CURRICULUM VITAE

AVEROUS Luc

Nationality: French.

Full Professor (1st Class)

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Address: ***LIPHT-ECPM, Université de Strasbourg (UdS), 25 Rue Becquerel 67087 Strasbourg Cedex 2 (France)***

UdS: University of Strasbourg
ECPM: Ecole Européenne de chimie, Polymères et Matériaux (European Engineering school for Chemistry, Polymer and Materials)
LIPHT: Laboratoire d'Ingénierie des Polymères pour les Hautes Technologies - EAc CNRS 4379. (Lab of Polymers Engineering for the high Technology)

Personal Website : **http://www.biodeg.net**

Key Words: Bioplastics (biopolymers …), biomaterials, nano-biocomposites, biocomposites, renewable resources, agro-polymers, biocompatible/biodegradable polymers, plastics processing, formulation, polymers properties.

Graduate studies:

1982/84 : Engineer graduate delivered by High Polymers Application School / Ecole d'Application des Hauts polymères (E.A.H.P.) C. Sadron Institute, Strasbourg-France.

1984/85 : Studies of management in Institute of Enterprise Administration / Institut d'Administration des Entreprises (I.A.E.), Strasbourg-France.

1992/95 : Ph.D. from School of Mines of Paris / Ecole Nationale Supérieure des Mines de Paris-France.
Specialty: Science and material engineering.
6th of July, 1995.

2002 : "Aptitude Diploma for Research Direction" From URCA (Reims Champagne-Ardenne University) in Process engineering. Reims- France.
26th of February, 2002

Present Situation:

- **Full Professor** (since 2003) **& Lab CoDirector** at ECPM (Ecole Européene de Chimie, Polymères et Materiaux-European School for Chemistry, Polymers and Materials). Previously, ULP: University Louis Pasteur in Strasbourg - Now, UdS: University of Strasbourg, in France
Laboratory: LIPHT (Laboratoire d'Ingénierie des Polymères pour les Hautes Technologies –Lab of Polymers Engineering for the high Technologies). EAc (CNRS) 4379.

Responsibilities:

Laboratory Head (2009 & 2010)
Laboratory Co-Director (2004-2008) & from Jan. 2011
Responsible of the Team « Biopolymer » at LIPHT (Since 2003)
In charge of the Enterprises-ECPM relationships (Since 2009)
In Charge of the internships for all ECPM students (2004-2006)
Vice-president of "commission locale CNU 33/62" (Since 2004)
Member of the commission locale CNU Section 33, at INPL-Nancy (Since 2004)
Elected Member of the council (administration) **of ECPM** (2004-2008) …

Main Research Topics:
Studies of the relationships between Materials, Process and Properties.
- From 1996 to 2003: Study of multiphase systems (composites, blends, multilayers) based on agro-resources (starches, lignins, cellulose …) and biopolyesters. Development of compostable packaging.
- Since 2003: Bioplastics = Biopolymers and Biomaterials, biodegradable and/or biobased materials. Nano-biocomposites. Structuration of heterophase bio-systems.

PhD Thesis supervisions & management:

1) F. Houllier : Incorporation de co-produits de paille de blé dans des matrices thermoplastiques. Approche de la compatibilité charge-matrice et propriétés des composites. URCA. May 2004.
2) E. Schwach : Etude de systèmes multiphasés biodegradables à base d'amidon de blé plastifié. Relations structure – propriétés. Approche de la compatibilisation. URCA. July 2004.
3) L. Belard : Nouvelle stratégie d'hydrophobisation de matériaux à base d'amidon plastifie. URCA. 19 Dec. 2007.
4) P. Bordes : Nano-biocomposites : étude de systèmes structurés à base de polyhydroxyalcanoates et montmorillonites. ULP. 29 Nov. 2007.
5) F. Chivrac: Nano-biocomposites à base de carbohydrates. ULP. Feb. 2009.
6) E. Hablot: Développement de liants verts pour éco-membranes. Fellowship CIFRE. UdS. 26 Nov. 2009.
7) M.C. Correa: Nano-biocomposites - Etude de systèmes à base de polyhydroxybutyrate –co-valerate plastifié et montmorillonites . Federal University of Sao Carlos UFSCar (Brazil) *Co-direction*. 10 December 2010.
8) M. Griffon: Développement d'isolants verts. Fellowship CIFRE. UdS (Starting Nov. 2008)
9) H. Ozturk: Développement de nouveaux polyesters par catalyse enzymatique. Technical University of Istanbul (Turquey). *Co-direction*.
10) C. Amorosi: Développement de biocapteurs à empreinte moléculaire par polymérisation plasma. Funding from Luxembourg. UdS (Starting Sept. 2009)
11) O. Teixeira de Carvalho : Films biodégradables à base d'amidon de manioc » Université de Sao Paolo (USP – Brésil) *Co-direction***.** (Starting March 2009)
12) S. Laurichesse: Développement de liants verts pour éco-membranes à base de lignines ». Fellowship CIFRE. UdS. (Starting October 2010)

