

# Vincent MONTEIL

## Chargé de Recherche CNRS

Laboratoire de Chimie et Procédés de Polymérisation  
LCPP - UMR 140 (CNRS-CPE Lyon)  
BP 2077  
Bât. F308 - 43, Bd du 11 Nov.1918  
69616 Villeurbanne CEDEX  
Tel: 04 72 43 - 1781 (and -1767)  
Fax: 04 72 43 - 1768  
E-mail : [monteil@lcpp.cpe.fr](mailto:monteil@lcpp.cpe.fr)



Date of birth : November 20<sup>th</sup> 1975  
Nationality : French

### EDUCATION

- 1999-2002** **Ph.D. Thesis** of the Claude Bernard University of Lyon, summa cum laude
- 1998-1999** **D.E.A. (equivalent to MRes) in Catalysis and Physical Chemistry of Interfaces** of the Claude Bernard University of Lyon, summa cum laude
- 1995-1999** **French “Ingénieur” Diploma in Chemistry and Chemical Engineering**  
Ecole Supérieure de Chimie, Physique et Electronique de Lyon (CPE Lyon - School of Chemistry, Physics and Electronics) - Lyon - France
- 1993-1995** “Classes Préparatoires aux Grandes Ecoles” - Grenoble – France
- June 1993** “Baccalauréat” option Sciences, passed with distinctions

LANGUAGES SKILLS : - **French** : Mother tongue  
- **English** : Fluent  
- **German** : Fluent

### WORK EXPERIENCE

- From Oct. 2005** **CNRS position** (CR2, “junior researcher”)  
Laboratoire de Chimie et Procédés de Polymérisation  
LCPP - UMR 140 (CNRS-CPE Lyon)
- Development of polymerization catalysts (organometallic chemistry)**  
**Catalytic homo- and copolymerizations**  
**Synthesis of new polymers (copolymerization of olefins and polar monomers...)**

- 2003- Sept. 2005** Postdoc position (industrial sponsor : BASF AG)  
**Universität Freiburg** - Institut für Makromolekulare Chemie  
then **Universität Konstanz** - Lehrstuhl für Chemische  
Materialwissenschaft - Laboratory Prof. Dr. Stefan MECKING
- Catalytic polymerization of olefins in water*
- Development of catalysts (late transition metals) for the polymerization of olefins or diolefins in aqueous emulsion  
Synthesis of polyolefins or polydienes latices by different methods (**emulsion, mini-emulsion, micro-emulsion**).  
Silica/PE Nanocomposite synthesis.
- Teaching experience : practice course accompanying the lecture on “Polymer synthesis and material properties” (including radical, ionic and catalytic polymerizations) – University Konstanz
- 1999 - 2002** Ph.D. (industrial sponsor : Michelin)  
**Laboratory for the Chemistry and Processes of Polymerization** :  
L.C.P.P. (Laboratoire de Chimie et Procédés de Polymérisation) –  
CNRS/CPE Lyon – Villeurbanne – France.  
Laboratory Dr. R. SPITZ.
- Synthesis of olefins-butadiene copolymers with rare earth catalysts.*
- Synthesis and characterization (EA, NMR) of lanthanocene based catalysts. *Olefins-Butadiene Copolymerization*. Analysis (NMR, SEC, DSC) of copolymers with elastomeric properties.
- 1998 - 1999** Internship of D.E.A. (MRes)  
**Laboratory of Surface Organometallic Chemistry** : L.C.O.M.S.  
(Laboratoire de Chimie Organométallique de Surface) – CNRS/CPE  
Lyon – Villeurbanne – France.
- Synthesis and reactivity of new heterogeneous tantalum- or niobium based catalysts for the asymmetric epoxidation of allylic alcohols and sulfides.*
- 1997- 1998** “Engineer” Internship  
12 months **BASF AG** in Ludwigshafen (Germany)
- Synthesis of palladium based catalysts for the carbonylation of olefins and dienes.*

