

Florent Allais

Prof. Dr. Habil. Dir.
Director of the Chaire ABI

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DOB: April, 12th 1977 (Agen, 47 - France)

Research Topics

- **Lignocellulosic biomass valorization** using **white biotechnologies, green chemistry** and **Chemical/process engineering**: bio-based monomers/oligomers/polymers, syn-thons, ingredients, surfactants, flavor and fragrances, bioactive (macro)molecules (e.g., antioxidant, antimicrobial) . . .
- Total synthesis of biologically relevant phenolics

Present & previous positions

- Oct. 2012 - **Full Professor & Director of the Chaire Agro-Biotechnologies Industrielles (ABI)**, Present *AgroParisTech*, Reims, France.
- Sep. 2007 - **Senior Scientist, Chargé de Recherche 2^{ème}/1^{ère} classe**, INRA-Versailles, France.
Sep. 2012
- Oct. 2006 - **Post-doctoral fellow, (with Dr. Boivin)**, ICSN, Gif-sur-Yvette, France.
Aug. 2007
- June 2004 - **Post-doctoral fellow, (with Prof. Cossy)**, ESPCI, Paris, France.
July 2006
- Aug. 2000 - **Graduate student - Teaching/Research assistant, (with Prof. Enholm)**, U. of Florida, Gainesville, FL USA.
May 2004
- Oct. 1999 - **DEA internship (M.Sc.)** , (with Prof. Landais), Université Bordeaux I, Talence, France.
July 2000

Education

- 2013 **Habilitation (HDR)**, Université Paris XI, Orsay, France.
- 2000-2004 **Ph.D. (Summa Cum Laude - GPA 4.0)**, U. of Florida, Gainesville, FL USA.
- 1999-2000 **M.Sc. in Chemistry DEA (with Honors)**, U. Bordeaux I – LCOO, Talence, France.
- 1995-1999 **B.Sc. DEUG/Licence/Maîtrise de Chimie (with Honors)**, U. Bordeaux I - LCOO, Talence, France.

Contribution to scientific evaluation

- 2013-Present **Commission of « Biomolécules » Pôle IAR.**
 - Member
- 2013-Present **Scientific council of the SFR Condorcet.**
 - Appointed member
- 2011-2015 **Scientific council of the INRA Versailles-Grignon Research Center.**
 - Elected member

2015-Present **Associate Editor of Frontiers in Chemistry.**

2010-Present **Reviewing activities and scientific evaluation.**

- Reviewer for the following journals: *J. Org. Chem.*, *Green Chem.*, *Org. Lett.*, *Eur. J. Org. Chem.*, *N. J. Chem.*, *RSC Adv.*, *Macromolecules*, *Biomacromolecules*, *Polymer*, *Food Chem.*, ...
- Scientific expertise and evaluation: ANR, NWO (The Netherlands), CFREF (Canada)

Involvement in structuring and multidisciplinary research projects

2013-Present **Principal investigator**, *Research contract with Circa Group*, Australia.

2013-Present **Principal investigator**, *Research project Polyester within the Chaire ABI.*

2012-2015 **Principal investigator**, *Research contract with Saint-Gobain-Recherche (CIFRE) within the Institut Carnot 3BCAR.*

2013-Present **Contributor** to the Process Engineering and Microbiology related research projects within the Chaire ABI.