Post-Doct. supervisions:

- Virginia Epure: Development of biomaterials from bio-production. European Funding IP Project (Sept. 2007-March 2009)
- Perrine Bordes: Development of biodegradable materials for air treatment (2008).
- Veronica Martino: Development of biodegradable and biobased materials. European Funding IP (Starting May 2009)
- Elodie Hablot: Development of green materials for eco-membranes. Regional Funding. (From November 2009 - Until end of November 2010).
- Floriane Morel: Development of green materials and scale-up for eco-membranes. Regional Funding. (From December 2010 - Until end of December 2011).

PhD thesis co-supervisions (6)

Master Thesis supervisions (19)

Referee in different journals: Polymer, Polymer International, Chemical Engineering and Processing, Biomacromolecules, Polym Eng & Sci, European Polymer Journal, Cereal Chemistry, Materials Chemistry and Physics, Bioresource Technology, Macromolecular Bioscience, Polymers & Polymer Composites, Macromolecular Materials & Engineering, Journal of Agricultural and Food Chemistry, Colloids and Surfaces A: Physicochemical and Engineering Aspects, Environmental Technology, International Polymer Processing, Progress in Polymer Science, Composites Part A, Journal of Cereal Science, Acta Biomaterialia, Journal of Biomedical Materials Research: Part A, Composites Science and Technology, Carbohydrate Polymers, Wiley's books, Macromolecular Chemistry and Physics (Review of books), Carbohydrate Research, Recent Patents on Materials Science, Solid State Sciences, Applied Clay Science, Macromolecules …

Other:

- **Member of scientific committees**:
  - « International conference on biodegradable polymers and sustainable composites- BIOPOL 2007 » 3-5 October 2007 (Alicante-Spain),
  - « International conference on biodegradable polymers and sustainable composites- BIOPOL 2009 » 30 Sept-2 Oct. 2009 (Alicante-Spain)
  - "First international conference on Materials Bioproducts interactions". MATBIM 2010. 3-5 March 2010 Paris (France)
  - « The 4th International Meeting On Molecular Chemistry and Development ». RICMD4. 24-27 November, Marrakech (Maroc)
  - « Polymer Science and Engineering : Emerging Solutions » PSE-2010, in Collaboration with Asian Polymer association (APA). 26-27 November, 2010 (India)
  - "Chemical & Biochemical Wood Valorization (WoodChem 2011)", 1-2 December 2011 (Strasbourg- France)
  - ILSI Europe 5th International Symposium on "Food Packaging - Scientific Developments supporting Safety and Innovation", 14 - 16 November 2012 (Berlin, Germany).

- (**Co-)Organization of International Symposia and Conferences**:
  - Symposium « Biomaterials » PPS-23, Mai 2007 -Salvador (Brazil)
  - "Materials from Natural/Renewal Resource" (MNRR) du MFMS 2008. 28-31 July 2008 - Hong Kong (China)
  - "Green Polymers" Symposium". 8th World Congress of Chemical Engineering" (WCCE8)". 23-27 August 2009 -Montréal (Canada)

- "First international conference on Materials Bioproducts Interactions". MATBIM 2010. 3-5 March. 2010 – Paris (France)
- "Polymers from Renewable Resources" Symposium, PPS-26, 4-8 July 2010 - Banff, Alberta (Canada)
- « International conference on biodegradable and biobased polymers - BIOPOL 2011 » 29-31 August 2011 (Strasbourg- France) (**Chairperson**)
- "Chemical & Biochemical Wood Valorization (WoodChem 2011), 1-2 December 2011 (Strasbourg- France) (**Chairperson**)

- **Co-organization of National Scientific Meeting:**
  - "Journée Polymères Thérapeutiques", GFP, 18 June 2009 - Strasbourg, France
  - Journée Scientifique du PMNA, 18 Feb. 2011 – Strasbourg, France.

