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LIST OF PUBLICATIONS

PEER-REVIEWED ARTICLES

63. [Epoxidation of Electron-Deficient Alkenes Triggered by Visible-Light-Driven Phenol Photooxidation for the Synthesis of Epoxy Dienone Products](#)
L. Péault, S. Rochelle, A. Planchat, P. Nun, E. Le Grogneec, V. Coeffard, **2023**, 365, 194-200
62. [Atom Economical Photocatalytic Oxidation of Phenols and Site Selective Epoxidation Towards Epoxyquinols.](#)
L. Péault, A. Planchat, P. Nun, E. Le Grogneec, V. Coeffard, *J. Org. Chem.* **2021**, 86, 18192-18203
61. [A Versatile Stereocontrolled Synthesis of 2-Deoxyiminosugar C-Glycosides and their Evaluation as Glycosidase Inhibitors.](#)
A. Lumbroso, C. Berthonneau, I. Beaudet, J.-P. Quintard, A. Planchat, M. I. Garcia-Moreno, C. Ortiz-Mellet, E. Le Grogneec, *Org. Biomol. Chem.* **2021**, 19, 1083-1099.
60. [Synthesis of 5-Substituted 1H-tetrazoles from nitriles by Continuous Flow. Application to the Synthesis of Valsartan.](#)
F. Carpentier, F.-X. Felpin, F. Zammattio, E. Le Grogneec, *Org. Process Res. Dev.* **2020**, 24, 752-761.(doi)
59. [Sn-Li Transmetalation of \$\alpha\$ -Aminoorganostannanes for the Stereoselective Synthesis of Substituted Dehydropiperidines and Dehydroazepanes](#)
A. Lumbroso, I. Beaudet, J.-P. Quintard, C. Fraisse, N. Galland, L. Toupet, E. Le Grogneec, *Adv. Synth. Cat.*, **2019**, 316, 3777-3786.
58. [Multicatalytic Dearomatization of Phenols into Epoxyquinols via Photooxygenation Process.](#)
L. Péault, P. Nun, E. Le Grogneec, V. Coeffard, *Chem. Commun.* **2019**, 55, 7398-7401.
57. [Fabrication of Robust Spatially-Resolved Photochromic Patterns on Cellulose Papers by Covalent Printing for Anticounterfeiting Applications.](#) G. Bretel, E. Le Grogneec, D. Jacquemin, T. Hirose, K. Matsuda, F.-X. Felpin, *ACS Appl. Polym. Mater.*, **2019**, 1, 1240-1250.

