

1. Annexes

1.1. Partenaires académiques

1.1.1. Laboratoire LPICM

1.1.1.1. Résumé

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| Nom du laboratoire | Laboratoire de Physique des Interfaces et des Couches Minces (umr7647) |
| Adresse complète | Ecole polytechnique, route de Saclay, 91128 Palaiseau, cedex |
| Directeur du laboratoire | Pere ROCA i CABARROCAS |
| Section CNRS | 4 – 6 - 8 – 10 – 13 - 14 |
| Contact scientifique | Yvan Bonnassieux yvan.bonnassieux@polytechnique.edu |
| Objectifs | Conception de composants novateurs de l'électronique organique |
| Site web | http://www.lpicm.polytechnique.fr |

1.1.1.2. Domaines de compétences

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

1.1.1.3. Personnels permanents impliqués

- Denis TONDELIER IR, Polytechnique, denis.tondelier@polytechnique.edu
- Bernard GEFFROY, IR, CEA, bernard.geffroy@polytechnique.edu
- Yvan BONNASSIEUX, MCF-HDR, Polytechnique, yvan.bonnassieux@polytechnique.edu
- Gaël ZUCCHI, CR CNRS, gael.zucchi@polytechnique.edu
- Abderrahim YASSAR, DR CNRS, abderrahim.yassar@polytechnique.edu
- Gilles HOROWITZ, DR CNRS, gilles.horowitz@polytechnique.edu

1.1.1.4. Publications significatives (10 max)

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| 1 | “ Effects of acid-treated silicon nanowires on hybrid solar cells performance” Taewoo Jeon, Bernard Geffroy, Denis Tondelier, Linwei Yu, Pascale Jegou, Bruno Jusselme, Serge Palacin, Pere Roca i Cabarrocas, Yvan Bonnassieux Solar Energy Materials and Solar Cells, DOI: 10.1016/j.solmat.2012.09.015 (2012) |
| 2 | « Persistent photoexcitation effect on the poly(3-hexylthiophene) film: Impedance measurement and modeling » Kim, Chang Hyun; Kisiel, Krzysztof; Jung, Jaroslaw; Ulanski, Jacek; Tondelier, Denis; Geffroy, Bernard; Bonnassieux, Yvan; Horowitz, Gilles. Synthetic Metals Volume: 162 Issue: 5-6 Pages: 460-465 DOI: 10.1016/j.synthmet.2011.12.021,(2012) |
| 3 | « White Organic Light-Emitting Diodes Based on Quench-Resistant Fluorescent Organophosphorus Dopants » Joly, Damien; Tondelier, Denis; Deborde, Valerie; Delaunay, Wylliam; Thomas, Anup; Bhanuprakash, Kotamarthi; Geffroy, Bernard; Hissler, Muriel; Reau, Regis. Advanced Functional Materials Volume: 22 Issue: 3 Pages: 567-576 DOI: 10.1002/adfm.201102005 (2012) |
| 4 | « Amphiphilic conjugated block copolymers for efficient bulk heterojunction solar cells » Suspene, Clement; Miozzo, Luciano; Choi, Jin Woo; Gironda, Ramona; Tondelier, Denis; Bonnassieux, Yvan. |

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| | Horowitz, Gilles; Yassar, Abderrhaim. Journal of Materials Chemistry Volume: 22 Issue: 10 Pages: 4511-4518 DOI: 10.1039/c2jm14960e (2012) |
| 5 | «2,2 '-Biphospholes: Building Blocks for Tuning the HOMO-LUMO Gap of pi-Systems Using Covalent Bonding and Metal Coordination » Chen, Hui; Delaunay, Wylliam; Yu, Liujuan; Joly, Damien; Wang, Zuoyong; Li, Jin; Wang, Zisu; Lescop, Christophe; Tondelier, Denis; Geffroy, Denis; Duan, Zheng; Hissler, Muriel; Mathey, Francois; Reau, Regis. Angewandte Chemie International Edition Volume: 51 Issue: 1 Pages: 214-217 DOI: 10.1002/anie.201105924 (2012) |
| 6 | « Solution, Solid State, and Film Properties of a Structurally Characterized Highly Luminescent Molecular Europium Plastic Material Excitable with Visible Light » Author(s): Zucchi, Gael; Murugesan, Vajjiravel; Tondelier, Denis; Aldakov, Dmitry; Jeon, Taewoo, Yang, Feng; Thuery, Pierre; Ephritikhine, Michel; Geffroy, Bernard. Inorganic Chemistry Volume: 50 Issue: 11 Pages: 4851-4856 DOI: 10.1021/ic2000415 (2011) |
| 7 | « Capacitive behavior of pentacene-based diodes: Quasistatic dielectric constant and dielectric strength » Kim, Chang Hyun; Yaghmazadeh, Omid; Tondelier, Denis; Bin Jeong, Yong; Bonnassieux, Yvan; Horowitz, Gilles. Journal of Applied Physics Volume: 109 Issue: 8 Article Number: 083710 DOI: 10.1063/1.3574661 (2011) |
| 8 | « Ethanol-Mediated Metal Transfer Printing on Organic Films » Aldakov, Dmitry; Tondelier, Denis; Palacin, Serge; Bonnassieux, Yvan. ACS Applied Materials & Interfaces Volume: 3 Issue: 3 Pages: 740-745 DOI: 10.1021/am101085k (2011) |
| 9 | « Fundamental Benefits of the Staggered Geometry for Organic Field-Effect Transistors » Kim C. H., Bonnassieux Y., Horowitz G. IEEE Electron Device Letters 32, 9 DOI : 10.1109/LED.2011.2160249 (2011) |
| 10 | « Modeling the low-voltage regime of organic diodes: Origin of the ideality factor » Kim C. H., Yaghmazadeh O., Bonnassieux Y., Horowitz G. Journal of Applied Physics 110 (2011) 093722 DOI : 10.1063/1.3660221 |