- **Member** of different "**Editorial Boards**" of International Journals:
  - The Open Environmental Engineering Journal (Bentham Science Publishers)
  - The Open Polymer Science Journal (Bentham Science Publishers)
  - The Open Macromolecules Journal (Bentham Science Publishers)
  - The Open Biomaterials Journal (Bentham Science Publishers)
  - Associated Editor of Journal of Chinese Clinical Medicine

- **Invited Editor** of International Journals:
  - *Guest Editor at International Journal of Polymer Science. Volume : Natural Fibres, Bio- and Nanocomposites (Sept. 2011)*
  - *Main Guest Editor at Polymer degradation and Stability. Special Issue : BIOPOL 2011*

Main publications & communications:

Edition of books:

- S. Kalia and L. Avérous. "Handbook of Biopolymers and Their Applications". **Scrivener Publishing**. Publication end 2011. ISBN : 978-3-642-17369-1.
- L. Avérous and E. Pollet. « Environmental Silicate Nano-biocomposites ». **Springer-Verlag (London)**. Publication in 2012.
- P. Halley and L. Avérous. « Starch Polymers – From Genetic Engineering to Green Applications ». **Elsevier Limited Publication**. Publication in 2013.

Articles with impact factors:

1) Avérous L., Quantin J.C., Lafon D., Crespy A. (1995), "Determination of 3D orientations in reinforced thermoplastics, using scanning electron microscopy." **Acta Stereologica (Image analysis & Stereology)**, Vol. 14/1, pp. 69-74.
2) Avérous L., Quantin J.C., Lafon D., Crespy A. (1995), "Granulometric characterization of short fiberglass in reinforced polypropylene. Relation to processing conditions and mechanical properties." **Int J. Polymer Analysis & Characterization**, Vol. 1, N°4, pp. 339-347.
3) Avérous L., Quantin J.C., Lafon D., Crespy A. (1996), "Morphological determinations of fiber composites" **Microscopy-Microanalysis-Microstructures**, Vol. 7, pp. 433-439.
4) Avérous L., Quantin J.C., Crespy A., Lafon D. (1997), "Evolution of the three-dimensional orientation of glass fibers in injected isotactic polypropylene." **Polym. Eng. Sci**., Vol. 37, N°2, pp. 329-337.
5) Avérous L., Quantin J.C., Crespy A. (1998), "Determination of the microtexture of reinforced thermoplastics by image analysis." **Composites Science and Technology,** Vol . 58, N° 3-4, pp. 377-387.
6) Avérous L., Gauvin R. (1998), "Surface analysis of phenolic composites obtained by RTM Process" **Journal of Reinforced Plastics and Composites**, Vol. 17, N°13, pp. 1167-1184.
7) Avérous L, Moro L, Dole P, Fringant C. (2000) "Properties of thermoplastics blends: starch-polycaprolactone." **Polymer**. Vol. 41, N°11, pp 4157-4167.
8) Avérous L, Fauconnier N., Moro L, Fringant C. (2000) "Blends of thermoplastic starch and polyesteramide: Processing and properties." **Journal of Applied Polymer Science**. Vol. 76, N°7, pp. 1117-1128.
9) Avérous L., Fringant C. (2001) "Association between plasticized starch and polyesters: processing and performances of injected biodegradable systems." **Polym Eng. Sci.**, Vol. 41, N°5, pp. 727-734.
10) Martin O., Avérous L. (2001). "Poly(lactic acid): plasticization and properties of biodegradable multiphase systems." **Polymer**, Vol 42, N° 14, pp. 6209-6219.
11) Avérous L., Fringant C., Moro L. (2001). "Starch-based biodegradable materials suitable for Thermoforming Packaging." **Starch/Starke**, Vol. 53, N°8. pp. 368-371.
12) Avérous L., Fringant C., Moro L. (2001). "Plasticized starch-cellulose interactions in polysaccharide composites." **Polymer**, Vol 42, N° 15, pp. 6571-6578.
13) Martin O., Schwach E., Avérous L, Couturier Y. (2001). "Properties of Biodegradable Multilayer Films Based on Plasticized Wheat Starch." **Starch/Starke**, Vol.53, N°8. pp. 372-380.
14) Martin O, Avérous L (2002). "Comprehensive experimental study of a starch/polyesteramide coextrusion."**Journal of Applied Polymer Science**.Vol. 86, N°10, pp. 2586-2600.
15) Pouteau C., Dole P., Cathala B., Avérous L., Boquillon N. (2003) "Antioxidant properties of lignin in polypropylene", **Polymer Degradation and Stability**. Vol. 81, N°1, pp 9-18.
16) Martin O, Avérous L, Della Valle G (2003). "Inline determination of plasticized wheat starch viscous behaviour: Impact of processing."