56. [Tin-Catalyzed Synthesis of 5-Substituted 1H-Tetrazoles from Nitriles: Homogeneous and Heterogeneous Procedures](#)
J.-M. Chrétien, G. Kerric, F. Zammattio, N. Galland, M. Paris, J.-P. Quintard, E. Le Grogneec, *Adv. Synth. Cat.*, **2019**, 361, 747-757.
55. [An autonomous Self-Optimizing Flow Reactor for the Synthesis of Natural Product Carpanone](#)
D. Cortes-Borda, E. Wimmer, B. Gouilleux, E. Barre, N. Oger, L. Goularnaly, L. Peault, B. Charrier, C. Truchet, P. Giraudeau, M. Rodriguez-Zubiri, E. Le Grogneec, F.-X. Felpin *J. Org. Chem.* **2018**, 83, 14286-14299.
54. [Hydrophobic Covalent Patterns on Cellulose Paper through PhotoThiol-X Ligations.](#)
G. Bretel, J. Rull-Barrull, M. C. Nongbe, J.-P. Terrier, E. Le Grogneec, F.-X. Felpin, *ACS Omega* **2018**, 3, 9155-9159.
53. [Cellulose Paper grafted with polyamines as powerful absorbent for heavy metals.](#)
M. C. Nongbe, G. Bretel, T. Ekou, L. Ekou, B. K. Yao, E. Le Grogneec, F.-X. Felpin, *Cellulose* **2018**, 25, 4043-4055.
52. [Cellulose Paper Azide as a Molecular Platform for Versatile Click Ligations - Application to the Preparation of Hydrophobic Paper Surface.](#)
M. C. Nongbe, G. Bretel, L. Ekou, T. Ekou, M. Robitzer, E. Le Grogneec, F.-X. Felpin, *Cellulose* **2018**, 25, 1395-1411.
51. [Photoresponsive Cellulose Paper as Molecular Printboard for Covalent Printing.](#)
J. Rull-Barrull, M. d'Halluin, E. Le Grogneec, F.-X. Felpin, *J. Mater. Chem C.* **2017**, 5, 5154-5162.
50. [Biodiesel production from palm oil using sulfonated graphene catalyst.](#)
M. C. Nongbe, T. Ekou, L. Ekou, K. B. Yao, E. Le Grogneec, F.-X. Felpin, *Renewable Energy*, **2017**, 106, 135-141.
49. [Chemically modified cellulose filter paper for heavy metal remediation in water](#)
M. d'Halluin, J. Rull-Barrull, G. Bretel, C. Labrugère, E. Le Grogneec, F.-X. Felpin, *ACS Sustainable Chem. Eng.* **2017**, 5, 1965-1973.
48. [A highly selective colorimetric and fluorescent chemosensor for Cr²⁺ in aqueous solutions.](#)
J. Rull-Barrull, M. d'Halluin, E. Le Grogneec, F.-X. Felpin, *Tetrahedron Lett.* **2017**, 58, 505-508.
47. [Graphene-Catalyzed Transacetalisation of Diols under Acid-free Conditions](#)
M. C. Nongbe, N. Oger, T. Ekou, L. Ekou, Y. K. Benjamin, E. Le Grogneec, F.-X. Felpin *Tetrahedron Lett.*, **2016**, 57, 4637-4639.
46. [Harnessing the dual properties of thiol-grafted cellulose paper for click reactions: powerful reducing agent and adsorbent for Cu.](#)
J. Rull-Barrull, M. d'Halluin, E. Le Grogneec, F.-X. Felpin, *Angew. Chem. Int. Ed.* **2016**, 55, 13549-13552.
45. [Stereoselective Synthesis of Stannylated Dehydropiperidines and Dehydroazepanes.](#)
A. Lumbroso, V. Coeffard, D. Gatineau, S. Stecko, I. Beaudet, J.-P. Quintard, E. Le Grogneec, *Eur. J. Org. Chem.* **2016**, 5146-5159.
44. [Writing and erasing hidden optical information on covalently modified cellulose paper](#)
M. d'Halluin, J. Rull-Barrull, E. Le Grogneec, D. Jacquemin, F.-X. Felpin, *Chem. Commun.* **2016**, 52, 7672-7675.

