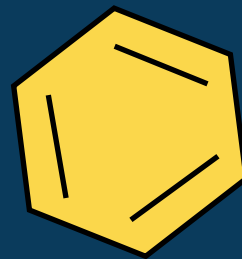
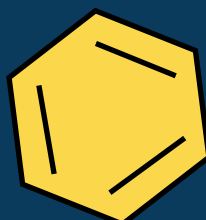




IFSOE
2015



School-conference program



September 20-25, 2015
Moscow region, Russia
Soyuz Hotel
www.ispm.ru/ifsoe-2015

2nd INTERNATIONAL FALL SCHOOL ON ORGANIC ELECTRONICS – 2015 (IFSOE-2015)

Organizers

Division of Chemistry and Material Science of Russian Academy of Sciences

Enikolopov Institute of Synthetic Polymeric Materials of Russian Academy of Sciences (ISPM RAS)

Lomonosov Moscow State University (MSU)

Russian Science Foundation (RSF)

Russian Foundation for Basic Research (RFBR)

Federal Agency of Scientific Organizations

Scientific program

- 1) **Fundamentals of organic electronics:** charge transport, modeling, photophysics, etc.
- 2) **Materials for organic electronics:** organic conductors and semiconductors, dielectrics, substrates, etc.
- 3) **Organic field-effect transistors:** single crystal, polymer and monolayer OFETs, integrated circuits and related devices.
- 4) **Organic light-emitting devices:** OLEDs and OLETs, white light-emitting devices, TADF devices, organic lasers.
- 5) **Organic and hybrid solar cells:** small molecules and polymer photovoltaics, tandem cells, perovskites-based photovoltaics, etc.
- 6) **Organic sensors:** physical (pressure, temperature, photo, etc.) sensors, chemo- and biosensors.
- 7) **Characterization techniques:** various spectroscopy, microscopy, and x-ray scattering techniques, charge mobility measurements, thermal and surface analysis, HOMO and LUMO evaluation, biomedical applications, etc.
- 8) **Technologies of organic electronics:** printing of organic materials and devices, roll-to-roll techniques, ink formulations, encapsulation, etc.

School Chairs

Prof. Sergey Ponomarenko (Enikolopov Institute of Synthetic Polymeric Materials of RAS, Russia)

Prof. Dmitry Paraschuk (Lomonosov Moscow State University, Russia)

International Advisory Board

Prof. Vladimir Agranovich (Institute for Spectroscopy RAS, Russia)

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Local Organizing Committee

Alexey Sizov – *workshop secretary*

Dr. Elena Agina

Askold Trul

Technical Partner

Professional Congress Organizer – UniFest Congress

Project Coordinator – Tatiana Volkova

IFSOE-2015 Time Schedule

	Sunday September 20th	Monday September 21th	Tuesday September 22th	Wednesday September 23th	Thursday September 24th	Friday September 25th
	<i>Conference</i>			<i>School</i>		
9:00		Dago de Leeuw	Jean Roncali	Luisa Torsi	Ma Dongge	Alexey Komolov Mikhail Vener
10:00	Visit to Moscow Kremlin and Russian Diamond Fund (optional)	Johannes Gierschner	Vladimir Dyakonov	Fabio Biscarini	Antonio Facchetti	Viktor Ivanov Sergey Novikov
11:00			Coffee-break			Closing ceremony. Dmitry Parashchuk
12:00	Lunch	Aldo Di Carlo	Valerii Kobryanskii	Paul Berger	Pavel Troshin Artem Bakulin	12:00
13:00		Martijn Kemerink	Dimitri Ivanov	Stephan Kirchmeyer	Dmitry Godovsky Albert Nasibulin	13:00
14:00						14:00
	Registration at ISPM					
	RAS					
15:00	16:00 departure to Conference Site	Oral Talks 1	Oral Talks 2	Oral Talks 4		Departure
16:00			Coffee-break			16:00
17:00	Hotel arrival. Registration	Poster session 1	Oral Talks 3	Poster session 2		17:00
18:00						18:00
19:00		Dinner			Dinner	19:00
	<i>School</i>					
20:00	School opening. Christoph Brabec	Sport activities (swimming pool, wellness, spa)	Moscow sightseeing tour	Conference dinner	Sport activities (swimming pool, wellness, spa)	20:00
21:00	Welcome-party					21:00
22:00-22:30						22:00-22:30