Carbohydrate Polymers. Vol. 53 N°2, pp. 169-182.
17) Avérous L., Boquillon N. (2004). "Biocomposites based on plasticized starch: thermal and mechanical behaviours". **Carbohydrate Polymers**. Vol. 56 N°2 pp. 111-122
18) Avérous L (2004). "Biodegradable multiphase systems based on plasticized starch: a review." **Polymer Reviews**. Vol. 44, N°3, pp. 231-274
19) Le Digabel F., Boquillon N., Dole P., Monties B., Averous L. (2004) "Properties of thermoplastic composites based on wheat straw lignocellulosic fillers". **Journal of Applied Polymer Science.** Vol. 93 N°1 pp. 428-436.
20) Schwach E., Averous L. (2004). "Starch-based biodegradable blends: morphology and interface properties". **Polymer International**. Vol. 53 N°12 pp. 2115-2124.
21) Dole P., Avérous L., Joly C., Della Valle G., Bliard C. (2005) "Evaluation of PE-starch multilayers: Processing and properties.". **Polym. Eng. Sci**., Vol. 45 N°2. pp**.** 217-224.
22) Belard L., Dole P., Avérous L. (2005). « Current progress on biodegradable materials, based on plasticized starch ». **Australian Journal of Chemistry**, Vol. 58, N°6, pp 457–460.
23) Avérous L., Le Digabel F (2006) "Properties of biocomposites based on lignocellulose fillers" **Carbohydrate Polymers**, Vol. 66, N°4, pp 480-493.
24) Le Digabel F., Avérous L. (2006) "Effects of lignin content on the properties of lignocellulose-based biocomposites" **Carbohydrate Polymers**, Vol.66, N°4, pp 537-545.
25) Chivrac F., Kadlecová Z., Pollet E., Avérous L. (2006) "Aromatic Copolyester-Based Nano-Biocomposites: Elaboration, Structural Characterization and Properties" **Journal of Polymers and the Environmen**t, Vol. 14, N°4, pp. 393-401.
26) Chivrac F., Pollet E., Avérous L. (2007) "Non-isothermal crystallization behaviour of poly(butylene adipate-co-terephthalate) / clay nano-biocomposites" **Journal of Polymer Science Part B: Polymer Physics.** Vol. 45, N°13, pp. 1503-1510.
27) Avérous L. (2007). "Cellulose-based biocomposites: comparison of different multiphasic systems" **Composite Interfaces**. Vol. 14, No. 7–9, pp. 787–805.
28) Hablot E., Bordes P., Pollet E., Avérous L. (2008) "Thermal and thermo-mechanical degradation of poly(3-hydroxybutyrate)-based multiphase systems" **Polymer Degradation & Stability,** Vol. 93, N°2, pp. 413-421
29) Chivrac F., Pollet E., Schmutz, M., Avérous L. (2008) "New approach to elaborate exfoliated starch-based nano-biocomposites" **Biomacromolecules,** Vol. 9 N°3, pp. 896-900
30) Pogodina N., Cerclé C., Avérous L., Thomann R., Bouquey M., Muller R. (2008) « Processing and Characterization of Biodegradable Polymer Nanocomposites. Detection of Dispersion State » **Rheologica Acta**, Vol. 47, N°5-6, pp. 543–553
31) Bordes P., Pollet E., Bourbigot S., Avérous L. (2008) « Structure and properties of PHA/clay nano-biocomposites prepared by melt intercalation » **Macromolecular chemistry & physic**s, Vol. 209, N°14, pp. 1473-1484
32) Chivrac F., Gueguen O., Pollet E., Ahzi S., Makradi A., Avérous L. (2008) « Micromechanical Modeling and Characterization of the Effective Properties in Starch Based Nano-Biocomposites" **Acta Biomaterialia**, Vol. 4, N°6, pp. 1707-1714
33) Schwach E., Six JL, Avérous L. (2008) "Biodegradable blends based on starch and poly(lactic acid): Comparison of different strategies and estimate of compatibilization." **Journal of Polymers and the Environmen**t, Vol. 16, N°4, pp. 286-297
34) Hablot E., Zheng D., Bouquey M., Avérous L. (2008) "Polyurethanes based on Castor Oil: Kinetics, Chemical, Mechanical and Thermal Properties" **Macromolecular Materials & Engineering**. Vol. 293 N°11 pp. 922-929
35) Bordes P., Pollet E., Avérous L. (2009) « Nano-biocomposites: Biodegradable polyester/nanoclay systems » **Progress in Polymer Science**, Vol. 34. pp. 125-155.
36) Belard L., Dole P., Avérous L. (2009) "Study of pseudo-multilayer structures based on starch-polycaprolactone extruded blends" **Polym. Eng. Sci**., Vol. 49, N°6, pp. 1177-1186.
37) Avérous L., Halley P.J. (2009) « Biocomposites based on plasticized starch. » **Biofuels, Bioproducts & Biorefining**. Vol. 3, N°3, 329-343
38) Bordes P., Hablot E., Pollet E., Avérous L. (2009) "Effect of clay organomodifiers on polyhydroxyalkanoates degradations" **Polymer Degradation & Stability,** Vol. 94, N°5, pp. 789-796.
39) Branciforti M.C., Custodio T.A., Guerrini L.M., Averous L., Bretas R.E.S. (2009) "Characterization of nano-structured poly(D,L-lactid acid) nonwoven mats obtained from different solutions by electrospinning", **Journal of Macromolecular Science, Part B, Physics**, Vol. 48, N°6, pp. 1222–1240.
40) Chivrac F., Pollet E., Avérous L. (2009) "Progress in Nano-Biocomposites Based on Polysaccharides and Nanoclays" **Materials Science & Engineering R**. Vol. 67, pp. 1-17
41) Chivrac F., Pollet E., Avérous L. (2010) "Shear Induced Clay Organo-Modification: Application to Plasticized Starch Nano-biocomposites." **Polymers for Advanced Technologies**. Vol. 21, N° 8, pp. 578-583.
42) Chivrac F., Gueguen O., Pollet E, Averous L, Ahzi, S. Belouettar S., (2010) "Micromechanically-based formulation of the cooperative model for the yield behavior of starch-based nano-biocomposites" **Journal of Nanoscience and Nanotechnology**. Vol. 10, pp. 2949–2955
43) Chivrac F., Pollet E., Dole P., Avérous L. (2010) "Starch-Based Nano-Biocomposites: Plasticizer Impact on the Montmorillonite Exfoliation Process" **Carbohydrate Polymers.** Vol. 79, pp. 941–947.
44) Chivrac F., Pollet E., Avérous L. (2010) "Starch nano-biocomposites based on needle-like sepiolite clays" **Carbohydrate Polymers.** Vol. 80, pp. 145–153.
45) Hablot E, Matadi R, Ahzi S, Avérous L. (2010) "Renewable biocomposites of dimer fatty acid-based polyamides with cellulose fibres: thermal, physical and mechanical properties". **Composites Science and Technology**. Vol. 70, pp. 504–509.
46) Hablot E, Matadi R, Ahzi S, Vaudemond R, Ruch D, Avérous L. (2010) "Yield behaviour of renewable biococomposites of dimer fatty acid-based polyamides with cellulose fibres". **Composites Science and Technology**. Vol. 70, pp. 525–529.
47) Halary J.L., Avérous L., Borredon M.E., Bourbigot S., Boutevin B., Bunel C., Caillol S., Commereuc S., Duquesne S., Lecamp L., Leibler L., Pollet E., Soulié-Ziakovic C., Tournilhac F., Vaca-Garcia C., Verney V. (2010). « Polymer materials and sustainable development / Matériaux polymères et développement durable ». **Actualité Chimique**. Vol. 338-339. pp. 41-53.
48) Martino V.P., Ruseckaite R.A., Jiménez A., Averous L. (2010) "Correlation Between Composition, Structure and Properties of Poly(lactic acid) - Polyadipate Based Nano-Biocomposites" **Macromolecular Materials & Engineering**, Vol. 295. N°6, pp. 551-558.
49) Chivrac F., Angellier-Coussy H., Guillard V., Pollet E., Avérous L. (2010) "How does water diffuse in starch/montmorillonite nano-biocomposite materials?" **Carbohydrate Polymers.** Vol. 82. N°1 pp. 128–135.