## PUBLICATIONS

1. "Synthesis of Very Small Polymer Particles by Catalytic Polymerization"  
S. Mecking, V. Monteil, J. Huber, L. Kolb, P. Wehrmann *Macromol. Symp.* **2006**, 236, 117.
2. "Silica/Polyethylene Nanocomposite Particles from Catalytic Emulsion Polymerization"  
V. Monteil, J. Stumbaum, R. Thomann, S. Mecking *Macromolecules* **2006**, 39, 2056.
3. "A General Route to Very Small Polymer Particles with Controlled Microstructures"  
V. Monteil, P. Wehrmann, S. Mecking *J. Am. Chem. Soc.* **2005**, 127, 14568.
4. "1,2-Polybutadiene Latices by Catalytic Polymerization in Aqueous Emulsion"  
V. Monteil, A. Bastero, S. Mecking *Macromolecules* **2005**, 38, 5393.
5. "Alternating copolymerization of ethylene with butadiene using a Neodymium Metallocene catalyst"  
Thuillez, J., Monteil, V., Spitz, R.; Boisson, C. *Angew. Chem. Ind. Ed.* **2005**, 44, 2593.
6. "Aqueous Dispersions of Extraordinarily Small Polyethylene Nanoparticles"  
L. Kolb, V. Monteil, R. Thomann, S. Mecking *Angew. Chem. Ind. Ed.* **2005**, 44, 429.
7. "Advances and limits in copolymerization of olefins with conjugated dienes"  
C. Boisson, V. Monteil, J. Thuillez, R. Spitz, C. Monnet, M.F. Llauro, F. Barbotin, P. Robert *Macromol. Symp.* **2005**, 226, 17.
8. "Polymerization of butadiene and copolymerization of butadiene and styrene using neodymium amide catalysts"  
Monteil, V.; Spitz, R.; Boisson, C. *Polym. Int.* **2004**, 53, 576.
9. "Catalytic ethylene polymerization in aqueous emulsion: catalyst tailoring and synthesis of very small latex particles"  
A. Bastero, L. Kolb, P. Wehrmann, F. M. Bauers, I. Göttker gen. Schnetmann, V. Monteil, R. Thomann, M. M. Chowdhry, S. Mecking *Polym. Mat. Sci. Eng.* **2004**, 90, 740.
10. "Evidence of intramolecular cyclization in copolymerization of ethylene with 1,3-butadiene: thermal properties of the resulting copolymers"  
Monteil, V.; Spitz, R.; Barbotin, F.; Boisson, C. *Macromol. Chem. Phys.* **2004**, 205, 737.
11. "Lanthanidocene catalysts for the homo- and copolymerization of ethylene with butadiene"  
Boisson, C.; Monteil, V.; Ribour, D.; Spitz, R.; Barbotin, F. *Macromol. Chem. Phys.* **2003**, 204, 1747.
12. "Investigation of Ethylene/Butadiene Copolymers Microstructure by  $^1\text{H}$  and  $^{13}\text{C}$  NMR"  
Llauro, M. F.; Monnet, C.; Barbotin, F.; Monteil, V.; Spitz, R.; Boisson, C. *Macromolecules* **2001**, 34, 6304.

13. “First Synthesis of Poly(ethylene-co-1,3-butadiene) with Neodymocene Catalysts”  
Barbotin, F.; Monteil, V.; Llauro, M. F.; Boisson, C.; Spitz, R. *Macromolecules* **2000**, 33, 8521.

## PATENTS

1. “Système catalytique pour l’obtention de copolymères pour l’obtention de copolymères diène(s) conjugué(s) / mono-oléfine(s) et ces copolymères”

FR 0309930 (**2003**), Société de Technologie Michelin / Michelin Recherche et Technique S.A. / ATOFINA Research : Monteil, V.; Spitz, R.; Boisson, C. *Chem. Abstr.* **2003**, 142:219710.

WO 2005028526 (**2005**), Société de Technologie Michelin / Michelin Recherche et Technique S.A. / ATOFINA Research : Monteil, V.; Spitz, R.; Boisson, C.

2. “Copolymères éthylène-butadiène, système catalytique pour les produire et production desdits polymères”

FR 0212893 (**2002**), Société de Technologie Michelin / Michelin Recherche et Technique S.A. / ATOFINA Research : Monteil, V.; Spitz, R.; Boisson, C.

WO 2004035639 (**2004**), Société de Technologie Michelin / Michelin Recherche et Technique S.A. / ATOFINA Research, Monteil, V.; Spitz, R.; Boisson, C., *Chem. Abstr.* **2004**, 140:340585.