Sunday, September 20th

10:00 – 16:00	Visit to Moscow Kremlin (optional) / Lunch Registration at ISPM RAS. Departure to conference site
19:00 – 20:00	Dinner
20:00 – 20:15	School opening
20:15 – 21:15	T-1. <i>Christoph Brabec</i> . Principal failure and degradation mechanisms of organic semiconductors
21:15 – 22:30	Welcome-party

Monday, September 21st

8:00 – 9:00	Breakfast
	Chair: Christoph Brabec
9:00 – 10:00	T-2. <i>Dago de Leeuw</i> . Nuclear tunneling based hopping transport in organic semiconductors
10:00 – 11:00	T-3. <i>Johannes Gierschner</i> . Photophysics in Luminescent Single Crystals for Organic Optoelectronics
11:00 – 11:30	Coffee-break
	Chair: Jean Roncali
11:30 – 12:30	T-4. <i>Aldo Di Carlo</i> . Design, fabrication and scaling up of Mesoscopic Solar cells: from dye sensitization to perovskites
12:30 – 13:30	T-5. <i>Martijn Kemerink</i> . Organic solar cells as non-equilibrium devices
13:30 – 15:00	Lunch
	Oral Talks 1. Chair: Dmitry Paraschuk
15:00 – 15:15	O-1. <i>Yulia Krupskaya</i> . Fx-TCNQ family for systematic studies on organic single crystals
15:15 – 15:30	O-2. <i>Luidmila Kudriashova</i> . Photoluminescent Kinetics in Crystalline Films of Thiophene-Phenylene Co-Oligomers
15:30 – 15:45	O-3. <i>Alexey Sizov</i> . Self-assembled monolayer field-effect transistors based on Langmuir-Blodgett films of organosilicon derivatives of conjugated oligomers
15:45 – 16:00	O-4. <i>Arthur Mannanov</i> . Fluorescence Dynamics from a Monolayer of Organic Semiconductor
16:00 – 16:15	O-5. <i>Elena Agina</i> . Polymer surface engineering for efficient printing of conductive metal nanoparticle inks
16:15 – 16:30	O-6. <i>Andrey Sosorev</i> . Determining the limiting factor for the organic solar efficiency with a new analytical kinetic model
16:30 – 17:00	Coffee-break
17:00 – 18:30	Poster session 1 (P-1 – P-23)
19:00 – 20:00	Dinner
20:00 – 22:30	Sport activities

Tuesday, September 22th

8:00 – 9:00	Breakfast
	Chair: Aldo Di Carlo
9:00 – 10:00	T-6. <i>Jean Roncali</i> . Design of active materials for organics photovoltaics: dead-ends and promises
10:00 – 11:00	T-7. <i>Vladimir Dyakonov</i> . Charge Carrier Recombination and Electronic Traps in Perovskite Solar Cells
11:00 – 11:30	Coffee-break
	Chair: Johannes Gierschner
11:30 – 12:30	T-8. <i>Valerii Kobryanskii</i> . Conjugated polymers and carbon materials with low defect content for organic electronics
12:30 – 13:30	T-9. <i>Dimitri Ivanov</i> . Structure of the active layers of organic electronic devices as assessed by X-ray scattering and microscopy
13:30 – 14:30	Lunch
	Oral Talks 2. Chair: Vladimir Dyakonov
14:30 – 14:45	O-7. <i>Oleg Kozlov</i> . Electron and Hole Transfer in Organic Photovoltaics: Insights from Ultrafast Spectroscopy
14:45 – 15:00	O-8. <i>Riccardo Volpi</i> . Monte Carlo Simulations for Organic Materials
15:00 – 15:15	O-9. <i>Tejas Sherkar</i> . Dielectric Effects at Organic/Inorganic Interfaces in Nanostructured Devices
15:15 – 15:30	O-10. <i>Hassan Abdalla</i> . Effective Temperature and Universal Conductivity Scaling in Organic Semiconductors
15:30 – 15:45	O-11. <i>Stavros Athanasopoulos</i> . Understanding diffusion of charged, singlet and triplet excitations in disordered organic semiconductors
15:45 – 16:00	O-12. <i>Alexei Chepelianskii</i> . Low-temperature transport properties of long lived photo-excitations in organic materials
16:00 – 16:15	O-13. <i>Nikolaos Felekidis</i> . Open circuit voltage and efficiency in ternary OPV blends
16:15 – 16:45	Coffee-break
	Oral Talks 3. Chair: Dimitri Ivanov
16:45 – 17:00	O-14. <i>Niko Van den Brande</i> . Thermal characterization of thin layers for polymer photovoltaics by fast scanning chip calorimetry
17:00 – 17:15	O-15. <i>Maxime Defour</i> . New methodology based on fast scanning calorimetry to determine the eutectic composition of polymer/fullerene organic photovoltaics
17:15 – 17:30	O-16. <i>Yuriy Luponosov</i> . Design of donor-acceptor oligomers with electron-withdrawing alkyldicyanovinyl groups for solution-processed organic solar cells
17:30 – 17:45	O-17. <i>Solmaz Torabi</i> . Fullerene derivatives functionalized with triethylene glycole side chains as high dielectric constant acceptors in bulk heterojunction solar cells
17:45 – 18:00	O-18. <i>Irina Klimovich</i> . Low Band-Gap Benzoxadiazole-Based Conjugated Polymers for Organic Solar Cells
18:00 – 18:15	O-19. <i>Ferdinand Melkonyan</i> . Bithiophenesulfonamide (BTSA): a New Acceptor Building Block for the π -Conjugated Donor-Acceptor Polymer Semiconductors