Undergraduate and (post-)graduate students supervision (B.Sc. and M.Sc. internships, graduate students, post-doctoral fellows)

- 7 Ph.D. theses
- 7 post-doctoral fellows
- 30 M.Sc. students in Chemistry and Microbiology
- 16 B.Sc. students in Chemistry

Professional and scholarly associations

From 2011 **ACS**, *American Chemical Society.*

From 2013 **SCF**, *Société Chimique de France.*

From 2013 **GFP**, *Groupement Français d'études et applications des Polymères.*

From 2003 **SMI**, *Society for Molecular Imprinting.*

From 2014 **GP**, *Groupe Polyphénols.*

From 2015 **RSC**, *Royal Society of Chemistry.*

Awards and Honors

2003 **MacLaughlin Dissertation Fellowship**, *University of Florida.*

2002 **Teaching award in Organic Chemistry**, *University of Florida.*

Scientific production

Summary:

- 7 patents
- 31 publications in peer-reviewed journals (H-index: 10), 2 proceedings/preprints, 1 book chapter
- 3 invited conferences, 5 invited seminars
- 14 oral communications & 37 posters

Patents

1. Procédé de synthèse d'un précurseur d'un unique isomère de dairy-lactone, *Allais,* F. et al.*, submitted in 10th Apr. 2015.
2. Composition d'encollage pour laine minérale à base de sel de métal alcalin ou alcalino-terreux d'acide sulfonique et d'un composé carbonylé, et produits isolants obtenus, *Allais,* F. et al.*, submitted in 30th Jan. 2015.
3. Composition d'encollage pour laine minérale à base de lignosulfonate d'ammonium et d'un composé carbonylé, et produits isolants obtenus, *Allais,* F. et al.*, submitted in 30th Jan. 2015.
4. Liant pour fibres minérales à base de sel de métal alcalin ou alcalino-terreux d'acide sulfonique et d'un composé carbonylé, et mats obtenus, *Allais,* F. et al.*, submitted in 30th Jan. 2015.
5. Liant pour fibres minérales à base de lignosulfonate d'ammonium et d'un composé carbonylé, et mats fibreux obtenus, *Allais,* F. et al.*, submitted in 2014.
6. Chemo-enzymatic transformation of levoglucosenone into valuable chemical intermediates, *Allais,* F. et al.*, submitted in 2nd May 2014.
7. Phenolic polymers with exclusive 5,5-biaryl bonds, their preparation and applications, *Allais,* F. et al.*, submitted in 14th Oct..

Publications in peer-reviewed journals

- [1] Felix Armando Reano, Florian Pion, Sandra Domenek, PH Ducrot, and Florent Allais. Chemo-enzymatic preparation and characterization of renewable oligomers with bisguaicol moieties: promising sustainable antiradical/antioxidant additives. *Green Chem.*, pages –, 2016.
- [2] Petit M. Elie N. Baumberger S. Arnaud A. Ducrot P.H. F. Allais Broussard, O. Monitoring of free phenol content in lignosulfonates by clo₂ titration and uv difference spectroscopy. *Holzforschung*, pages doi:10.1515/hf-2015-0111, 2016.
- [3] Lewis A. Baker, Michael D. Horbury, Simon E. Greenough, Florent Allais, Patrick S. Walsh, Scott Habershon, and Vasilios G. Stavros. Ultrafast photoprotecting sunscreens in natural plants. *The Journal of Physical Chemistry Letters*, 7(1):56–61, 2016.
- [4] G. Burgé, F. Chemarin, M. Moussa, C. Saulou-Bérion, F. Allais, H.E. Spinnler, and V. Athès. Reactive extraction of bio-based 3-hydroxypropionic acid assisted by hollow-fiber membrane contactor using toa and aliquat 336 in n-decanol. *Journal of Chemical Technology Biotechnology*, page DOI:10.1002/jctb.4878, 2016.
- [5] Armando F. Reano, Julie Chérubin, Aurélien M. M. Peru, Qiao Wang, Tiphaine Clément, Sandra Domenek, and Florent Allais. Structure–activity relationships and structural design optimization of a series of p-hydroxycinnamic acids-based bis- and trisphenols as novel sustainable antiradical/antioxidant additives. *ACS Sustainable Chemistry & Engineering*, 3(12):3486–3496, 2015.
- [6] G. Burgé, C. Saulou-Bérion, M. Moussa, F. Allais, V. Athes, and H.E. Spinnler. Relationships between the use of embden meyerhof pathway (emp) or phosphoketolase pathway (pkp) and lactate production capabilities of diverse lactobacillus reuteri strains. *Journal of Microbiology*, 53(10):702–710, 2015.

