



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

under the AUSPICES 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 Proń**
Ternary and quaternary inorganic semiconductor nanocrystals for electronics and biomedicine: core and surface engineering
- 11:05 – 11:30 **Stefan Jurga**
Multifunctional nanomaterials for biomedical applications
- 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 Stepień**
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

Zbigniew Klusek

Graphene hybrid systems. Physics and applications

17:10 – 17:35

Marek Szymański

Inverse problems in organic electronics

17:40 – 19:40

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 – continuation

10:05 – 10:30

Eric Daniel Głowacki

Abundant organic semiconductor catalysts for a peroxide clean energy cycle

10:30 – 11:00

COFFEE BREAK

Molecular Optoelectronics II (chair – H. Bässler)

11:00 – 11:40

Paul Blom

Charge injection and transport in organic semiconductors

11:40 – 12:05

Wojciech Pisula

Organic ultrathin transistors interconnecting Lodz and Mainz

12:05 – 12:30

Jasper J. Michels

Structuring in thin-film solutions upon liquid-vapour mass exchange

12:30 – 12:55

Jiří Pflieger

Organic Electronic Memory Devices: How to make advantage from unwanted behaviour

12:55 – 14:30

Sandwich lunch

Molecular Optoelectronics III (chair – J. Jung)

14:30 – 15:10

Marek Samoć

The use of upconversion processes in nanosystems for biological and theranostic applications

15:10 – 15:35

Andy Monkman

Thermally activated delayed fluorescence from exciplexes, how dilution increases performance

15:35 – 16:00

Luiz Pereira

Efficient design of OLEDs structure: electrical carrier transport and recombination

16:00 – 16:30

COFFEE BREAK

Inorganic and hybrid materials (chair – B. Luszczynska)

16:30 – 16:55

Xinliang Feng

Polymer synthesis enabled by interfaces: towards a world of organic 2D materials for electronics

16:55 – 17:20

Jean-François Gérard

Nanostructuring of polymers from assembling ionic liquids and metal-oxo clusters

17:20 – 17:45

Malgorzata Jakubowska

Graphene composites in biomedical applications

18:00 – 19:00

Meeting of Polish Platform for Printed Electronics

18:00 – 20:00

Poster session

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**
Investigation of diffusion limited aggregation in frame of the dynamic lattice liquid model
- 09:15 – 9:30 **Jeremiasz K. Jeszka**
Properties of polymer brushes obtained using Controlled Radical Polymerization – Monte Carlo simulation studies
- 09:30 – 9:45 **Gisèle 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-Puszkarcz**
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 (fs-IR-SRS): the method and it's 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 **Olivier Siri**
Metallo-oligomers synthesis: from solution to surface
- 12:20 – 12:35 **Tomasz Marszalek**
Organic Field Effect Transistors from a lab scale to the potential application
- 12:35 – 12:50 **Beata Luszczynska**
Organic photodetectors - examples of devices with fast time response and high responsivity
- 12:50 – 13:05 **Jacek Ulanski**
Recent progress in printed OLEDs

13:05 – 13:15 Closing remarks

14:00 – 17:00 Informal party