43. [A paper-based biomimetic device for the reduction of Cu\(II\) to Cu\(I\) - Application to the sensing of Cu\(II\)](#), J. Rull-Barrull, M. d'Halluin, E. Le Grogneq, F.-X. Felpin, *Chem. Commun.* **2016**, 52, 6569-6572.
42. [Chemically-Modified Cellulose Paper as Smart Sensor Device for Colorimetric and Optical Detection of Hydrogen Sulfate in Water](#), J. Rull-Barrull, M. d'Halluin, E. Le Grogneq, F.-X. Felpin, *Chem. Commun.*, **2016**, 52, 2525-2528.
- 41 - [Graphene-Promoted Acetalization of Glycerol under Acid-Free Conditions](#), N. Oger, Y. Lin, E. Le Grogneq, F. Rataboul, F.-X. Felpin, *Green Chem.*, **2016**, 18, 1531-1537.
- 40 - [Practical and Scalable synthesis of Sufonated Graphene](#), N. Oger, Y. F. Lin, C. Labrugère, E. Le Grogneq, F. Rataboul, F.-X. Felpin, *Carbon* **2016**, 96, 342-350.
- 39 - [Methodologies Limiting or Avoiding Pollution by Organotin Residues when Using Organotin Reagents in Organic Synthesis](#), E. Le Grogneq, J.-M. Chretien, F. Zammattio, J.-P. Quintard, *Chem. Rev.* **2015**, 115, 10207-10260.
- 38 - [Graphite-supported ultra-small copper nanoparticles - Preparation, characterization and catalysis applications](#), M. d'Halluin, T. Mabit, N. Fairley, V. Fernandez, M. B. Gawande, E. Le Grogneq, F.-X. Felpin, *Carbon* **2015**, 93, 974-983.
- 37 - [Palladium Nanoparticles Supported on Sulfonic Acid-Functionnalized Silica as Trifunctionnal Heterogeneous Catalysts for Heck and Suzuki Reactions](#), N. Oger, E. Le Grogneq, F.-X. Felpin, *ChemCatChem* **2015**, 7, 2085-2094.
- 36 - [Handling Diazonium Salts in Flow for Organic and Material Chemistry](#), N. Oger, E. Le Grogneq, F.-X. Felpin, *Org. Chem. Frontiers*, **2015**, 2, 590-614.
- 35 - [Using Aryl Diazonium Salts in Palladium-Catalyzed Reactions under Safer Conditions](#), N. Oger, M. d'Halluin, E. Le Grogneq, F.-X. Felpin, *Org. Process. Res. Dev.* **2014**, 18, 1786-1801.
- 34 - [Heck-Matsuda Reaction Catalyzed by Heterogeneous Palladium Catalysts](#) N. Oger, E. Le Grogneq, F.-X. Felpin, *Curr. Org. Chem.* **2015**, 19(8), 695-707.
- 33 - [Continuous-Flow Heck-Masuda Reaction : Homogeneous versus Heterogeneous Palladium Catalysts](#), N. Oger, E. Le Grogneq, F.-X. Felpin, *J. Org. Chem.* **2014**, 79, 8255-8262.
- 32 - [Heck-Matsuda Arylation of Olefins Through a Bicycatalytic Approach: Improved Procedures and Rationalization](#), N. Oger, F. Le Callonnec, D. Jacquemin, E. Fouquet, E. Le Grogneq, F.-X. Felpin, *Adv. Synth. Cat.* **2014**, 356, 1065-1071.
- 31- [Copper-catalyzed free-radical C-H arylation of Pyrroles](#), A. Honraedt, M.-A. Raux, E. Le Grogneq, D. Jacquemin, F.-X. Felpin, *Chem. Commun.* **2014**, 5236-5238.
- 30- [C-H Arylation of Benzoquinone in Water through Anilines Activation –Synergistic Effect of Graphite-Supported Copper Oxide Nanoparticles](#), A. Honraedt, F. Le Callonec E. Le Grogneq, V. Fernandez, F.-X. Felpin, *J. Org. Chem.* **2013**, 78, 4604-4609.
- 29- [Stereodivergent Synthesis of Iminosugars from Stannylated Derivatives of \(S\)-Vinylglycinol](#), A. Lumbroso, I. Beaudet, L. Toupet, E. Le Grogneq, J.-P. Quintard *Org. Lett.* **2013**, 15, 160-163.