50) Hablot E., Donnio B., Bouquey M., Avérous L. (2010) « Dimer acid-based thermoplastic bio-polyamides: reaction kinetics, properties and structure ». **Polymer**, Vol. 51, N°25, pp. 5895-5902.
51) Epure V., Griffon M., Pollet E., Avérous L. (2011). « Structure and properties of glycerol plasticized chitosan obtained by mechanical kneading » **Carbohydrate Polymers,** Vol. 83 N°2 pp. 947-952.
52) Martino V.P., Jiménez A., Ruseckaite R.A., Averous L. (2011) « Structure and properties of clay nano-biocomposites based on Poly(lactic acid) plasticized with polyadipates » **Polymers for Advanced Technologies**, DOI: 10.1002/pat.1747.
53) Albuquerque M.G.E., Martino V., Pollet E., Avérous L., Reis M.A.M. (2011) « Mixed culture polyhydroxyalkanoate (PHA) production from volatile fatty acid (VFA)-rich streams: Effect of substrate composition and feeding regime on PHA productivity, composition and properties.» **Journal of Biotechnology**. Vol. 151, N°1, pp. 66-76.
54) Matadi R., Hablot E., Wang K., Bahlouli N., Ahzi S., Avérous L. (2011) « High strain rate behaviour of renewable biocomposites based on dimer fatty acid polyamides and cellulose fibres » **Composites Science and Technology**. DOI : 10.1016/j.compscitech.2011.01.010.
55) Escapa I. F., Morales V., Martino V. P.; Pollet E., Avérous L., García J. L., Prieto M. A. (2011) "Disruption of β-oxidation pathway in Pseudomonas putida KT2442 to produce new functionalized PHAs with thioester groups", **Applied Microbiology and Biotechnology**, Vol. 89, N° 5, pp. 1583-1598,
56) Courgneau C., Domenek S., Guinault A., Averous L., Ducruet L. (2011) « Analysis of the structure-properties relationships of different multiphase systems based on plasticized PLA. ». **Journal of Polymers and the Environment**. DOI: 10.1007/s10924-011-0285-5