- [7] G. Burgé, C. Saulou-Bérion, M. Moussa, B. Pollet, A. Flourat, F. Allais, V. Athès, and H.E. Spinnler. Diversity of lactobacillus reuteri strains in converting glycerol into 3-hydroxypropionic acid. *Applied Biochemistry and Biotechnology*, 177(4):923–939, 2015.
- [8] G. Burgé, A. L. Flourat, B. Pollet, H. E. Spinnler, and F. Allais. 3-hydroxypropionaldehyde (3-hpa) quantification by hplc using a synthetic acrolein-free 3-hydroxypropionaldehyde system as analytical standard. *RSC Adv.*, 5:92619–92627, 2015.
- [9] M. Moussa, G. Burgé, F. Chemarin, R. Bounader, C. Saulou-Bérion, F. Allais, H.E. Spinnler, and V. Athès. Reactive extraction of 3-hydroxypropionic acid from model aqueous solutions and real bioconversion media. comparison with its isomer 2-hydroxypropionic (lactic) acid. *Journal of Chemical Technology Biotechnology*, page DOI:10.1002/jctb.4813, 2015.
- [10] Betty Cottyn, Michael Rivard, Amel Majira, Josiane Beauhaire, Florent Allais, Thierry Martens, Stéphanie Baumberger, and Paul-Henri Ducrot. Comparative electrochemical study on monolignols and dimers relevant for the comprehension of the lignification process. *Phytochemistry Letters*, 13:280 – 285, 2015.
- [11] Mouandhoime Zahha Oulame, Florian Pion, Shaik Allaiddin, Kothapalli V.S.N. Raju, Paul-Henri Ducrot, and Florent Allais. Renewable alternating aliphatic-aromatic poly(ester-urethane)s prepared from ferulic acid and bio-based diols. *European Polymer Journal*, 63(0):186 – 193, 2015.
- [12] Imane Barbara, Amandine L. Flourat, and Florent Allais. Renewable polymers derived from ferulic acid and biobased diols via admet. *European Polymer Journal*, 62(0):236 – 243, 2015.
- [13] A. L. Flourat, A. A. M. Peru, A. R. S. Teixeira, F. Brunissen, and F. Allais. Chemo-enzymatic synthesis of key intermediates (s)- γ -hydroxymethyl- α,β -butenolide and (s)- γ -hydroxymethyl- γ -butyrolactone via lipase-mediated baeyer-villiger oxidation of levoglucosenone. *Green Chem.*, 17:404–412, 2015.
- [14] Jacob C. Dean, Ryoji Kusaka, Patrick S. Walsh, Florent Allais, and Timothy S. Zwier. Plant sunscreens in the uv-b: Ultraviolet spectroscopy of jet-cooled sinapoyl malate, sinapic acid, and sinapate ester derivatives. *Journal of the American Chemical Society*, 136(42):14780–14795, 2014.
- [15] Florian Pion, Paul-Henri Ducrot, and Florent Allais. Renewable alternating aliphatic-aromatic copolyesters derived from biobased ferulic acid, diols, and diacids: Sustainable polymers with tunable thermal properties. *Macromolecular Chemistry and Physics*, 215(5):431–439, 2014.
- [16] Florian Pion, Armando F. Reano, Paul-Henri Ducrot, and Florent Allais. Chemo-enzymatic preparation of new bio-based bis- and trisphenols: new versatile building blocks for polymer chemistry. *RSC Adv.*, 3:8988–8997, 2013.
- [17] Louis Mouterde, Amandine Flourat, Molly Cannet, Paul Henri Ducrot, and Florent Allais. Chemoenzymatic Total Synthesis of a Naturally Occurring (5-5')/(8'-O-4'') Dehydrotrimer of Ferulic Acid. *European Journal of Organic Chemistry*, 1:173 – 179, 2013.
- [18] Florent Allais, Thomas J. L. Pla, and Paul-Henri Ducrot. An Access to Chiral β -Benzyl- γ -butyrolactones and Its Application to the Synthesis of Enantiopure (+)-Secoisolariciresinol, (-)-Secoisolariciresinol, and (-)-Enterolactone. *Synthesis*, 9:1456–1464, 2011.

