1. Annexes

1.1. Partenaires académiques

1.1.1. Laboratoire IMS

1.1.1.1.Résumé

Nom du laboratoire	Laboratoire de l'Intégration du Matériau au Système (IMS) UMR 5218
Adresse complète	ENSCBP, 16 Avenue Pey Berland, 33607 Pessac CEDEX
Directeur du laboratoire	Claude PELLET
Section CNRS	8
Contact scientifique	Lionel HIRSCH - lionel.hirsch@ims-bordeaux.fr
Objectifs	Intégration de semiconducteurs organiques dans les dispositifs électroniques
Site web	http://www.ims-bordeaux.fr et www.enscbp.fr/ims-elorga

1.1.1.2.Domaines de compétences

- Diodes électroluminescentes
- Cellules solaires organiques et hybrides
- Transistors
- Capteurs
- Etudes des propriétés de transport
- Etude de nouveaux semiconducteurs : polymères et petites molécules

1.1.1.3.Personnels permanents impliqués

- Cédric AYELA, CR CNRS, cedric.ayela@ims-bordeaux.fr
- Sylvain CHAMBON, CR CNRS, sylvain.chambon@ims-bordeaux.fr
- Lionel HIRSCH, DR CNRS, lionel.hirsch@ims-bordeaux.fr
- Pascal TARDY, MCF, pascal.tardy@ims-bordeaux.fr
- Laurence VIGNAU, PR, laurence.vignau@ims-bordeaux.fr
- Guillaume WANTZ, MCF-HDR, guillaume.wantz@ims-bordeaux.fr

1.1.1.4.Publications significatives (10 max)

1 "On the Understandings of Light Activation Processes in Titanium Oxide based Inverted Organic Solar Cells" S. Chambon, E. Destouesse, B. Pavageau, L. Hirsch and G. Wantz ***Journal of Applied Physics* 112 (2012) 094503**

2 "Relation between charge carrier density and lifetime in polymer-fullerene solar cells" A. Kumar Thakur , H. Baboz , G. Wantz , J. Hodgkiss and L. Hirsch ***Journal of Applied Physics* 112 (2012) 044502**

3 "Towards frozen organic PN junctions at room temperature using high-Tg polymeric electrolytes" G. Wantz, B. Gautier, F. Dumur, T. N. T Phan, D. Gigmes, L. Hirsch, J. Gao ***Organic Electronics* 13 (10) (2012) 1859-1864**

4 "*Optimization of the performances of SU-8 organic microcantilever resonators by tuning the viscoelastic properties of the polymer*" Georges Dubourg, Isabelle Dufour, Claude Pellet, Cedric Ayela,

***Sensors and Actuators B: Chemical* 169 (2012) 320-326**

5 "Cumulative effects of electrode and dielectric surface modifications on pentacene-based transistors" M. Devynck, P. Tardy, G. Wantz, Y. Nicolas, L. Vellutini, C. Labrugère, L. Hirsch
***Applied Physics Letters* 100 (2012) 053308**

6 "Synthesis and Properties of a Blue Bipolar Indenofluorene Emitter Based on a D-pi-A Design"
D. Thirion, J. Rault-Berthelot, L. Vignau, C. Poriel
***Org. Lett.* 13 (16) (2011) 4418-4421**

7 "P3HT:PCBM: best seller of polymer photovoltaic research"
M.T. Dang, L. Hirsch, G. Wantz
Advanced Materials 23 (31) (2011) 3567-3602

8 "Temperature dependence of open-circuit voltage and recombination processes in polymer-fullerene based solar cells"
A.K. Thakur, G. Wantz, G. Garcia-Belmonte, J. Bisquert, L. Hirsch
***Solar Energy Materials and Solar Cells* 95 (2011) 2131–2135**

9 "Conjugated rod-coil block copolymers and optoelectronic applications"
A. de Cuendias, R.C. Hiorns, E. Cloutet, L. Vignau and H. Cramail
***Polym. Int.* 59 (11) (2010) 1452–1476. REVIEW**

10 "Symetric photovoltaic polymer solar cells"
S. Alem, J. Gao, G. Wantz,
***Journal of Applied Physics* 106 (2009) 044505**

1.1.2. Laboratoire ISM (Institut des Sciences Moléculaires UMR5255)

1.1.2.1.Résumé

Nom du laboratoire	Institut des Sciences Moléculaires
Adresse complète	Université Bordeaux 1, 351 cours de la libération, F-33405 Talence Cédex
Directeur du laboratoire	Dr. Philippe Garrigues
Section CNRS	12, 13 et 14
Contact scientifique	Prof. Thierry TOUPANCE
Objectifs	Modélisation et élaboration de nouveaux matériaux organiques et hybrides organique-inorganique pour l'électronique organique.
Site web	www.ism.u-bordeaux1.fr

