



FRANCE-JAPAN WORKSHOP ON OPTOELECTRONICS & PHOTONICS

Amphitheatre Charpak LPNHE
Campus Jussieu, Paris
Sorbonne Université

31st May – 1st June 2018



Full Programme

Thursday – 31st May

9:00-9:25 Welcome & opening remarks (organising committee)
IPCM presentation (Louis FENSTERBANK, Dir. IPCM)

Morning session 1 – Chair: **Fabrice MATHEVET**

9:25-9:50 "Outlook for OPERA research based on CT states" – Chihaya ADACHI

9:50-10:15 "Organic Photosensitizers for High-performance and Stable Dye Solar Cells: Synthesis, Characterization and Integration in Semi-Transparent Solar Panels" – Renaud DEMADRILLE

10:15-10:40 "TADF aiming for bio-applications" – Youichi TSUCHIYA

10:40-11:05 COFFEE BREAK (reception area)

Morning session 2 – Chair: **Sébastien CHENAIS**

11:05-11:30 "In silico material design, multiscale simulation, and DNP-NMR for OLEDs" – Hironori KAJI

11:30-11:55 "Boron DIPYromethene (BODIPY) and derivatives in organic electronics" – Nicolas LECLERC

11:55-12:20 "Metal halide perovskite solar cells and LED: Defects and stability" – Gabseok SEO

12:20-12:45 "Infrared optoelectronic in nanocrystal using intraband transitions" – Emmanuel LHUILLIER

12:45-14:30 LUNCH (Sorbonne campus)

Afternoon session 1 – Chair: **Jean Charles RIBIERRE**

14:30-14:55 "Highly oriented and crystalline semi-conducting and conducting polymer films prepared by high-temperature rubbing" – Laure BINIEK

14:55-15:20 "A novel molecular design strategy for thermally activated delayed fluorescence materials" – Masashi MAMADA

15:20-15:45 "Self-assembled donor-acceptor block co-oligomers for photovoltaic applications" – Stéphane MERY

15:45-16:05 "Molecular design for highly durable OLED materials" – Ko INADA

16:05-16:30 COFFEE BREAK (reception area)

Afternoon session 2 – Chair: **Fabrice CHARRA**

16:30-16:55 "STM investigation of energy conversion and transfer at a single molecule" – Yousoo KIM

16:55-17:20 "STM-induced light emission: from molecular LED to subnanometric optical microscopy" – Guillaume SCHULL

17:20-17:45 "Smart' molecular building blocks for fluorescent, self-assembling, molecular monolayers on graphene" – Lydia SOSA VARGAS

Full Programme

Friday – 1st June

Morning session 1 – Chair: **David KREHER**

- 9:00-9:25** *"High-performance organic light-emitting devices with E-type delayed fluorescence emitters"*
– Hajime NAKANOTANI
- 9:25-9:50** *"Novel TADF concept"* – Morgan AUFFRAY
- 9:50-10:15** *"Organic long persistent luminescence from a mixture of donor and acceptor"* – Ryota KABE
- 10:15-10:40** *"Strong-coupling regime between self-organized organic-dye excitons and surface plasmons"*
– Fabrice CHARRA
- 10:40-11:05** COFFEE BREAK (reception area)

Morning session 2 – Chair: **Guillaume SCHULL**

- 11:05-11:30** *"Quasi continuous wave lasing from organic thin films"* – Fatima BENCHEIKH
- 11:30-11:55** *"Vertical external-cavity surface-emitting organic lasers"* – Sebastián CHENAIS
- 11:55-12:20** *"Near infrared thermally-activated delayed fluorescence and lasing from a solution-processable boron difluoride curcuminoid derivative"* – Jean-Charles RIBIERRE
- 12:20-12:30** *"Introduction to the organization, activities, and opportunities at the Center for Organic Photonics and Electronics Research"* – Mayumi KUDO