18:15 – 19:00	Dinner
19:00 – 22:30	Moscow Sightseeing tour

Wednesday, September 23th

8:00 – 9:00	Breakfast
	Chair: Martijn Kemerink
9:00 – 10:00	T-10. <i>Luisa Torsi.</i> Printable bioelectronics to investigate functional biological interfaces
10:00 – 11:00	T-11. <i>Fabio Biscarini.</i> Implantable Organic Electronics for Spinal Cord Injury
11:00 – 11:30	Coffee-break
	Chair: Sergey Ponomarenko
11:30 – 12:30	T-12. <i>Paul Berger.</i> Organic Photovoltaics for Indoor Applications
12:30 – 13:30	T-13. <i>Stephan Kirchmeyer.</i> Flexible Touch Sensors made from PEDOT:PSS
13:30 – 15:00	Lunch
	Oral Talks 4. Chair: Pavel Troshin
15:00 – 15:15	O-20. <i>Oleg Borshchev.</i> Benzothiadiazole-based nanostructured organosilicon luminophores for organic optoelectronics
15:15 – 15:30	O-21. <i>Maxim Kazantsev.</i> Single crystals grown from novel thiophene-phenylene oligomer for organic optoelectronics
15:30 – 15:45	O-22. <i>Vladimir Bruevich.</i> Raman spectroscopy as a probe for intermolecular interaction and domain boundaries in organic semiconducting single crystals
15:45 – 16:00	O-23. <i>Silvia Conti.</i> Towards high performance all printed Organic Field Effect Transistors
16:00 – 16:15	O-24. <i>Maria Kotova.</i> Printable multibit resistive memory based on polymer admixtures
16:15 – 16:30	O-25. <i>Fabrizio Antonio Viola.</i> Flexible multimodal sensors based on Organic Charge Modulated Thin Film Transistors
16:30 – 17:00	Coffee-break
17:00 – 18:30	Poster session 2 (P-24 – P-54)
19:00 – 22:30	Conference dinner

Thursday, September 24th

8:00 – 9:00	Breakfast
	Chair: Fabio Biscarini
9:00 – 10:00	T-14. <i>Ma Dongge.</i> Organic semiconductor heterojunctions and its application in organic light-emitting diodes
10:00 – 11:00	T-15. <i>Antonio Facchetti.</i> Electronic Materials Design and Their Implementation in Field-Effect Devices