Book chapters:

1- Averous L., Quantin J.C., Lafon L., Crespy A. (1996) « Approche prévisionnelle dans la détermination du module d'élasticité de composites à matrice thermoplastique (Estimated approach in the determination of elastic modulus for composites with thermoplastic matrix) » In « Journées nationales sur les composites N°10 », Editeurs : D. Baptiste D. et A. Vautrin; **Edition AMAC**, Paris, pp. 875-881. (ISBN: 2-9505117-3-2)

2- Avérous L., Fringant C., Martin O. (1999), "Coextrusion of biodegradable starch-based materials" In « Biopolymer Science: Food and non food applications.», Editeurs : Colonna P. et Guilbert S., **INRA Editions**, pp. 207-212. (ISBN: 2-7380-0874-7).

3- Avérous L. (2002) "Interactions between cellulose and plasticized wheat starch. – Properties of biodegradable multiphase systems." In "Plant biopolymer Science: Food and non food applications", Editeurs : Renard D., Della Valle G. et Popineau Y., **RSC Editions** (Cambridge-UK) pp. 253-259. (ISBN: 0-85404-856-1 - ISSN: 0260-6291)

4- Vilpoux O., Avérous L. (2003); Plásticos a base de amido» In « Tecnologia, usos e potencialidades de tuberosas amiláceas Latino Americanas », Editeurs : Cereda M.P. et Vilpoux O. São Paulo: Fundação Cargill. **Series Culturas de Tuberosas Latinoamericanas**. Vol.3, Chapitre 18. pp. 499-529.