## PRESENTATIONS

### 2001

- “New catalytic ethylene polymerization system based on lanthanocene complexes. Unique synthesis of an ethylene/butadiene copolymer by a lanthanide catalyst”

V. Monteil ; F. Barbotin ; Roger Spitz ; C. Boisson.

Poster - Leuven Summer School on Catalysis – 11-14 Novembre 2001 (Ostend – Belgique)

### 2002

- “Copolymerization of ethylene and butadiene with lanthanocene catalysts”

C. Boisson, F. Barbotin, V. Monteil, M.-F. Llauro, R. Spitz

Poster - 1<sup>ST</sup> Blue Sky Conference on Catalytic Olefin Polymerization - Juin 2002 (Sorrente-Italie)

### 2003

- “Lanthanidocene catalysts for copolymerization of ethylene with butadiene »

C. Boisson, F. Barbotin, V. Monteil, R. Spitz, M.F. Llauro

Poster - European Polymer Conference on Stereospecific Polymerization and Stereoregular Polymers - Juin 2003 (Milan - Italie)

## **2004**

- "Aqueous Dispersions of Extraordinarily Small Polyethylene Nanoparticles"

V. Monteil; L. Kolb ; R. Thomann ; S. Mecking

Poster - 14<sup>th</sup> International Symposium on Homogeneous Catalysis – 04-09 Juillet 2004 (Munich- Allemagne)

- "Alternating copolymerization of ethylene with butadiene using rare-earth-based catalyst"

J. Thuillez, V. Monteil, F. Barbotin, C. Boisson, R. Spitz.

Poster - 40<sup>th</sup> IUPAC International Symposium on Macromolecules – 04-09 Juillet 2004 (Paris-France)

- "Advances and limits in copolymerization of olefins with conjugated dienes"

C. Boisson, V. Monteil, J. Thuillez, R. Spitz, C. Monnet, M.F. Llauro, F. Barbotin, P. Robert

Conférence invitée - 40<sup>th</sup> IUPAC International Symposium on Macromolecules – 04-09 Juillet 2004 (Paris-France)

## **2005**

- "Unique behavior in copolymerization of olefins and conjugated dienes: preparation"

C. Boisson, F. Barbotin, V. Monteil, J. Thuillez, R. Spitz

Poster – 2<sup>ND</sup> Blue Sky Conference on Catalytic Olefin Polymerization – 26-29 Juin 2005 (Sorrente- Italie)

- "1,2-Polybutadiene Latices by Catalytic Polymerization in Aqueous Emulsion"

V. Monteil, A. Bastero, S. Mecking

Poster – Heildeberg Forum of Molecular Catalysis – 8 Juillet 2005

- "Synthesis of Submicrometer Particles of a Stereoregular Polyolefin by Catalysis in Aqueous Dispersion"

A. Bastero, V. Monteil, S. Mecking

Poster – Heildeberg Forum of Molecular Catalysis – 8 Juillet 2005

## 2006

- “Synthèse de Latex de 1,2-Polybutadiène par Polymérisation Catalytique en Emulsion”

V. Monteil, S. Mecking

Poster – Journée 2006 de la Fédération des Polyméristes Lyonnais – 13 Avril 2006 (Villeurbanne, France)

- “Synthèse de Latex de 1,2-Polybutadiène par Polymérisation Catalytique en Emulsion”

V. Monteil, S. Mecking

Poster – Journée de Printemps de la SFC Section Rhône-Alpes – 22 Juin 2006 (Villeurbanne, France)

- “Catalytic Polymerization in Microemulsions : A General Route to Very Small Polymer Particles with Controlled Microstructures”

V. Monteil; P. Wehrmann; S. Mecking

Communication orale – 41<sup>st</sup> IUPAC International Symposium on Macromolecules – 16-21 Juillet 2006 (Rio de Janeiro - Brésil)

## 2007

- “Neodymocene Complexes with Tailored Ligands for the Copolymerisation of Ethylene with Butadiene”

A. Leblanc, F. Barbotin, J. Thuillez, V. Monteil, R. Spitz, C. Boisson

Poster – International Symposium on Fundamental and Applied Polymer Science : Toward Next Generation Materials – 29-31 Janvier 2007 (Strasbourg – France)

- “Silica/Polyethylene Nanocomposite Particles from Catalytic Emulsion Polymerization”

V. Monteil, J. Stumbaum, R. Thomann, S. Mecking

Communication orale – International Symposium on Fundamental and Applied Polymer Science : Toward Next Generation Materials – 29-31 Janvier 2007 (Strasbourg – France)