- [19] Florent Allais, Mahoulo Aouhansou, Amel Majira, and Paul-Henri Ducrot. Asymmetric Total Synthesis of Rugulactone, an α -Pyrone from *Cryptocarya rugulosa*. *Synthesis*, 16:2787–2793, 2010.
- [20] Florent Allais and Paul-Henri Ducrot. Stereoselective total synthesis of (+)-dodoneine. *Synthesis*, 10:1649–1653, 2010.
- [21] Florent Allais, S. Martinet, and Paul-Henri Ducrot. A straightforward and efficient total synthesis of 2-O-feruloyl-L-malate, 2-O-sinapoyl-L-malate and 2-O-5-hydroxyferuloyl-L-malate. *Synthesis*, 21:3571–3578, 2009.
- [22] Michaël Quentin, Valérie Allasia, Anthony Pegard, Florent Allais, Paul-Henri Ducrot, Bruno Favery, Caroline Levis, Sophie Martinet, Clarissa Masur, Michel Ponchet, Dominique Roby, Nikolaus L Schlaich, Lise Jouanin, and Harald Keller. Imbalanced Lignin Biosynthesis Promotes the Sexual Reproduction of Homothallic Oomycete Pathogens. *PLoS Pathogens*, 5(1):e1000264, January 2009.
- [23] Florent Allais, Jean Boivin, and Van Tai Nguyen. Part 2. Mechanistic aspects of the reduction of S-alkyl-thionocarbonates in the presence of triethylborane and air. *Beilstein Journal of Organic Chemistry*, 3:46, December 2007.
- [24] Florent Allais, Marie-Cécile Louvel, and Janine Cossy. A short and highly diastereoselective synthesis of verbalactone. *Synlett*, 3:451–452, 2007.
- [25] Florent Allais and Janine Cossy. *Methanesulfonamide, 1,1,1-trifluoro-N-2-pyridinyl-N-[(trifluoromethyl)sulfonyl]*. Léo Paquette, 2007.
- [26] Cyril Bressy, Florent Allais, and Janine Cossy. A Short and Efficient Synthesis of (+)-Diospongin A. *Synlett*, 20:3455–3456, 2006.
- [27] Eric J. Enholm, Florent Allais, Ryan T. Martin, and Rayane Mohamed. A comparison of a radical polymerization vs romp matrix for molecular imprinting. *Macromolecules*, 39(23):7859–7862, 2006.
- [28] Florent Allais and Janine Cossy. Enantio - and diastereoselective allylmetalations:an easy and efficient access to the ab spiroketal of spongistatin. *Organic Letters*, 8(17):3655–3657, 2006.
- [29] Eric J. Enholm, Florent Allais, and Sebastian Bareyt. Aldehyde–alkene cyclizations via o-stannyl ketyl radicals using sugars as chiral auxiliaries. *Tetrahedron: Asymmetry*, 14(19):2871 – 2874, 2003. Stereoselective radical reactions.
- [30] F. Allais, R. Angelaud, B. Camuzat-Dedenis, K. Julienne, and Y. Landais. Desymmetrization of Cyclopentadienylsilanes through Asymmetric Cyclopropanation. *Eur. J. Org. Chem*, pages 1069– 1073, 2003.
- [31] Eric J. Enholm, Jennifer S. Cottone, and Florent Allais. Highly Diastereoselective 5-Hexenyl Radical Cyclizations with Lewis Acids and Carbohydrate Scaffolds. *Organic Letters*, 3(2):145–147, 2001.

