

Laure Biniek (35 years old)
CNRS Researcher (CRCN Section 11)
Institut Charles Sadron, CNRS
University of Strasbourg, France
laure.biniek@ics-cnrs.unistra.fr
0033 (0)388.41.41.78



Professional Experiences

- **CNRS Researcher** within SYCOMMOR team led by Dr. M. Brinkmann at Institut Charles Sadron, Strasbourg (since 01/10/2014).
- **Postdoc at Institut Charles Sadron**, Strasbourg (09/2012-09/2014), supervisor: Dr. M. Brinkmann. « Structural characterizations and orientation control of semi-conducting block co-oligomers for organic electronic applications ».
- **Postdoc at Imperial College London**, Chemistry Department, United Kingdom (03/2011-08/2012), supervisor: Pr. I. McCulloch. « Synthesis of semi-conducting polymers for stable and high performing organic solar cells devices ».
- **PhD fellow at ICPEES and ICube, University of Strasbourg** (10/2007-12/2010), MRT grant, PhD advisors: Pr. T. Heiser, Pr. G. Hadziioannou. « Low band gap semi-conducting polymers: from synthesis towards organic solar cell devices ».

Complementarity and interdisciplinarity of expertise fields in organic electronic

- **Design and syntheses** of semi-conducting polymers.
- **Structure, morphology control and alignment of (semi)-conducting polymers in thin films.**
- Ambient and in-situ temperature controlled **structural characterizations** (polarized absorption and fluorescence spectroscopies, TEM and Electron diffraction, GIXD)
- **Optoelectronic properties** and organic electronic devices elaboration and characterization (organic photovoltaic, field effect transistors and thermoelectric).

Publications and communications

- **Co-author of 39 articles** (1033 citations (h=18)) ; **16 oral presentations** ; **1 invited talk**
- **Articles selection:**
 - 1) « Impact of Alkyl Side Chains on the Optoelectronic Properties of a Series of Photovoltaic Low-Band Gap Copolymers. » L. Biniek, S. Fall, C.L. Chochos, D.V. Anokhin, D.A. Ivanov, N. Leclerc, P. L  v  que, T. Heiser, *Macromolecules* 2010, 43, 9779-978.
 - 2) « Design of Semiconducting Indacenodithiophene Polymers for High Performance Transistors and Solar Cells. » I. McCulloch, R. A. Asraf, L. Biniek, H. Bronstein, C. Comb, J. E. Donaghey, D. I. James, C. B. Nielsen, B. Schroeder, W. Zhang, *Accounts of Chemical Research* 2012, 45, 714-722.
 - 3) « Large Scale Alignment and Charge Transport Anisotropy of pBTTT Films Oriented by High Temperature Rubbing. » L. Biniek, N. Leclerc, T. Heiser, R. Bechara, M. Brinkmann, *Macromolecules* 2013, 46, 4014-4023.
 - 4) « A Versatile Method to Fabricate Highly In-Plane Aligned Conducting Polymer Films with Anisotropic Charge Transport and Thermoelectric Properties: The Key Role of Alkyl Side Chain Layers on the Doping Mechanism. » A. Hamidi-Sakr, L. Biniek, J.-L. Bantignies, D. Maurin, L. Herrmann, N. Leclerc, P. L  v  que, V. Vijayakumar, N. Zimmermann, and M. Brinkmann, *Adv. Funct. Mater.* 2017, 1700173.
 - 5) « Tuning crystallochromism in Diketopyrrolopyrrole-co-Thieno[3,2-b]thiophene derivatives by the architecture of their alkyl side chains. » N. Genevaz, P. Chavez, V. Untilova, A. Boeglin, C. Bailly, L. Karmazin, L. Biniek, *J. Mater. Chem. C*, 2018, 6, 9140-9151.