1.1.2.2.Domaines de compétences

- Modélisation moléculaire
- Matériaux organiques nanostructurés
- Matériaux hybrides organique-inorganique
- Capteurs
- Cellules solaires organiques et hybrides

1.1.2.3.Personnels permanents impliqués

- Thierry TOUPANCE, PR Bx1, t.toupance@ism.u-bordeaux1.fr
- Yohann NICOLAS, MC ENSCPB, y.nicolas@ism.u-bordeaux1.fr
- Céline OLIVIER, CR CNRS, c.olivier@ism.u-bordeaux1.fr
- Dario BASSANI, DR CNRS, d.bassani@ism.u-bordeaux1.fr

- Laurent DUCASSE, DR CNRS, l.ducasse@ism.u-bordeaux1.fr
- Frédéric CASTET, MC Bx1, f.castet@ism.u-bordeaux1.fr
- Raphaël MEREAU, IR CNRS, r.mereau@ism.u-bordeaux1.fr

1.1.2.4. Publications significatives (10 max)

1 TIPS-triphenodioxazine versus TIPS-pentacene: Enhanced Electron Mobility for n-Type Organic Field-Effect Transistors,
Y. Nicolas, F. Castet, M. Devynck, P. Tardy, L. Hirsch, C. Labrugère, H. Allouchi, T. Toupance,
Org. Electronics, **2012**, *13*, 1392-1400.

2 Nanoscaled Tin Dioxide Films Processed from Organotin-based Hybrid Materials: An Organometallic Route toward Oxide Gas Sensors,
L. Renard, O. Babot, H. Saadaoui, H. Fuess, J. Brötz, A. Gurlo, E. Arveux, A. Klein, T. Toupance,
Nanoscale, **2012**, *4*, 6806-6813.

3 Fine-tuning of triarylamine-based photosensitizers for dye-sensitized solar cells,
C. Olivier, F. Sauvage, L. Ducasse, F. Castet, M. Grätzel, T. Toupance,
Chem. Sus. Chem., **2011**, *3*, 5001-5003.

4 Low-Temperature UV-Processing of Nanoporous SnO_2 Layers for Dye Solar Cells,
Z. Tebby, T. Uddin, Y. Nicolas, C. Olivier, T. Toupance, C. Labrugère, L. Hirsch,
ACS Appl. Mater. & Interfaces, **2011**, *3*, 1485-1491.

5 Tuning the Interfacial Electronic Structure at Organic Heterojunctions by Chemical Design,
S. Mothy, M. Guillaume, J. Idé, F. Castet, L. Ducasse, J. Cornil, D. Beljonne,
J. Phys. Chem. Letters, **2012**, 3, 2374-2378.

6 Electronic Processes at Organic-Organic Interfaces : Insight from Modeling and Implications for Opto-Electronic Devices
D. Beljonne, J. Cornil, L. Muccioli, C. Zannoni, J.L. Brédas, F. Castet,
Chem. Mater. **2011**, 23, 591-609.

7 Supramolecular Organization and Charge Transport Properties of Self-Assembled pi–pi Stacks of Perylene Diimide Dyes
J. Idé, R. Méreau, L. Ducasse, F. Castet, Y. Olivier, N. Martinelli, J. Cornil, D. Beljonne,
J. Phys. Chem. B. **2011**, 115, 5593-5603.

8 Functional monolayers from carbon nanostructures – fullerenes, carbon nanotubes, and graphene – as novel materials for solar energy conversion,
G. V. Dubacheva, C.-K. Liang, D. M. Bassani,
Coord. Chem. Rev. **2012**, *256*, 2628 - 2639.

9 Controlling the emission polarization from single crystals using light: Towards photopolic materials,
G. Raffy, D. Ray, C.-C. Chu, A. Del Guerzo, D. M. Bassani,
Angew. Chem. Int. Ed. **2011**, *50*, 9584 - 9588 (Hot Paper).

10 Spontaneous generation of highly emissive RGB organic nano-spheres,
K.-P. Tseng, F.-C. Fang, J.-J. Shyue, K.-T. Wong, G. Raffy, A. Del Guerzo, D. M. Bassani,
Angew. Chem. Int. Ed. **2011**, *50*, 7032-7036 (Hot Paper).