Proceedings/preprints

1. Pion, F., Ducrot, P.-H. and Allais, F., Biorenewable copolyesters derived from a bio-based carbohydrate and lignin, *Polymer Preprints*, 53(2):264, 2012.

2. Allais, F.; Lancelot, A.; Pion, F.; Mazeau, K.; Méry, S. and Ducrot, P.-H. , Synthesis, molecular modeling and characterization of new polyphenolic dendronized polymers via ROMP, *Polymer Preprints*, 52(2):379, 2011.

Book chapters

1. Pion, F.; Reano, A. F.; Oulame, M. Z.; Barbara, I.; Flourat, A. L.; Ducrot, P.-H. and Allais,* F., Chemo-enzymatic Synthesis, Derivatizations, and Polymerizations of Renewable Phenolic Monomers Derived from Ferulic Acid and Biobased Polyols: An Access to Sustainable Copolyesters, Poly(ester-urethane)s, and Poly(ester-alkenamer)s, *Polymer Preprints*, Chapter 4, 41-68 , 2015.

Oral communications

- 2015 **Chemo-enzymatic synthesis and polymerizations of bio-based macrobisphenols derived from ferulic acid : an access to novel renewable copolyesters, polyurethanes, polyphenols and poly(ester-olefin)s**, *ISGC 2015*, 3rd-7th May, La Rochelle (France).
Pion, F.; Reano, A. F.; Oulame, M. Z.; Barbara, I.; Flourat, A. L.; Ducrot, P.-H.; Allais,* F.
- 2015 **Lipase-catalyzed Baeyer-Villiger oxidation of levoglucosenone into (S)--hydroxymethyl-,butenolide and (S)--hydroxymethyl--butyrolactone : Optimization by Response Surface Methodology**, *ISGC 2015*, 3rd-7th May, La Rochelle (France).
Teixeira, A. R. S.; Flourat, A. L.; Peru, A. M. M.; Brunissen, F.; Allais,* F.
- 2015 **Chemo-enzymatic synthesis of key intermediates (S)--hydroxymethyl-,butenolide and (S)--hydroxymethyl--butyrolactone via lipase-mediated Baeyer-Villiger oxidation of levoglucosenone**, *ISGC 2015*, 3rd-7th May, La Rochelle (France).
Flourat, A. L.; Peru, A. M. M.; Teixeira, A. R. S.; Brunissen, F.; Allais*, F.
- 2015 **Chemo-enzymatic synthesis of key intermediates (S)--hydroxymethyl-,butenolide and (S)--hydroxymethyl--butyrolactone via lipase-mediated Baeyer-Villiger oxidation of levoglucosenone**, *249th ACS National Meeting*, 22th-26th Mars, Denver (USA).
Flourat, A. L.; Peru, A. M. M.; Teixeira, A. R. S.; Brunissen, F.;Allais*, F.
- 2014 **Chemo-enzymatic synthesis and properties evaluation of new bio-based macrobisphenols**, *2nd International Conference on Bioinspired and Biobased Chemistry & Materials*, 15th-17th October, Nice (France).
Reano, A. F.; Chérubin, J.; Wang, Q.; Pion, F.; Clément, T.; Maillard, M.-N.; Ducrot, P.-H.; Domenek, S.; Allais*, F.
- 2014 **Chemo-enzymatic synthesis and properties evaluation of new bio-based macrobisphenols derived from ferulic acid** , *248th ACS National Meeting*, 10th-14th August, San Francisco (USA).
Reano, A. F.; Chérubin, J.; Wang, Q.; Pion, F.; Clément, T.; Maillard, M.-N.; Ducrot, P.-H.; Domenek, S.; Allais*, F.
- 2014 **Quick and reliable UV spectroscopy-based free phenol quantification in lignosulfonates**, *248th ACS National Meeting*, 10th-14th August, San Francisco (California).
Broussard, O.; Petit, M.; Silioc, C.; Baumberger, S.; Arnaud, A.; Ducrot, P.-H.; Allais*, F.
- 2013 **Synthesis and polycondensation of bio-based macrodiols containing ferulic acid**, *Biopol2013*, 1st-3rd October, Rome (Italy).
Pion, F.; Ducrot, P.-H.; Allais*, F.

