

The 7th LIA NextPV International Workshop Program (v. 20180512)

University of Bordeaux Pey Berland (35 place Pey Berland, 33000 Bordeaux)

(see map end of document)

9th Dec (Sun), 2018 Afternoon: Group Discussion / Pre-meeting for Board Meeting

10th Dec (Mon), 2018

9:00 *Registration*

9:30 **Welcome** and overview of the LIA in 2018 (JF Guillemoles & Y. Okada)

9:45 **Invited Institution:** University of Bordeaux

10:00 **Invited talk** from ARMOR company (OPV)

10:20 **Talk on systems:** Pr. C. Alonso

10:45 *Group Photo*

11:00 *Coffee Break*

11:30 **Session on III-Vs and Advanced Concepts:** 4 talks (15' each)

Coordinators: Profs JF. Guillemoles, Y. Okada, Y. Nakano, S. Collin

Presenters: (1) Dr. N. Miyashita, **(2)** Dr. A. Delamarre, **(3)** M. Giteau, **(4)** Dr. S. Collin

12:30 *Lunch & Poster session*

14:30 **Session on OPVs, Perovskites, and colloidal QDs:** 8 talks (15' each)

Coordinators: Profs H. Segawa, T. Kubo, G. Hadziioannou, T. Toupance, E. Cloutet

Presenters: (1) Pr. H. Segawa, **(2)** Pr. T. Toupance, **(3)** Pr. T. Kubo, **(4)** Dr. S. Chambon, **(5)** Pr. K. Miyano, **(6)** Dr. A. Sharma, **(7)** Dr. F. Awai, **(8)** Dr. S. Almosni, **(10 mins short break in the middle)**

16:40 *Coffee Break*

17:10 **Board Meeting**

19:30 *Dinner*

11th Dec (Tue), 2018

9:30 **Session on systems:** 4 talks(15' each)

Coordinators: Profs M. Sugiyama, H. Akiyama, C. Alonso, D. Aureau

Presenters: (1) Pr. H. Akiyama, **(2)** Dr. D. Aureau, **(3)** Pr. M. Sugiyama, **(4)** Dr. C. Olivier

10:30 *Coffee Break*

11:00 **Poster Session**

12:00 *Lunch*

13:00 **Session on III-Vs and Advanced Concepts:** 4 talks (15' each)

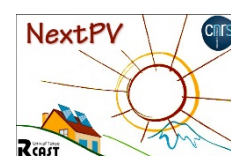
Coordinators: Profs JF. Guillemoles, Y. Okada, Y. Nakano, S. Collin, Z. Jehl

Presenters: (1) Pr. Nakano, **(2)** Dr. N. Cavassilas, **(3)** Dr. D. Suchet, **(4)** Dr. G. Almuneau

14:00 **Closing remarks, future of the LIA**

14:30-15:00 **Departure Visit of ELORPrintTec Facility (Campus University of Bordeaux, B8 building, Tram B, stop François Bordes, *see map end of document*)**

18:00 **Departure to Toulouse for those interested in visiting LAAS Laboratory**

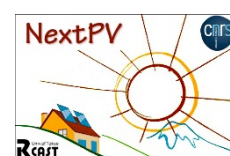


12th Dec (Wed), 2018

In Toulouse LAAS Tour (Coord. I. Massiot & G. Almuneau)	In Bordeaux PhD defense : Camille Geffroy (supervisors : Pr. H. Segawa (RCAST, Univ. Tokyo), Pr. G. Hadziioannou (Univ. Bordeaux) and Pr. T. Toupance (Univ. Bordeaux)
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13th Dec (Thur), 2018

Visit of IPVF, Palaiseau (Coord. J-F. Guillemoles)



Oral session presentations:

Session on III-Vs and Advanced Concepts :

