*

09:40 – 10:05
Juliusz Sworakowski  
*How accurate are energies of HOMO and LUMO levels in small-molecule organic semiconductors determined from cyclic voltammetry*

10:05 – 10:30
Eric Glowacki  
*Abundant organic semiconductor catalysts for a peroxide clean energy cycle*

11:30 – 11:50
**COFFEE BREAK**

**Molecular Optoelectronics II (chair – H. Bässler)**

11:50 – 12:30
Paul W. M. Blom  
*Charge transport in organic semiconductors*

12:30 – 12:55
Wojciech Pisula  
*Organic ultrathin transistors interconnecting Lodz and Mainz*

12:55 – 13:20
Jasper J. Michels  
*Structuring in thin-film solutions upon liquid-vapour mass exchange*

13:20 – 14:50
**Sandwich lunch**

**Molecular Optoelectronics III (chair – J. Jung)**

14:50 – 15:30
Marek Samoc  
*The use of upconversion processes in nanosystems for biological and theranostic applications*

15:30 – 15:55
Andy Monkman  
*Thermally activated delayed fluorescence from exciplexes, how dilution increases performance*

15:55 – 16:20
Luiz Pereira  
*Efficient design of OLEDs structure: electrical carrier transport and recombination*

16:20 – 16:40
**COFFEE BREAK**

**Inorganic and hybrid materials (chair – B. Luszczynska)**

16:40 – 17:05
Xinliang Feng  
*Polymer synthesis enabled by interfaces: towards a world of organic 2D materials*

17:05 – 17:30
Jean-François Gerard  
*Nanostructuration of polymers from assembling ionic liquids and metal-oxo clusters*

17:30 – 17:55
Malgorzata Jakubowska  
*Graphene pastes and inks for printing and their application in electronics and medicine*

18:00 – 20:00
**Poster session**

18:15 – 19:00
Meeting of Polish Platform for Printed Electronics

20:30 – 23:00
**Informal dinner**
Saturday 27 April

Department of Molecular Physics Alumnae & Co-workers - Overview

Session DMP I (chair L. Okrasa)

09:00 – 9:15
Piotr Polanowski
Simulation of aggregation process in frame of DLL model

09:15 – 9:30
Jeremiasz K. Jeszka
Simulations of synthesis of polymer brushes from the surface of nanostructures

09:30 – 9:45
Gisele Boiteux
Segregated polymer-carbon nanofillers composites with specific thermal and electrical properties

09:45 – 10:00
Ireneusz Glowacki
Solution-processed OLEDs

10:00 – 10:15
Jaroslaw Jung
Technology of Real-World Analyzers (TAUR)

10:15 – 10:30
Aleksandra Wypych-Puszkarz
Functional materials investigated by means of broadband dielectric spectroscopy

10:30 – 10:45
Marcin Kozanecki
Photo and thermal stability of Ag nanoparticles stabilized by sodium citrate

10:45 – 11:00
Marcin Pastorczak
Femtosecond infrared pump – stimulated Raman probe spectroscopy: the method and its first application to study vibrational relaxation pathway in liquid water

11:00 – 11:20
COFFEE BREAK

Session DMP II (chair I. Glowacki)

11:20 – 11:35
Piotr Cywinski
A day in the life of a patent examiner

11:35 – 11:50
Andrzej Rybak
Polymer composites for energy applications: challenges and opportunities

11:50 – 12:05
Lidia Okrasa
Relaxation processes in macromolecules with complex structure

12:05 – 12:20
Pawel Miskiewicz
Dielectric Materials for Displays

12:20 – 12:35
Olivier Siri
Metallo-oligomers synthesis: from solution to surface

12:35 – 12:50
Tomasz Marszalek
Organic Field Effect transistors from lab scale (DMP) to potential application

12:50 – 13:10
Beata Luszczynska
Organic photodetectors- examples of devices with fast time response and high responsivity

13:10 – 13:30
Jacek Ulanski
Recent progress in printed OLEDs

13:30 – 13:40
Closing remarks

14:00 – 17:00
Informal party