- 28- [Electrochemical Cleavage of Sulfonamides : An Efficient and Tunable Strategy to Prevent \$\beta\$ -Fragmentation and Epimerization](#) P. Viaud, V. Coeffard, C. Thobie-Gautier, I. Beaudet, N. Galland, J.-P. Quintard, E. Le Grogneq, *Org. Lett.*, **2012**, 14, 942–945.
- 27 - [Syn-Allylstannation of *N*-Acylium Intermediates by \$\gamma\$ -Silyloxyallyltins: Reaction for Diastereoselective Synthesis of Polyhydroxypiperidines and Polyhydroxyazepanes](#) F. Chevallier, A. Lumbroso, I. Beaudet, E. Le Grogneq, L. Toupet, J.-P. Quintard *Eur. J. Org. Chem.*, **2011**, 4133-4144.
- 26 - [Preparation of Enantiomerically Enriched \$\alpha\$ -Aminoorganostannanes and their Applications in Stereoselective Synthesis.](#) V. Coeffard, I. Beaudet, J.-P. Quintard, E. Le Grogneq, *Chirality*, **2010**, 864-869.
- 25 - [An Efficient and Large-Scale Synthesis of *N*-\(benzyloxycarbonyl\)- and *N*-\(methyloxycarbonyl\)-\(*S*\)-Vinyl-glycinol.](#) A. Lumbroso, V. Coeffard, E. Le Grogneq, I. Beaudet, J.-P. Quintard *Tetrahedron Lett.*, **2010**, 51, 3226-3228.
- 24 - [Synthesis, Characterization and Primary Evaluation of the Synthetic Efficiency of Supported Vinyltins and Allyltins.](#) G. Kerric, E. Le Grogneq, V. Fargeas, F. Zammattio, J.-P. Quintard, M. Biesemans, R. Willem *J. Organomet. Chem.* **2010**, 695, 1414-1424.
- 23 - [Addition of \$\gamma\$ -Silyloxyallyltins on Ethyl Glyoxylates: Evaluation of the Influence of the Experimental Conditions on the Stereochemical Course of the Reaction.](#) A. Lumbroso, P. Kwiatkowski, A. Blonska, E. Le Grogneq, I. Beaudet, J. Jurczak, S. Jarosz, J.-P. Quintard *Tetrahedron*, **2010**, 66, 1570-1580.
- 22 - [Use of Polymer-Supported Phenyltin as Clean and Recyclable Reagent for the Creation of Aryl-Aryl or Aryl-Heteroaryl bonds via Stille Cross-coupling Reactions.](#) G. Kerric, E. Le Grogneq, F. Zammattio, M. Paris, J.-P. Quintard *J. Organomet. Chem.* **2010**, 695, 103-110.
- 21 - [Microwave-assisted Synthesis of \$\alpha\$ -Ethoxycarbamates.](#) A. Lumbroso, F. Chevallier, I. Beaudet, J.-P. Quintard, T. Besson, E. Le Grogneq *Tetrahedron*, **2009**, 65, 9180-9187.
- 20 - [Synthesis of Highly Enantioenriched Chiral \$\alpha\$ -Aminoorganotins via Diastereoselective Ring-Opening of Chiral *N*-\(Arenesulfonyl\) 2-Tributylstannyloxazolidines.](#) V. Coeffard, E. Le Grogneq, I. Beaudet, M. Evain, J.-P. Quintard *J. Org. Chem.* **2009**, 74, 5822-5838.
- 19 - [Preparation and Transmetalation of Enantioenriched \$\alpha\$ -Aminoorganostannanes Derived from *N*-Boc Phenylglycinol : Application to the Synthesis of Alafosfalin,](#) V. Coeffard, I. Beaudet, M. Evain, E. Le Grogneq, J.-P. Quintard *Eur. J. Org. Chem.*, **2008**, 3344-3351.
- 18- [Mild Electrochemical Deprotection of *N*-Phenylsulfonyl *N*-substituted Amines Derived from \(*R*\)-Phenylglycinol,](#) V. Coeffard, C. Thobie-Gautier, E. Le Grogneq, J.-P. Quintard *Eur. J. Org. Chem.*, **2008**, 383-391.
- 17 - [Evaluation of polymer-supported vinyltins reagents in the Stille cross-coupling reaction,](#) J.-M. Chrétien, A. Mallinger, F. Zammattio, E. Le Grogneq, M. Paris, G. Montavon, J.-P. Quintard *Tetrahedron Lett.*, **2007**, 48, 1781-1785. **Article Highlighted in Synfacts 2007, 0665-0665**
- 16 - [Precursors of Chiral \$\alpha\$ -Amino Anions : An Improved Synthesis of Chiral *N*-\(\$\alpha\$ -Tributylstannyl-organo\)oxazolidin-2-ones Derived from \(*R*\) or \(*S*\)-Phenylglycinol,](#) V. Coeffard, E. Le Grogneq, I. Beaudet, M. Lepeltier, V. Léat-Crest, J.-P. Quintard *Synthesis*, **2006**, 4151-4158.