5- Vilpoux O., Avérous L. (2004). « Starch-based plastics» In « Technology, use and potentialities of Latin American starchy tubers », Eds: Cereda M.P. et Vilpoux O.; **Collection latin american starchy tubers.** NGO Raízes and Cargill Foundation -São Paolo– Brazil. Book N°3, Chap 18. pp. 521-553

6- Avérous L. (2008) "Polylactic acid: synthesis, properties and applic ations" In "Monomers, Polymers and Composites from renewable resources" Eds: Belgacem N. et Gandini A., **Elsevier Limited Publication**. Chap. 21. pp 433-450. (ISBN: 978-0-08-045316-3)

7- Avérous L. (2008) "Multilayer Coextrusion of Starch/Biopolyester" In "Biodegradable Polymer Blends and Composites from Renewable Resources" Ed. Long Yu, **John Wiley & Sons Inc**., Chap. 18, pp. 441-464 (ISBN: 9780470146835)

8- Chivrac F., Pollet E., Avérous L. (2009) "Mechanical properties of starch-based nano-biocomposites" In "Trends in Polymer Research" Ed. G. E. Zaikov, A. Jimenez et Y.B. Monakov, **Nova Publishers**, Chap. 2, pp. 17-28 (ISBN: 1-59454-274-0)

9- Bordes P., Pollet E., Avérous L. (2009) "Potential Use of Polyhydroxyalkanoate (PHA) for Biocomposites Development" In « Nano- and Biocomposites » Ed. F. Hussain, A. Kin-tak Lau et K. Lafdi, **CRC Press**, Taylor & Francis Group, Chap. 8, pp. 193-225 (ISBN: 9781420080278)

10- Pollet E., Avérous L. (2010) "Recent results in Nano-Biocomposites based on Montmorillonites" dans "Advances in Polymer Nanocomposite Technology" Ed. Vikas Mittal, **Nova Publishers**, Chap. 11, pp. 315-354 (ISBN : 978-1-60741-970-9)

11- Hablot E., Matadi R., Ahzi S., Avérous L. (2011) « Mechanical properties of dimer fatty acid-based polyamides biocomposites » In « Biodegradable Polymers and Sustainable Composites » Eds. A. Jimenez & G. E. Zaikov, **Nova Publishers**, Chap. 3. (ISBN : 978-1-61209-520-2)

12- Öztürk H., Pollet E., Hébraud A., Avérous L. (2011) « Lipase catalyzed synthesis of biopolyester and related clay-based nanohybrids » In « Biodegradable Polymers and Sustainable Composites » Eds. A. Jimenez & G. E. Zaikov, **Nova Publishers**, Chap. 8. (ISBN : 978-1-61209-520-2)

13- Xie F., Halley P.J., Avérous L. (2011) « Bio-nanocomposites based on starch » In « Nanocomposites with Biodegradable Polymers: Synthesis, Properties and Future Perspectives » Ed. Vikas Mittal. **Oxford University Press**, Oxford, UK, Chap. 10, pp. 234-260 (ISBN : 978-0-19-958192-4).

14- Avérous L. (2011) « Biocomposites based on Biodegradable Thermoplastic Polyester and Ligno-cellulose Fibers » In « Cellulose Fibers: Bio- and Nano-Polymer Composites: Green Chemistry and Technology » Eds.: Kalia S., Kaith B. S., Kaur I. **John Wiley & Sons**. Chap. 17, pp. (ISBN: 978-3-642-17369-1).

15- Pollet E., Avérous L. (2011) « Production, chemistry and properties of polyhydroxyalkanoates » In « Films and coatings from renewable resources – An applications perspective » Ed. D. Plackett. **John Wiley & Sons**. Chap. 4, pp. 65-86 (ISBN: 978-0-470-68341-5)

Articles without impact factors:

- Avérous L. (2010). Nano- and Biocomposites. **MaterialsToday**, Vol 13, N°4, p. 57.

- Avérous L. (2009) "Biodegradable Polymer Blends and Composites from Renewable Resources » Book Review - **Macromolecular Chemistry and Physics**, Vol. 210, N° 10, p 890. (DOI: 10.1002/macp.200900141).

- Avérous L. (2007) « Les polymères biodégradables : quelles finalités, quelles opportunités ? » Bulletin du GFP Numéro 106 (Mars 2007). pp. 13-16 (*ISSN 1118-1412*).

- Boquillon N, Laignel B., Avérous L. (2002) "Development of biodegradable packaging from renewable resources". **Food, Cosmetics and Drug Packaging** (Elsevier Publication), Vol.25, N°5, pp. 96-99. (*ISSN: 0951-4554*).

