

1. Annexes

1.1. Partenaires académiques

1.1.1. Laboratoire LCPO

1.1.1.1. Résumé

Nom du laboratoire	Laboratoire de Chimie des Polymères Organiques (LCPO) UMR 5629
Adresse complète	B8 avenue des Facultés, 33405 Talence cedex
Directeur du laboratoire	Pr Henri CRAMAIL
Section CNRS	11
Contact scientifique	Georges HADZIIOANNOU – hadzii@enscbp.fr
Objectifs	Synthèse, formulation et intégration de matériaux polymères et copolymères organiques pour l'électronique organique et le photovoltaïque
Site web	www.lcpo.fr

1.1.1.2. Domaines de compétences

- Chimie des polymères
- Synthèse de polymères semi-conducteurs
- Physico-chimie des polymères et copolymères
- Formulation
- Caractérisations structurales
- Caractérisations optiques et électriques

1.1.1.3. Personnels permanents impliqués

- Cyril BROCHON, MCF Université de Bordeaux, cbrochon@enscbp.fr
- Eric CLOUTET, DR CNRS, cloutet@enscbp.fr
- Guillaume FLEURY, MCF Université de Bordeaux, gfleury@enscbp.fr
- Georges HADZIIOANNOU, PR Université de Bordeaux, hadzii@enscbp.fr
- Gilles PECASTAINGS, IE Université de Bordeaux, gilles.pecastaings@u-bordeaux1.fr

1.1.1.4. Publications significatives (10 max)

1. *Synthesis of hybrid semi-conducting polymer-metal latexes*
M. MUMTAZ, E. CLOUTET, C. LABRUGÈRE, G. HADZIIOANNOU, H. CRAMAIL,
Polymer Chemistry **4**, 615 (2013).
2. *Block copolymer as a nanostructuring agent for high-efficiency and annealing-free bulk heterojunction organic solar cells*
C. RENAUD, S.-J. MOUGNIER, E. PAVLOPOULOU, C. BROCHON, G. FLEURY, D. DERIBEW, G. PORTALE, E. CLOUTET, S. CHAMBON, L. VIGNAU, G. HADZIIOANNOU
Advanced Materials **24(16)**, 2196-2201 (2012)
3. *Facile and versatile synthesis of rod-coil poly(3-hexylthiophene)-based block copolymers by nitroxide mediated radical polymerization*
S.-J. MOUGNIER, C. BROCHON, E. CLOUTET, S. MAGNET, C. NAVARRO, G. HADZIIOANNOU
Journal of Polymer Science Part A: Polymer Chemistry **50(12)**, 2463-2470 (2012)

4. *Design of well-defined monofunctionalized Poly(3-hexylthiophene)s: toward the synthesis of semiconducting graft copolymers*
S.-J. MOUGNIER, C. BROCHON, E. CLOUTET, G. FLEURY, H. CRAMAIL, G. HADZIIOANNOU
Macromolecular Rapid Communications **33(8)**, 703-709 (2012)
5. *Optimization of the Bulk Heterojunction Composition for Enhanced Photovoltaic Properties: Correlation between the Molecular Weight of the Semi-Conducting Polymer and Device Performance*
C. NICOLET, D. H. DERIBEW, C. RENAUD, G. FLEURY, C. BROCHON, E. CLOUTET, L. VIGNAU, G. WANTZ, H. CRAMAIL, M. GOEGHEGAN, G. HADZIIOANNOU
Journal of Physical Chemistry B **115(44)**, 12717-12727 (2011)
6. *Hexagonal-to-cubic phase transformation in composite thin films induced by FePt nanoparticles located at PS/PEO interfaces*
K. AISSOU, G. FLEURY, G. PECASTAINGS, T. ALNASSER, S. MORNET, G. GOGGIO, G. HADZIIOANNOU
Langmuir **23(6)**, 14481-14488 (2011)
7. *Synthesis and Thin Film Phase Behaviour of Functional Rod-Coil Block Copolymers Based on Poly(para-phenylenevinylene) and Poly(lactic acid)*
C. H. BRAUN, B. SCHOEPF, C. NGOV, C. BROCHON, G. HADZIIOANNOU, E. J. W. CROSSLAND, S. LUDWIGS
Macromolecular Rapid Communications **32(11)**, 813-819 (2011)
8. *A new supramolecular route for using rod-coil block copolymers in photovoltaic applications*
N. SARY, F. RICHARD, C. BROCHON, N. LECLERC, P. LEVEQUE, J.-N. AUDINOT, S. BERSON, T. HEISER, G. HADZIIOANNOU, R. MEZZENGA
Advanced Materials **22 (6)**, 763-768 (2010)
9. *Synthesis of donor-acceptor multiblock copolymers incorporating fullerene backbone repeat units*
R. C. HIORNS, E. CLOUTET, E. IBARBOURE, A. KHOUKH, H. BEJBOUJI, L. VIGNAU, H. CRAMAIL
Macromolecules **43(14)**, 6033-6044 (2010)
10. *Hyperbranched polymers for photolithographic applications - Towards understanding the relationship between chemical structure of polymer resin and lithographic performances*
C. L. CHOCHOS, E. ISMAILOVA, C. BROCHON, N. LECLERC, R. TIRON, C. SOURD, P. BANDELIER, J. FOUCHER, H. RIDAOUI, A. DIRANI, O. SOPPERA, D. PERRET, C. BRAULT, C. SERRA, G. HADZIIOANNOU
Advanced Materials **21(10-11)**, 1121-1125 (2009)