

Prof. Daniel TATON - 52 years old

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Institution: **University of Bordeaux**

Research at **Laboratoire de Chimie des Polymères Organiques (LCPO)**: <http://www.lcpo.fr>



Titles and Degrees

- 1991** Master degree in « Chemistry & Physico-chemistry of Polymers » from the University Pierre & Marie Curie (Paris VI)
- 1991-1994** PhD degree in « chemistry & physico- chemistry of polymers », Univ. P. & M. Curie (Paris VI), « Laboratoire de Chimie Macromoléculaire » - Supervisor: Dr. Nicolas Spassky
- 1995-2008** Lecturer – University of Bordeaux 1
- 2004** « Habilitation to Conduct Researches » (HDR in French) - University of Bordeaux 1
- Since 2008** Full Professor - University of Bordeaux 1 (now University of Bordeaux)

Professional Experience

- 1995** Postdoctoral fellowship at the LCPO - University of Bordeaux (Dr. Yves Gnanou's team) – in collaboration with Rhône-Poulenc
- 2000-2003** Partly seconded (1 week/month) at the R&D center of Rhodia (French chemical company) (Aubervilliers, France) in « Synthesis & Formulation of Specialty Polymers ».

Research topics

- **Macromolecular engineering**: development of synthetic methodologies of polymers with a “complex” architecture: star-like and dendrimer-like polymers, nanogels, specific block copolymers (based on polypeptidic, glucidic, or ionic liquid blocks,...).
- **Multi-task organocatalytic platform mostly – but not exclusively- based on N-heterocyclic carbenes** for diverse polymerization reactions: metal-free polymer synthesis both *via* chain-growth and step-growth polymerization pathways; design of polymer-supported organic pre-catalysts from “task-specific” polymers, e.g. poly(ionic liquid)s for organic and organometallic catalysis.

Teaching, Reviewing & Supervision

- Teaching activities in Polymer Science at different levels (Bachelor and Master), mainly at the Univ. of Bordeaux, and at the Graduate School of Chemistry, Physics & Biology (ENSCBP): Polymer Synthesis – Chemical Modification and Degradation of Polymers - Formulation of Polymers – Macromolecular Engineering -
- Supervised **27** PhD theses, **16** post doctorates.
- Reviewer or chairman of > **80** thesis committees in France or abroad (Spain, Portugal, Belgium, Germany, Tunisia).
- Reviewer of > **400** research papers over the past 15 years.
- Reviewer for national proposals: ANR, « Initiative or Laboratory of Excellence » (Paris, Caen, Toulouse), ANRT Program, Regional programs
- Reviewer for international proposals: ACS Petroleum (USA), CEFIPRA (India), Netherlands Organization for Scientific Research – NWO (Pays-Bas), FRIA and CRA programs (Belgium).

Scientific records - Award

- **1994-2019**: Co-author of **130** publications in peer-review journals, **25** review articles or book chapters, **13** patents, and **67** conferences in (inter)national conferences or seminars.
- **h factor = 48** - roughly 6,500 citations (source: Web of Science – July 2020) – Average citation / item = 36.
- Award of the French Chemical (SCF) Society & French Polymer Group (GFP) in **2006**.
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Administrative & collective responsibilities – Evaluation committees

- Since 2018** Deputy Director of the LCPO (Director: Prof. S. Lecommandoux)
- 2007-2009** Head of the research group entitled « *Sustainable Polymer Chemistry* » at the LCPO, involving 15 permanent staff.
- Since 2009** Head of a research group at LCPO « *Polymerization Catalyses & Engineering* », involving 10 staff members: <https://www.lcpo.fr/team-1-polymerization-catalyses-engineering/>
- 2011-2015** Elected Member of the National Committee of Universities (CNU) – Section 33: Chemistry of Materials.
- 2016-2021** Elected Member of CoNRS – Section 11: « Systèmes et Matériaux Supra- et Macromoléculaires: Élaboration, Propriétés, Fonctions »
- 2012-2015** Editorial advisory board of *Macromolecules* (American Chemical Society).
- Since 2018** Editorial advisory board of *European Polymer Journal* (Elsevier).
- 2012,13 &15** Evaluation committee of proposals from the National Agency for Research (ANR).
- Since 2011** Evaluation committees (4, including 2 as chairman) of research units for AERES and HCERES (French agency of evaluation of research labs).
- Since 2012** Selection committees (5, including 1 as chairman) of assistant professorship and professorship positions (Pau, Montpellier, Bordeaux, Paris).

Organization of Workhops, Summer Schools & Conferences

- 2011** Organization committee and « discussion leader » of « Aquitaine Conferences on Polymers (ACP 2011).
- 2014** Co-organizer of the summer school « SCREEN SCHOOL »; <http://screen2014.u-bordeaux.fr/> (70 attendees) – Anglet, October 21-15.
- 2015** Co-chairman of the « Ionic Polymerization 2015 (IP'15) » international conference (250 attendees); <http://ip15.sciencesconf.org/> – Bordeaux, July 5-10.
- 2015** Organization committee of the « First French-Spanish joint congress for young researchers in polymers - Journées d'Etudes des Polymères Organiques (JIP-JEPO) » <http://www.ehu.es/es/web/JIP-JEPO2015/home> – San Sebastian, September 14-18.
- 2017** Chair of the SUSPOL 10-12 July <http://www.suspol.eu/suspol-summer-school> (90 attendees) – Bordeaux, July 28-31.
- 2018** Co-chair of the 1st « Bordeaux Polymer Conferences (BPC 2018) » <http://bpc2018.u-bordeaux.fr/en> (500 attendees) – Bordeaux, July 10-12.

5 representative publications

- 1-** *Harnessing the potential of N-Heterocyclic carbenes for the rejuvenation of group transfer polymerization of (meth)Acrylics.* J. Raynaud, A. Ciolino, A. Baceiredo, M. Destarac, F. Bonnette, T. Kato, Y. Gnanou D. Taton *Angew. Chem. Int. Ed.* **2008**, *47*, 5390.
- 2-** N-Heterocyclic carbene-induced zwitterionic ring opening polymerization of ethylene oxide and direct synthesis of α,ω -difunctionalized poly(ethylene oxide)s and poly(ethylene oxide)-b-poly(ϵ -caprolactone) block copolymers. J. Raynaud, C. Absalon, Y. Gnanou, D. Taton *J. Am. Chem. Soc.* **2009**, *131*, 3201.
- 3-** *Imidazol(in)ium hydrogen carbonates as a genuine source of N-heterocyclic carbenes (NHCs): applications to the facile preparation of NHC metal complexes and to NHC-organocatalyzed molecular and macromolecular syntheses.* M. Fèvre, J. Pinaud, A. Leteneur, Y. Gnanou, J. Vignolle, D. Taton, K. Miqueu, J.-M. Sotiropoulos *J. Am. Chem. Soc.* **2012**, *134*, 6776.
- 4-** *N-heterocyclic carbenes (NHCs) as organocatalysts and structural components in metal-free polymer synthesis.* M. Fèvre, J. Pinaud, Y. Gnanou, J. Vignolle, D. Taton *Chem. Soc. Rev.* **2013**, *42*, 2142.
- 5-** *From the N-heterocyclic carbene-catalyzed conjugate addition of alcohols to the controlled polymerization of (meth)acrylates.* W. Nzahou Ottou, D. Bourichon, J. Vignolle, A.-L. Wirotius, F. Robert, Y. Landais, J.-M. Sotiropoulos, K. Miqueu, D. Taton *Chem. Eur. J.* **2015**, *21*, 9447.