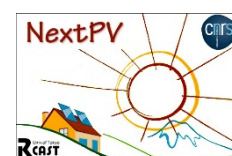
- Dr. A. Delamarre, "Solar cells peripheral surface passivation with field effect structures"
- Dr. D. Suchet, "Role of Ratchet States in Nanostructure Intermediate Band Solar Cells"
- M. Giteau, "Necessity for Light Trapping in Hot-Carrier Solar Cells"
- Dr. N. Miyashita, "ELO-released thin film solar cells and application to multi-junction devices"
- Prf. Y. Nakano, "Recent study on quantum microstructures for high-efficiency photovoltaic cells"
- Dr. N. Cavassilas, "Impact of electron-phonon scattering on the optical absorption-emission ratio"
- Dr. G. Almuneau, "High performance tunnel junctions based on type II heterostructures on GaAs for MJSC"
- Dr. S. Collin, "Cathodoluminescence: what we can do with your PV materials"

Session on OPVs, Perovskites, and colloidal QDs :

- Pr. H. Segawa, "High efficiency perovskite solar cells"
- Pr. T. Kubo, "Solution-processed short-wave infrared PbS colloidal quantum dot / ZnO nanowire solar cells"
- Pr. K. Miyano, "Unified view over modulation spectroscopies of perovskite PVs"
- Dr. F. Awai, "Perovskite solar cells using conducting polymers as hole transporting materials"
- Dr. S. Almosni, "High performance perovskite solar cells"
- Pr. T. Toupan, "Ionic liquid polymer as an alternative to LITFSI salt for over 20% efficiency and hysteresis-free perovskite solar cells"
- Dr. S. Chambon, "Metal-oxides in inverted organic solar cells: a cause of instability"
- Dr. A. Sharma, "Perovskite Solar Cells- Unravelling the Electronic Properties of Interfaces"

Session on systems:

- Pr. H. Akiyama, "Photoemission spectroscopy of photo-voltaic dynamics in solar cells"
- Pr. M. Sugiyama, "Band engineering for high-efficiency photocatalysts"
- Pr. C. Alonso
- D. Aureau, "Multi-technique characterization of modified surfaces of III-V based Quantum dots and GaN photoelectrodes"
- Dr. C. Olivier, "Original NiO-based photoelectrodes for Dye-Sensitized Solar Cells and Photo-Electrochemical Cells"



Poster session presentations:

(1) Organic/Perovskites/Colloidal QDs:

Dr. Hai-bin WANG, "Solution-processed short-wave infrared PbS colloidal quantum dot / ZnO nanowire solar cells"

Ms. Saemi TAKAHASHI (student, Segawa lab), "Crystal and interface architecture of perovskite solar cells"

Ms. Kanna FUKUMOTO (student, Segawa lab), "Photophysical properties of excitons in perovskite nanocrystals"

M. Xu HAO, "Luminescence characterization of multijunction solar cells"

Ms. Camille GEFFROY (student, Segawa, Toupance and Hadziioannou labs), " Functionalized Poly(9-vinylcarbazole) as an Alternative Hole Transporting Material to Spiro-OMeTAD for Improved Perovskite Solar Cella Stability"

Dr. Céline OLIVIER, "Functional organometallic complexes for solar cell and photo-electrochemical cell applications"

Ms. Marina Richet (student, Vignau and Cloutet labs) "Inverted organic solar cells with one step solution-process of interfacial and photoactive layers"

Ms. Florence Archet (student, Chambon lab) "Borondifluoride Complexes of Curcuminoid Derivatives for Organic Solar Cells"

Dr Elodie Destouesse "Flexible barrier foil with embedded ZnO Core Spike Particles for slot-die coated organic solar cells"

(2) III-Vs/Advanced concepts

Prof. Nazmul AHSAN, "Restructuring impurity-doped CuGaS₂ materials toward IBSC solar cell application"

Prof. Yoshitaka OKADA, "Control of optical transition and carrier extraction in GaSb quantum nanostructure solar cells"

Dr. Ryo TAMAKI, "Quantitative optical spectroscopy for diagnosis and optimization of quantum dot solar cells"

Dr. D. Suchet, "Role of Ratchet States in Nanostructure Intermediate Band Solar Cells"

(3) Miscellaneous

M. Geoffrey PRUNET (student, Hadziioannou lab), "Improvement of Thermoelectric properties of PEDOT:Tos based devices"