- 2013 **Plant sunscreens in nature: UV and IR spectroscopy of sinapate derivatives**, *International Symposium on Molecular Spectroscopy 68th Meeting*, 17th-21th June, Columbus (USA).
Dean, J. C.; Walsh, P. S.; Zwier, T. S.; Allais*, F.
- 2012 **Design and synthesis of proteins bearing dimers.trimer of ferulic acid: creation of antibodies and immunohistochemistry in plant cells**, *244th ACS National Meeting*, 18th-23th August, Philadelphia (USA).
Mouterde, L. L. L.; Flourat, A. L.; Ducrot, P.-H.; Allais*, F.
- 2012 **Biorenewable copolyesters derived from biobased carbohydrate and lignin**, *244th ACS National Meeting*, 18th-23th August, Philadelphia (USA).
Pion, F.; Ducrot, P.-H.; Allais*, F.
- 2012 **Synthesis and polycondensation of bio-based macrodiols containing ferulic acid**, *Macro 2012: IUPAC World Polymer Congress*, 24th-29th June, Blacksburg (USA).
Pion, F.; Reano, A. F.; Ducrot, P.-H.; Allais*, F.
- 2003 **Diastereo- and Enantioselective Free-Radical Cyclizations of O-Stannyl Ketyls using Chiral Sugars and Lewis Acids**, *225th ACS National Meeting*, 23th-27th March, Blacksburg (USA).
Allais, F.; Enholm*, E. J.
- 2002 **Diastereoselective Free Radical Cyclizations of O-stannyl Ketyls using Lewis Acids**, *223rd ACS National Meeting*, 7th-11th April, Orlando (USA).
Allais, F.; Bareyt, S.; Enholm*, E. J.

Invited seminars

- 2015 **Chemo-enzymatic synthesis and polymerization of bio-based macrobisphenols derived from ferulic acid: an access to novel renewable polymers**, *ICGM (CNRS ENSCM)*, 24th June, Montpellier (France).
- 2014 **Chemo-enzymatic synthesis and polymerization of bio-based macrobisphenols derived from ferulic acid: an access to novel renewable copolyesters, polyurethanes abd polyphenols**, *ICMPE, CNRS UPEC*, 17th November, Thiais (France).
- 2013 **Total synthesis and valorization of naturally occuring phyenylpropanoids**, *Univerzita Palackého*, 23rd April, Olomouc(Czech Republic).
- 2011 **Lignines et tanins: mécanismes de biosynthèse, synthèse totale et valorisation**, *UMR GENIAL, AgroParistech*, 6th December, Massy (France).
- 2009 **Synthesis and studies of dendrimers and polymers with tunable hydrophobic properties and topology: plant cell wall mimetics for in vitro lignification modeling**, *IPCMS-CNRS*, 22nd October, Strasbourg (France).
- 2009 **Total synthesis of 2-O-feruloyl-L-malate, 2-O-sinapoyl-L-malate and 2-O-5-hydroxyferuloyl-L-malate and their impacts on plant defense mechanisms**, *IPCMS-CNRS*, 22nd October, Strasbourg (France).

Invited conferences and keynote lectures

- 2015 **Chemo-enzymatic synthesis and polymerizations of bio-based bisphenols derived from lignin: an access to novel renewable alternating aromatic/aliphatic polymers**, *Biopolymers and Bioplastics*, 10th - 12th August, San Francisco (USA).
Allais, F.