Prof. Chihaya ADACHI



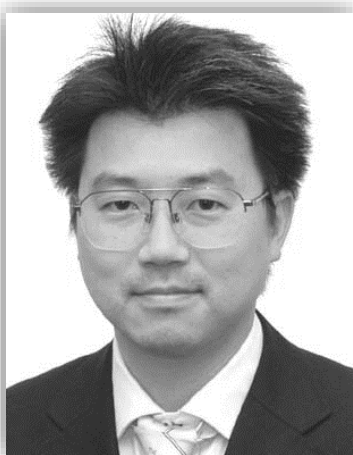
Prof. Adachi is currently the Director of the Center for Organic Photonics and Electronics Research at Kyushu University. His research focuses on the exploration of the elementary processes such as the electron injection to the organic and metallic layers, the charge transport in the organic layers, the charge recombination at the organic interfaces, the exciton formation and deactivation in the presence of the intense incident light, and so on. Furthermore, they are also dedicated to developing high-performance, organic (light-emitting) transistors, organic photovoltaics, organic memories, and organic laser diodes.

Prof. Yousoo KIM



Prof. Kim is currently the Director of Surface and Interface Science Laboratory at the RIKEN Institute in Japan. His research focuses on describing the details of energy transport and conversion at solid surfaces and interfaces in the nanoscale regime. They develop combined studies using scanning probe microscopy/spectroscopy and density functional theory calculation on well-defined surfaces under ultra-high vacuum conditions in order to understand basic mechanisms that occur at the single molecule/atomic level.

Prof. Hironori KAJI



Prof. Kaji is the group leader of the Laboratory of Molecular Materials Chemistry at Kyoto University. His team's research target is to develop high-performance organic electro-luminescence devices, organic solar cells, and polymer materials. They carry out the syntheses, device fabrications, precise structure characterizations, and quantum chemical calculations for high functional organic materials in addition to the detailed analyses of structures and dynamics by sophisticated solid-state NMR spectroscopy in order to obtain structure-dynamics-property relationships.

Prof. Jean Charles RIBIERRE



Prof. Ribierre is now professor in the State Key Laboratory of Modern Optical Instrumentation at the College of Optical Science and Engineering in Zhejiang University. The research activities of his laboratory mainly focus on the engineering and physics of organic light-emitting semiconductor materials and devices, including organic light-emitting diodes, organic field-effect transistors and organic semiconductor lasers. Previous to this position, he was associate professor at the Center for Organic Photonics and Electronics Research of Prof. Chihaya Adachi in Kyushu University.

DR. Fabrice CHARRA



Dr, Charra is the director of the Laboratoire d'Electronique et Photonique Organique (LEPO) at the Atomic Energy and Alternative Energies Commission (CEA), Paris-Saclay University. His research focuses in molecular nanophotonics; the control of light-molecule interactions (absorption, emission, conversion, transduction,...) at the nano-scale such as: Graphene-directed molecular assembly for photonics, the dynamics and photonics of self-assembled molecular systems and plasmon modes and plasmonic enhancements of light-molecule interactions,

OTHER INVITED SPEAKERS

Japan

Hajime	NAKANOTANI	Associate Professor	
Youchi	TSUCHIYA	Associate Professor	
Ryota	KABE	Assistant Professor	
Masashi	MAMADA	Assistant Professor	OPERA-Kyushu
Mayumi	KUDO	Postdoc	University
Morgan	AUFFRAY	Postdoc	
Fatima	BENCHEIKH	Postdoc	
Ko	INADA	Postdoc	
Gabseok	SEO	Postdoc	
Yousoo	KIM	Professor	RIKEN-SISL
Hironori	KAJI	Professor	Kyoto University

France

Stéphane	MERY	CNRS Researcher	IPCMS-Strasbourg
Guillaume	SCHULL	CNRS Researcher	
Laure	BINIEK	CNRS Researcher	Institut Charles Sadron
Renaud	DEMADRILLE	CEA Research Fellow	CEA-Grenoble
Fabrice	CHARRA	CEA Research Director	CEA-Saclay
Emmanuel	LHULLIER	CNRS Researcher	INSP-Sorbonne
Sébastien	CHENAIS	Associate Professor	LPL-Sorbonne
Lydia	SOSA VARGAS	CNRS Researcher	IPCM-Sorbonne
Jean-Charles	RIBIERRE	Professor	Zhejiang University