11:00 – 11:30	Coffee-break
	Chair: Paul Berger
11:30 – 12:00	I-1. <i>Pavel Troshin</i> . Towards understanding photochemical degradation of electron donor and acceptor components of organic bulk heterojunction solar cells
12:00 – 12:30	I-2. <i>Artem Bakulin</i> . Optical vibrational control of charge transport in organic semiconductors
12:30 – 13:00	I-3. <i>Dmitry Godovsky</i> . Resistive switch Red-Ox behavior as mechanism behind the operation of polyaniline memristors and neural network elements
13:00 – 13:30	I-4. <i>Albert Nasibulin</i> . Carbon nanomaterials for flexible and transparent electronics
13:30 – 15:00	Lunch
15:00 – 19:00	Trip to New Jerusalem Monastery (optional)
19:00 – 20:00	Dinner
20:00 – 22:30	Sport activities

Friday, September 25th

8:00 – 9:00	Breakfast
	Chair: Dmitry Paraschuk
9:00 – 9:30	I-5. <i>Alexey Komolov</i> . Electronic properties of conjugated organic films and of their interfaces with solid surfaces studied by electron spectroscopy techniques
9:30 – 10:00	I-6 <i>Mikhail Vener</i> . Toward a unified description of different intermolecular interactions in organic crystals. Combined X-ray Crystallographic, Infrared/Raman Spectroscopic and solid-state DFT study
10:00 – 10:30	I-7. <i>Viktor Ivanov</i> . Computer simulation of microscopic ordering and charge transport in thiophene-based conjugated polymer PBTTT-C14
10:30 – 11:00	I-8. <i>Sergey Novikov</i> . Charge transport in amorphous organic materials: effect of spatial correlation of the random energy landscape
11:00 – 12:00	I-9. <i>Dmitry Paraschuk</i> . Organic electronics in Russia: current state and perspectives. Closing ceremony.
13:30 – 15:00	Lunch
15:00 – 15:15	Departure to Moscow

Poster session 1

Monday, September 21th, 17:00

Alam, Shahidul	P1	Investigation of temperature stability of single carrier hole only devices
Anisimov, Daniel S.	P2	Domain structure in semiconducting Langmuir films for monolayer organic field-effect transistors
Bakulin, Artem	P3	Optically induced phenomena in monolayer organic field-effect transistors
Becker, Christina S.	P4	Synthesis and photophysical properties of thieno[3,4-b]pyrazine containing conjugated polymers
Dominskiy, Dmitry I.	P5	Liquid-processed transition metal dichalcogenide films for field-effect transistors
Dronov, Mikhail A.	P6	Modeling resistive switching in organic-based ReRAM
Drozdov, Fedor V.	P7	Influence of solvent vapor annealing on the performance of organic solar cells
Emelianov, Aleksei V.	P8	Single-molecular junctions based on polyaniline molecules and single-walled carbon nanotubes contacts
Fedorov, Igor V.	P9	Narrow-spectrum optoelectronic switches based on thiocarbocyanine dye self-organized nanostructures
Feldman, Elizaveta V.	P10	Tip-enhanced Raman spectroscopy as a probe for organic bulk heterojunction and semiconducting monolayers
Grigorieva, Anastasia V.	P11	Synthesis of CH ₃ NH ₃ PbI ₃ /TiO ₂ films in solvothermal and supercritical fluids
Guseynov, Abdul-Akim D.	P12	Synthesis of ASnI ₃ (A=Cs ⁺ , CH ₃ NH ₃ ⁺) perovskite-like structures and their optical performance
Ivanova, Olga P.	P13	The effect of nanoparticle concentrations and film thicknesses on the electrophysical properties of PPX+CdS composites
Kahle, Frank-Julian	P14	Applicability of MIS-CELIV to Determine Charge Carrier Mobilities in Organic Semiconductors
Kleymyuk, Elena A.	P15	Synthesis and properties of oligoarylsilanes with various conjugation lengths and degrees of branching
Kolesnikov, Efim A.	P16	Synthesis of CH ₃ NH ₃ PbI ₃ /TiO ₂ composite films for application in solar power engineering
Koutny, Jan	P17	New organic materials with high solid state fluorescence
Krupskaya, Yulia	P18	Tuning the charge transfer in Fx-TCNQ/Rubrene single-crystal interfaces
Leonova, Alexandra S.	P19	Polyaniline-based electrochemical sensor for selective ascorbic acid determination
Levitskaya, Alina I.	P20	Molecular design of polymer materials with quadratic nonlinear optical response: structure-property relationship for epoxy-based oligomers with chromophore-containing moieties in the side chain
Malakhova, Yulia N.	P21	Structurization in Langmuir films polyaniline prospectively polymer for making the active layer of organic memristor
Mannanov, Artur L.	P22	Optimization of organic solar cells based on star-shaped oligothiophenes
Popov, Alexandr G.	P23	Molecular orientation of photoinduced radical poly(3-hexylthiophene) in bilayer P3HT PCBM