- 2014 **Synthesis, characterization, biological properties and polymerizations of new bio-based macrobisphenols derived from ferulic acid**, *XVth Florida Heterocyclic and Synthetic Chemistry Symposium*, 2nd - 5th March, Gainesville (USA).
Pion, F.; Reano, A. F.; Wang, Q.; Clément, T.; Maillard, M.-N.; Domenek, S.; Ducrot, S.; Allais, F.
- 2009 **Total synthesis of 2-O-feruloyl-L-malate, 2-O-sinapoyl-L-malate and 2-O-5-hydroxyferuloyl-L-malate and their impacts on plant defense mechanisms**, *XIth Florida Heterocyclic and Synthetic Chemistry Symposium*, 6th - 11th March, Gainesville (USA).
Allais, F. and Ducrot, P.-H.

Posters

- 2015 **Chemo-enzymatic synthesis of key intermediates (S)--hydroxymethyl-, -butenolide and (S)--hydroxymethyl--butyrolactone via lipase-mediated Baeyer-Villiger oxidation of levoglucosenone**, *RRB-11*, 3rd - 5th June, York (UK).
Flourat, A. L.; Peru, A. M. M.; Teixeira, A. R. S.; Brunissen, F.; Allais, F.
- 2015 **Chemo-enzymatic synthesis and polymerizations of bio-based macrobisphenols derived from ferulic acid: an access to novel renewable copolyesters, polyurethanes, polyphenols and poly(ester-olefin)s**, *RRB-11*, 3rd - 5th June, York (UK).
Pion, F.; Reano, A. F.; Oulame, M. Z.; Barbara, I.; Flourat, A. L.; Ducrot, P.-H.; Allais, F.
- 2015 **Renewable poly(ester-olefin)s derived from ferulic acid, biobased diols and fatty acid derivatives via ADMET**, *ISGC 2015*, 3rd - 7th May, La Rochelle (France).
Barbara, I.; Flourat, A. L.; Ducrot, P.-H.; Allais, F.
- 2015 **Synthesis of syringaresinol via an optimized enzymatic oxidation of sinapyl alcohol**, *ISGC 2015*, 3rd - 7th May, La Rochelle (France).
Jaufurally, A. S.; Ducrot, P.-H.; Allais, F.
- 2015 **Determination of antioxidant activity of new biobased macrobisphenols**, *ISGC 2015*, 3rd - 7th May, La Rochelle (France).
Reano, Armando F.; Domenek, Sandra; Allais, Florent
- 2015 **Biobased 3-hydroxypropionic acid production and extraction starting from glycerol: towards a sustainable integrated process**, *ISGC 2015*, 3rd - 7th May, La Rochelle (France).
Burgé, Grégoire; Chemarin, Florian; Saulou, Claire; Moussa, Marwen; Allais, Florent; Athes, Violaine; Spinnler, Eric
- 2015 **Renewable poly(ester-olefin)s derived from ferulic acid, biobased diols and fatty acid derivatives via ADMET**, *249th ACS National Meeting*, 22th - 26th Mars, Denver (USA).
Barbara, I.; Flourat, A. L.; Ducrot, P.-H.; Allais, F.
- 2014 **Quick and reliable UV spectroscopy-based free phenol quantification in lignosulfonates**, *248th ACS National Meeting*, 10th - 14th August, San Francisco (USA).
Broussard, O.; Petit, M.; Silioc, C.; Baumberger, S.; Arnaud, A.; Ducrot, P.-H.; Allais, F.
- 2013 **Synthesis and evaluation of antiradical activity of new bio-based macrobisphenols derived from ferulic acid**, *Biopolymers2013*, 4th - 6th December, Nantes (France).
Reano, A. F.; Pion, F.; Domenek, S.; Allais, F.
- 2013 **Synthesis and evaluation of antiradical activity of new bio-based macrobisphenols derived from ferulic acid**, *Biopol2013*, 1st - 3rd October, Rome (Italy).
Reano, A. F.; Pion, F.; Domenek, S.; Allais, F.

