

## Christophe Boisson

Laboratory of Chemistry, Catalysis, Polymers and Processes



### Research Director (CNRS)

Group leader of the team Chemistry and Polymerization Processes

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### Education

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- 2006 "Habilitation à diriger des Recherches", University Claude Bernard - Lyon1.
- 1993-1996 Ph.D. in Organic Chemistry from the University of Paris-Sud 11 (Orsay).
- 1992 Master in Molecular Chemistry from the University Montpellier II. First class Honours.
- 1992 Chemical engineer from "Ecole Nationale Supérieure de Chimie de Montpellier".

### Professional Experience

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- 2013 **Group leader** of the team Chemistry and Polymerization Processes at the C2P2 - UMR 5265
- 2008 Research Director (**DR2**), CNRS  
Assigned to the Laboratory for Chemistry, Catalysis, Polymer and Processes (C2P2, UMR 5265).
- 2000 Researcher (**CR1**), CNRS
- 1996 Researcher (**CR2**), CNRS  
Assigned to the Laboratory for Chemistry and Polymerization Processes (LCPP, UMR 140).

### Scientific Production and Supervisory work

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Publications (peer review) : 74  
Published patents : 18  
Seminar and invited lectures : 19  
MSc : 19  
PhD (co-) supervised : 22 (3 in progress)  
Post-doctoral researcher supervised : 12 (2 in progress)

### Collaboration in Research

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Arkema,  
Dutch Polymer Institute (Polyolefin cluster),  
Ineos,  
Michelin,  
Rhodia/Solvay,  
Total Marketing & Services,  
Total Petrochemicals Feluy

## Research interests

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My research work focuses on catalytic polymerizations of olefins and conjugated dienes (a throughout description of C2P2 research activities can be found at <http://c2p2-cpe.com/index.php>). Main achievements concern:

- The design of supported activators for the preparation of supported metallocene catalysts for olefin polymerization.
- Development of neodymium catalysts for the copolymerization of olefins with butadiene and discovery of new elastomers named EBR (Ethylene Butadiene Rubbers).
- Design of end functionalized polyethylenes and their use as building blocks and additives in material science.

## Selected publications

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« Alternating Copolymerization of Ethylene with Butadiene using a Neodymium Metallocene Catalyst »

J. Thuilliez, V. Monteil, R. Spitz, C. Boisson, *Angew. Chem. Int. Ed.* **2005**, *44*, 2593.

« Polyethylene Building Blocks by Catalyzed Chain Growth and Efficient End Functionalization Strategies, Including Click Chemistry »

R. Briquel, J. Mazzolini, T. Le Bris, O. Boyron, F. Boisson, F. Delolme, F. D'Agosto, C. Boisson, R. Spitz *Angew. Chem. Int. Ed.* **2008**, *47*, 9311.

« Ansa-Bis(fluorenyl) neodymium catalysts for cyclocopolymerization of ethylene with butadiene »

J. Thuilliez, L. Ricard, F. Nief, F. Boisson, C. Boisson *Macromolecules* **2009**, *42*, 3774.

« Catalyzed Chain Growth (CCG) on a main group metal: an efficient tool to functionalize polyethylene »

J. Mazzolini, E. Espinosa, F. D'Agosto, C. Boisson *Polym. Chem.* **2010**, *1*, 793-800.

« Polyethylene End Functionalization Using Radical-Mediated Thiol Ene Chemistry: Use of Polyethylenes Containing Alkene End Functionality »

J. Mazzolini, O. Boyron, V. Monteil, D. Gigmes, D. Bertin, F. D'Agosto, C. Boisson *Macromolecules* **2011**, *49*, 3381-3387.

« Single site catalysts » in Encyclopedia of polymer Science and Technology – Wiley 4<sup>th</sup> edition. B. Heurtefeu, H. Cramail, F. Vaultier, C. Boisson, R. Leino, **2012**, 52 pages.

« Completely Miscible Polyethylene Nanocomposites »

M. Bieligmeyer, S. Mehdizadeh Taheri, I. German, C. Boisson, C. Probst, W. Milius, V. Altstädt, J. Breu, H.-W. Schmidt, F. D'Agosto, S. Förster *J. Am. Chem. Soc.* **2012**, *134*, 18157-18160.

« Telechelic polyethylene from catalyzed chain growth polymerization »

I. German, W. Khelifi, S. Norsic, C. Boisson, F. D'Agosto *Angew. Chem. Int. Engl. Ed.* **2013**, *52*, 3438-3441.