Poster session 2

Wednesday, September 23th, 17:00

Postnikov, Valery A.	P24	Solution processed large single crystal films of terminal-substituted quaterphenyl
Pushkarev, Anatoly	P25	OLEDs and OPVs based on polyvinylcarbazole with BODIPY dopants
Pushkarev, Anatoly	P26	Photophysical properties of Sm, Eu, Gd and Yb complexes with dithia- and diselenophosphinate ligands

Sanchez Vera, Edna Luz	P27	Characterization of a Label-free single cell impedance with 3D micro-electrodes passivated with 3D organic structures
Saunina, Anna Yu.	P28	Transport level and mobility of charge carriers in disordered organic materials at moderate concentration
Sharipova, Anastasiya	P29	Self-organization of azochromophores in design of polymer nonlinear-optical materials; Molecular modeling and DFT calculations
Shi, Junqing	P30	Solid State Luminescence Enhancement in Dicyano-Distyrylbenzenes: Intra- and Intermolecular Contributions
Sionova, Marcela	P31	Novel small molecules for organic electronics and photonics
Skorotetcky, Maxim S.	P32	Novel highly efficient blue-emitting branched oligoarylsilanes based on phenyloxazoles
Solodukhin, Alexander N.	P33	New star-shaped tris(2-methoxyphenyl)amine-based donor-acceptor oligomers for organic photovoltaics
Starikova, Tatiana Yu.	P34	Synthesis and Photophysical Properties of a Novel Cyan-Emitting Nanostructured Organosilicon Luminophore
Stritesky, Stanislav	P35	OFET transistors for logical circuit
Tereshchenko, Alexey S.	P36	Nanostructured organosilicon luminophores and their application in organic photonic and optoelectronic devices
Travkin, Vlad V.	P37	Tandem photovoltaic cells with hybrid organic/inorganic junctions
Trukhanov, Vasilii A.	P38	Comparison of normal and inverted device architectures for novel star-shaped oligothiophene-based organic solar cells
Trul, Askold A.	P39	Disiloxane derivatives of BTBT for monolayer organic field-effect transistors
Turkina, Polina I.	P40	Water-dispersible carbon nanotubes / polyaniline composites with improved electrical conductivity
Uvarov, Mikhail N.	P41	1,8-diazabenzopyrenes and 1,7-diazaperylenes: synthesis and characterization as electron donor and acceptor molecules
Naumov, Artem	P42	Effects of static and dynamic disorder on exciton and charge carrier transport in π -conjugated systems
Konstantinov, Vlad G.	P43	Effect of sample size on photoluminescence of crystalline thiophene-phenylene co-oligomers
Mumyatov, Alexander V.	P44	Photovoltaic performance of some conventional and innovative fullerene- and polymer-based photoactive materials
Khanin, Dmitry A.	P45	Effects of donor and acceptor units on physical and photovoltaic properties of D-A oligomers
Toropynina, Victoria Y.	P46	Unsymmetrical donor-acceptor oligomer based on triphenylamine: synthesis and properties in comparison with star-shaped analog
Roesch, Roland	P47	Influence of electrical stress on the degradation of polymer solar cells
Van Dyck, Colin	P48	Molecular Rectifiers: A new design based on asymmetric anchoring moieties
Belousov, Sergei A.	P49	Simulation of outcoupling in OLEDs with structured cathodes with finite-difference time-domain method
Bogdanova, Maria V.	P50	Drift-diffusion simulation of charge transport in organic semiconductors as a part of multiscale modeling chain for organic devices
Burganov, Timur I.	P51	Differences in photochemical properties of phospholes and 1,2-diphospholes
Dominguez, Sergio Ulises Espinosa	P52	Conjugated Polyelectrolytes for Electronic and Optoelectronic Applications
Rozhkov, Sergey S.	P53	Synthesis of conjugated oxadiazole cycles systems on the base of maleic anhydride
Stankevich, Andrei V.	P54	Increase of luminescence via small molecules alignment

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