- 2012 **Synthèse de dimères d'acide férulique et leur couplage sur protéine, production d'anticorps correspondants pour l'immunohistochimie des parois végétales**, *Journées jeunes chercheurs de la Société de Chimie Thérapeutiques*, 2nd - 3rd February, Romainville (France).
Mouterde, L.; Flourat, A.; Ducrot, P.-H.; Allais,* F.
- 2011 **Synthesis, molecular modeling and characterization of polyphenolic dendronized polymers via ROMP**, *GFP 2011 - 40ème Colloque National*, 21st - 24th November, Pau (France).
Allais,* F.; Lancelot, A.; Pion, F.; Mazeau, K.; Méry, S. and Ducrot,* P.- H.
- 2011 **Synthesis, molecular modeling and characterization of polyphenolic dendronized polymers via ROMP**, *242th ACS National Meeting*, 27th August - 3rd September, Denver (USA).
Allais,* F.; Lancelot, A.; Pion, F.; Mazeau, K.; Méry, S. and Ducrot,* P.- H.
- 2011 **Total synthesis of 2-O-feruloyl-L-malate, 2-O-sinapoyl-L-malate and 2-O-5-hydroxyferuloyl-L-malate and their impacts on plant defense mechanisms**, *242th ACS National Meeting*, 27th August - 3rd September, Denver (USA).
Allais,* F.; Martinet, S. and Ducrot, P.-H.
- 2011 **Access to chiral β -benzyl- γ -butyrolactones and its application to the synthesis of enantiopure (\pm)- secoisolariciresinols and (-)-enterolactone**, *242th ACS National Meeting*, 27th August - 3rd September, Denver (USA).
Allais,* F.; Pla, T. J. and Ducrot,* P.-H.
- 2011 **New insights in the mechanism of the enzymatic formation of lignin dehydrogenative polymers (DHP)**, *242th ACS National Meeting*, 27th August - 3rd September, Denver (USA).
Cottyn, B.; Waffo-Teguo, P.; Allais, F. and Ducrot,* P.-H.
- 2010 **Asymmetric total synthesis of (+)-dodoneine, a natural phenylpropanoid with potent biological activities**, *Journées de Chimie Organique*, 21st - 23rd September, Palaiseau (France).
Allais,* F. and Ducrot, P.-H.
- 2010 **A new access to chiral β -benzyl- γ -butyrolactones and its application to the synthesis of enantiopure (\pm)-secoisolariciresinols and (-)-enterolactone**, *Journées de Chimie Organique*, 21st - 23rd September, Palaiseau (France).
Allais,* F.; Pla, T. J. and Ducrot,* P.-H.
- 2010 **Asymmetric total synthesis of rugulactone, a α -pyrone form *Cryptocarya rugulosa***, *Journées de Chimie Organique*, 21st - 23rd September, Palaiseau (France).
Allais,* F.; Ahouansou, M.; Majira, A. and Ducrot, P.-H.
- 2010 **Synthesis and studies of dendrimers and polymers with tunable hydrophobic properties and topology: plant cell wall mimetic for *in vitro* lignification modeling**, *Journées de Chimie Organique*, 21st - 23rd September, Palaiseau (France).
Allais,* F.; Lancelot, A.; Mazeau, K.; Méry, S. and Ducrot, P.-H.
- 2010 **One electron vs two electrons transfer during chemical and enzymatic oxidation of phenolics; impact on lignification**, *Journées de Chimie Organique*, 21st - 23rd September, Palaiseau (France).
Cottyn, B.; Ghidouche, S.; Kollmann, W.; Méchin, V.; Baumberger, S.; Allais, F. and Ducrot,* P.-H.

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