Invited Communications (Outside congress**):**

1- Avérous L (2004), Recent developments on plasticized starch-based biodegradable materials. University of Queensland. Brisbane (Australie). 25 November, 2004.
2- Avérous L (2005), "Biodegradable polymeric materials based on renewable resources. From the elaboration to the caracterization." ICT – Polymer Departement. Pragua (Czech Republic) 18 October, 2005.
3- Avérous L. (2005) "Nano-Biocomposites : Nanofillers organization in biopolymer matrices" ICT – Polymer Departement. Pragua (Czech Republic) 18 October, 2005.
4- Avérous L. (2005) « Materials based on Starch ». Universidade Sao Francisco, Itatiba (Brazil) 4 November, 2005
5- Avérous L. (2005) « Starch-based biodegradable materials ». Departamento de Engenharia de Alimentos, Universidade de Sao Paulo, Pirassununga (Brazil) 8 November, 2005
6- Avérous L. (2006) « Matériaux multiphasés à base d'amidon » CERMAV- Grenoble (France) 26 June 2006
7- Avérous L. (2007) « Materials based on renewable resources » Escola Politecnica, Universidade de Sao Paulo, Sao Paulo (Brazil) 24 May 2007
8- Avérous L. (2007) « Towards the Improvement of Green Plastics » Australian Institute for Bioengineering and Nanotechnology (AIBN) University of Queensland – Brisbane (Australia) 4 July 2007 (Invited Professor)
9- Avérous L. (2008) « Au carrefour du Bio et du nano : les nano-biocomposites » Université de Lille. Villeneuve d'Ascq (France) 29 Feb 2008.
10- Avérous L. (2008) « Les nano-biocomposites : Analyse des relations (nano/micro) structures-propriétés » » Supagro, Montpellier (France) 15 May 2008.
11- Avérous L. (2008) «Recent advances on Starch-based Nano-Biocomposites » Monash University, Melbourne (Australia) 8 Sept 2008
12- Avérous L. (2008) « Nano-biocomposites: Some recent results » CSIRO, Clayton, Melbourne (Australia) 11 Sept 2008
13- Avérous L. (2008) « Progress on Nano-biocomposites based on biopolymers » University of Queensland- – Australian Institute for Bioengineering and Nanotechnology, Brisbane (Australia) 19 Sept 2008.
14- Avérous L. (2009) "Recent Progress on Nano-biocomposites" Université de Haute Alsace, Mulhouse (**France**) 15 January 2009.
15- Avérous L. (2010) « Usos de recursos renovables » Instituto de Tecnologías y Ciencias de la Ingeniería "Hilario Fernández Long", Universidad de Buenos Aires (UBA), Buenos Aires (Argentine), 12 March 2010.
16- Avérous L. (2010) « Biodegradable and Biobased Polymers » Universidad de Buenos Aires, Buenos Aires (Argentine), 15 March 2010.
17- Averous L. (2010) «Nano-biocomposites based on renewable resources and packaging » CIDCA, Universidad Nacional de la Plata (UNLP), La Plata (Argentine), 16 March 2010.
18- Averous L. (2010) «Starch-based Nano-biocomposites » Institute of Materials Science and Technology (INTEMA) Universidad Nacional de Mar del Plata (UNMDP) - National Research Council (CONICET), Mar del Plata (Argentine), 17 March 2010.
19- Averous L. (2010) "Renewable Nano-biocomposites" Instituto de Ciencia y Tecnología de Polímeros, ICTP-CSIC, Madrid (**Espagne**), 27 Avril 2010.
20- Averous L. (2010) " New nano-biocomposites based on biodegradable and biobased polymers. » Polytechnico di Torino, Alessandria (**Italie**), 13 May 2010.
21- Averous L. (2010) « Les nano-biocomposites : Carrefour du Bio et du Nano » Ecole des Mines d'Ales, Ales (France), 2 December 2010.
22- Averous L. (2010) « Innovative bio-based materials » Universidade de Sao Paulo (USP), Sao Carlos (**Brazil**), 9 December 2010.
23- Averous L. (2010) « New renewable and bio-based polymer systems » Universidade Federal de Sao Carlos (UFSCar), Sao Carlos (**Brazil**), 14 December 2010.

Oral Communications: 70 (more than 40 as invited speaker)
Posters: 80

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