

Curriculum vitae of Nicolas Leclerc

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Summary of career

2005-pres: CNRS researcher in Strasbourg, France

2003-2005: Post-doctoral position in the group of Prof. **M. Leclerc**, Québec, Canada (Synthèse et caractérisation d'oligomères et de polymères π -conjugués pour applications en OFET, en OLED et en OPV).

Summary of education

17 Juin 2016 : Habilitation à Diriger des Recherches, Université de Strasbourg (Dissertation autour de la relation structure/propriétés dans les matériaux semi-conducteurs organiques).

2000-2003: *Ph.D. in Polymer Chemistry* supervised by Prof. **A.J. Attias**, UPMC Paris 6, France (Synthèse modulaire de chromophores conjugués pour l'optoélectronique. Etude de leur incorporation dans des polymères et de l'influence de l'architecture sur les propriétés photophysiques).

1998-2000: *Master Degree in Polymer Chemistry* UPMC Paris 6, France.

Publications summary

72 publications, >1800 citations, h-index = 23, 1 patent, 1 book chapter.

Research area summary

π -conjugated molecular materials and polymers chemistry. Characterization of optoelectronic properties. Activities include studies of photovoltaic properties of synthesized materials.

Teaching summary

Organic semi-conducting materials and polymer chemistry since 2009.

Selection of publications

- 1) *6-(Arylvinylene)-3-Bromopyridine Derivatives as Lego Building Blocks for Liquid Crystal, Nonlinear Optical and Blue Light Emitting Chromophores*, N. Leclerc, S. Sanaur, L. Galmiche, F. Mathevêt, A.-J. Attias, J.-L. Fave, J. Roussel, P. Hapiot, N. Lemaître; B. Geffroy, *Chemistry of Materials*, **2005**, 17(3), 502.
 - 2) *Synthesis of New 2,7-Carbazolenevinylene-Based Copolymers and Characterization of their Photovoltaic Properties*, N. Leclerc, A. Michaud, K. Sirois, J.F. Morin, M. Leclerc, *Advanced Functional Materials*, **2006**, 16 (13), 1694-1704.
 - 3) *A New Supramolecular Route for Use of Rod-Coil Block Copolymers in Photovoltaic Applications*, N. Sary, F. Richard, C. Brochon, N. Leclerc, P. Lévêque, J.-N. Audinot, S. Berson, T. Heiser, G. Hadziioannou and R. Mezzenga, *Advanced Materials*, **2010**, 22, 763-768.
 - 4) *Impact of the 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. Lévêque and T. Heiser, *Macromolecules*, **2010**, 43(23), 9779-9786.
 - 5) *High Performance Solution-processed Solar Cells and Ambipolar behavior in OFETs with Thienyl-BODIPY Scaffolds*, T. Bura, N. Leclerc, S. Fall, P. Lévêque, T. Heiser, P. Retailleau, S. Rihn, A. Mirloup and R. Ziessel, *Journal of the American Chemical Society*, **2012**, 134, 17404-17407.
 - 6) *Triazatruxene-diketopyrrolopyrrole Dumbbell-shaped molecules as Photoactive Electron Donor for High-Efficiency Solution Processed Organic Solar Cells*, T. Bura, N. Leclerc, R. Bechara, P. Lévêque, T. Heiser and R. Ziessel, *Advanced Energy Materials*, **2013**, 3, 1118-1124.
 - 7) *Peryleneimide-based donor-acceptor co-oligomers: impact of molecular architecture on self-assembling properties*, P.O. Schwartz, L. Biniek, E. Zaborova, B. Heinrich, M. Brinkmann, N. Leclerc and S. Méry, *Journal of the American Chemical Society*, **2014**, 136, 5981-5992.
 - 8) *Rational Engineering of BODIPY-bridged-Trisindole derivatives for Solar Cell Applications*, I. Bulut, Q. Huault, A. Mirloup, P. Chávez, S. Fall, A. Hébraud, S. Méry, B. Heinrich, T. Heiser, P. Lévêque and N. Leclerc, *ChemSusChem*, **2017**, 10, 1878-1882.
 - 9) *Face-on orientation of fluorinated polymers conveyed by long alkyl chains: a prerequisite for high photovoltaic efficiencies*, O. A. Ibraikulov, B. Heinrich, P. Chávez, I. Bulut, C. Ngov, O. Boyron, N. Brouckaert, S. Swaraj, K. L. Gerasimov, D. A. Ivanov, S. Méry, N. Leclerc, P. Lévêque and T. Heiser, *Journal of Materials Chemistry A*, **2018**, 6, 12038-12045.
 - 10) *Bringing conducting polymers to high order: towards conductivities beyond 10^5 S/cm and thermoelectric power factors of $2 \text{ mW}\cdot\text{m}^{-1}\cdot\text{K}^{-2}$* , V. Vijayakumar, Y. Zhong, V. Untilova, M. Bahri, L. Herrmann, L. Biniek, N. Leclerc, and M. Brinkmann, *Advanced Energy Materials*, **2019**, ASAP.
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