



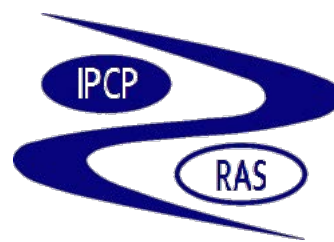
HOPE-PV 2020

2nd International School on Hybrid,
Organic and Perovskite
Photovoltaics

SCHOOL PROGRAM

Organizers

Institute for Problems of Chemical
Physics of Russian Academy of
Sciences



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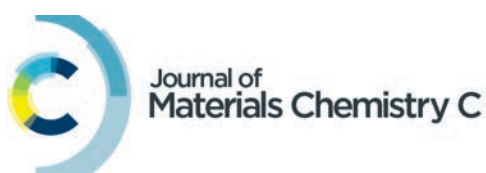
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Special issues of open-access *Energies* and *Organics* journals will be covering HOPE-PV 2020. *Energies* offers 30% discount for all submissions from the school participants. Publishing in *Organics* is free of processing charges in 2020. All submissions will be a subject of peer review.



Program

Tuesday, November 3, 2020

UTC time		Speaker's local time
11:00	Opening nanoGe	
11:05	Welcome from organizers	
<i>Session 1</i>		
<i>Chair: Prof. Keith J. Stevenson</i>		
11:10	Plenary lecture: Prof. Michael Graetzel The genesis and rise of perovskite solar cells	12:10
11:55	Tutorial lecture: Prof. Monica Lira-Cantu Application of metal oxides in highly stable and efficient perovskite solar cells	12:55
12:35	Tutorial lecture: Dr. Jovana Milic Templating effects in layered hybrid perovskites: a subtle interplay	13:35
13:15 <i>Short break</i>		
<i>Session 2</i>		
<i>Chair: Dr. Sergey Adonin</i>		
13:30	Invited lecture: Prof. Alexey Tarasov New features of perovskite processing with reactive polyiodide melts	16:30
14:00	Tutorial lecture: Prof. Juan Bisquert Fundamental concepts of photovoltaics and operation of devices for solar energy conversion	15:00
14:40	Oral talk I Giorgio Bardizza Universal measurement protocol for perovskite based photovoltaic devices	15:40
14:55	Oral talk II Dounya Barrit In situ investigation and photovoltaic devices: sequential formation of tunable-bandgap mixed-halide lead-based perovskites	17:55

15:10	Oral talk III Nataniel Gallop 'Just Vibing': coupled organic and inorganic sublattices in organohalide perovskite solar cells	15:10
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Wednesday, November 4, 2020

UTC time		Speaker's local time
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09:00	Opening nanoGe	
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Session 3

Chair: Prof. Pavel Troshin

09:05	Tutorial lecture: Prof. Francesca Brunetti Printable and flexible solar cells and energy storage systems: opportunities and challenges	10:05
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09:45	Tutorial lecture: Prof. Emmanuel Kymakis 2D materials interface engineering for efficient and stable perovskite photovoltaics	11:45
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10:25	Invited lecture: Prof. Qinye Bao Interfacial electronic structures in perovskite solar cells	18:25
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10:55	<i>Short Break</i>	
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Session 4

Chair: Dr. Jovana Milic

11:10	Tutorial lecture: Dr. Luigi Martiradonna An insider's view of publishing in Nature Materials	11:10
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11:50	Oral talk IV Aleksandra Boldyreva Exploring the radiation stability of perovskite solar cells	14:50
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12:05	Oral talk V Lavrenty Gutsev Unravelling the material composition effects on the gamma ray stability of lead halide perovskite solar cells: MAPbI ₃ breaks the records	15:05
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12:20	Oral talk VI Sergey Tsarev Improving operational stability of perovskite solar cells using ZnO electron transport layer	15:20
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12:35	Oral talk VII Olga Yamilova What is killing organic photovoltaics: light-induced crosslinking as a general degradation pathway of organic conjugated molecules	15:35
12:50	Oral talk VIII Andriy Zhugayevych Comparison of non-fullerene acceptors: how geometry influences electronic transport	15:50
13:05	<i>Short break</i>	
13:15	Poster session (1.5 h till 14:45)	

Thursday, November 5, 2020

UTC time		Speaker's local time
11:00	Opening nanoGe	
<i>Session 5</i>		
<i>Chair: Dr. Lavrentiy Gutsev</i>		
11:05	Tutorial lecture: Prof. Artem Bakulin Ultrafast spectroscopy for organic photovoltaics – application to identifying design rules for low-voltage loss solar cells	11:05
11:45	Tutorial lecture: Prof. Sergey Ponomarenko Future approaches to organic photovoltaics	14:45
12:25	Invited lecture: Prof. Vida Engmann Degradation and stabilization of organic solar cells	13:25
12:55	<i>Short Break</i>	
<i>Session 6</i>		
<i>Chair: Prof. Vida Engmann</i>		
13:10	Invited lecture: Dr. Sergey Adonin Beyond lead: halide complexes of 15 and 16 group elements, their polyhalide derivatives and their use in materials design	16:10

13:40	Invited lecture: Dr. Shijing Sun Data-driven discovery in the search for stable perovskite photoabsorbers	08:40
14:10	Tutorial lecture: Prof. Christoph Brabec AMANDA - Line 1: can AI guided device engineering resolve long time challenges in solution processed photovoltaics?	15:10
14:50	Closing remarks and awards for best posters and short oral talks given by early stage researchers	

Friday, November 6, 2020

Additional on-site session at the Institute for Problems of Chemical Physics of RAS

UTC time		Speaker's local time
07:05	Prof. Sergey Aldoshin Current status of the RSF project «Development of a manufacturing technology for highly efficient and stable perovskite solar cells on steel substrates» at IPCP RAS	10:05
07:15	Prof. Dmitry Parashchuk Junction-free organic solar cells	10:15
07:45	Dr. Yuri Luponosov Development of donor-acceptor small molecules for organic solar cells	10:45
08:15	Dr. Alexander Akkuratov Organic solar cells based on new conjugated polymers for indoor applications	11:15
08:45	Prof. Gennady Novikov Inorganic solar cells based on quaternary copper compounds of $Cu_{2-\delta}ASnS_4-ySe_4$ (A = Zn, Fe, Ni, Mg, Sr, Ba, Mn, Cr, etc.): the achievements and prospects	11:45
09:15	<i>Short break</i>	12:15
10:15	Dr. Danila Saranin The use of Mxenes for improved charge collection in perovskite solar cells	13:15
10:45	Prof. Pavel Troshin Unravelling major degradation pathways in lead halide perovskite solar cells	13:45

11:15	Dr. Sergey Tsarev Stabilization of perovskite solar cells with ZnO electron transport layer	14:15
11:45	Dr. Lyubov Frolova Design of efficient and stable perovskite solar cells based on all-inorganic complex lead halides	14:45
12:15	Dr. Sergey Luchkin Nanoscale imaging of functional properties of perovskite solar cell using atomic force microscopy	15:15
12:45	Dr. Alexandra Boldyreva Exploring the radiation stability of perovskite solar cells	15:45
13:15	Dr. Lavrentiy Gutsev Theoretical studies of gamma-induced self-healing of MAPbI ₃ : breaking the records	16:15