- 15 - Diastereoselective synthesis of chiral α -aminoorganotributyltins via ring-opening of 2-tributylstannyloxazolidines, V. Coeffard, J.-C. Cintrat, E. Le Grogneq, I. Beaudet, J.-P. Quintard, *J. Organomet. Chem.*, **2006**, 691, 1488-1497.
- 14 - Preparation of Allyltin Reagents Grafted on Solid Support: Clean and Easy Recyclable Reagents for Allylation of Aldehydes, J.-M. Chrétien, F. Zammattio, D. Gauthier, E. Le Grogneq, M. Paris, J.-P. Quintard, *Chem. Eur. J.*, **2006**, 12, 6816-6828. **Article Highlighted in Synfacts 2006, 1299-1299**
- 13 - Polymer-Supported Organotin Reagents for Regioselective Halogenation of Aromatic Amines, J.-M. Chrétien, F. Zammattio, E. Le Grogneq, M. Paris, B. Cahingt, G. Montavon, J.-P. Quintard, *J. Org. Chem.* **2005**, 70, 2870-2873. **Article Highlighted in Synfacts 2005, 0079-0079**
- 12 - Preparation of gamma-siloxyallyltributylstannanes and their use in the synthesis of (\pm)-1-deoxy-6,8a-di-epi-castanospermine, F. Chevallier, E. Le Grogneq, I. Beaudet, F. Fliegel, M. Evain, J.-P. Quintard, *Org. Biomol. Chem.* **2004**, 2, 3128-3133.
- 11 - Identification of *cis* and *trans* Chiral 2-Stannyloxazolidines on the Basis of their NMR Spectra and of their Solid State Structures, J.-C. Cintrat, V. Léat-Crest, J.-L. Parrain, E. Le Grogneq, I. Beaudet, J.-P. Quintard, *Eur. J. Org. Chem.*, **2004**, 4268-4279.
- 10 - Preparation of Chiral 2-Stannyloxazolidines and First Considerations on the Transacetalisation Reaction Mechanism, J.-C. Cintrat, V. Léat-Crest, J.-L. Parrain, E. Le Grogneq, I. Beaudet, J.-P. Quintard, *Eur. J. Org. Chem.*, **2004**, 4251-4267.
- 9 - Allylstannylation of *N*-Acyyliminium Intermediates : A Possible Method for the Stereocontrolled Synthesis of Polyhydroxypiperidines, F. Chevallier, I. Beaudet, E. Le Grogneq, L. Toupet, J.-P. Quintard, *Tetrahedron Lett.*, **2004**, 45, 761-764.
- 8 - *N*-Boc-2-Stannyloxazolidines Derived from (*R*)-Phenylglycinol: Preparation, Transmetalation and Use as Precursors of Enantioenriched α -Aminoalkyltrioorgano-stannanes, J.-C. Cintrat, V. Léat, J.-L. Parrain, E. Le Grogneq, I. Beaudet, L. Toupet, J.-P. Quintard, *Organometallics*, **2004**, 23, 943-945.
- 7 - Interaction of Half-Sandwich Alkylmolybdenum(III) Complexes with $B(C_6F_5)_3$. The X-ray Structure of $[CpMo(\eta^4-C_4H_6)(\mu-Cl)(\mu-CH_2)(O)MoCp][CH_3B(C_6F_5)_3]$, E. Le Grogneq, R. Poli, P. Richard, R. Llusar, S. Uriel, *J. Organomet. Chem.*, **2001**, 640, 113-120.
- 6 - Radical Polymerization of Styrene controlled by Half-Sandwich Mo(III)/Mo(IV) Couples: all Basic Mechanisms are Possible E. Le Grogneq, J. Claverie, R. Poli, *J. Am. Chem. Soc.*, **2001**, 23, 9513-9524.
- 5 - Diene-Containing Half-Sandwich Mo(III) Complexes as Single-Site Ethylene Polymerization Catalysts. Experimental and Theoretical Study, E. Le Grogneq, R. Poli, *Chem. Eur. J.*, **2001**, 7, 4572-4583.
- 4 - A Reinvestigation of Compound $CpMo(PMe_3)_2(CH_3)_2$: Alkylation by Single Electron Transfer and Radical Addition ? E. Le Grogneq, P. Richard, R. Poli, *J. Chem. Soc. Dalton Trans.*, **2001**, 2251-2257.
- 3 - Synthesis, Characterization, and Molecular and Electronic Structure of $CpMoCl_2(\eta^2-R^1C\equiv CR^2)$ ($R^1, R^2 = Ph, Et, Me$) : A New Class of Half-Sandwich 17-electron Molybdenum (III) Organometallics, E. Le Grogneq, P. Richard, R. Poli, *J. Chem. Soc. Dalton Trans.*, **2000**, 1499-1506.
- 2 - Dialkyl(butadiene)cyclopentadienylmolybdenum (III) complexes. Synthesis, Characterization and Reactivity, E. Le Grogneq, P. Richard, R. Poli, *Organometallics*, **2000**, 19, 3842-3853.

- 1 - [Stable 17 electron Mo\(III\) Complexes Containing Alkyl ligands](#) E. Le Grogneq, R. Poli, L.S. Wang, *Inorg. Chem. Commun.*, **1999**, 2, 95-97.

BOOK CHAPTERS

- 1- [Stoichiometric Auxiliary Ligands For Metals and Main Group Elements | Ligands for Tin and Stannanes](#). E. Le Grogneq, J.-P. Quintard *in* Comprehensive Chirality – In: Carreira E. M. and Yamamoto H. (eds.) Comprehensive Chirality, **2012**, Volume 3, pp. 751-779. Amsterdam: Elsevier
- 2- [New Trends in the Synthesis of Solid-Supported Organotin Reagents and Interest of their Use in Organic Synthesis in a Concept of Green Chemistry](#) J.-M. Chrétien, J. D. Kilburn, F. Zammattio, E. Le Grogneq, J.-P. Quintard In: Tin Chemistry - Fundamentals, Frontiers and Applications, A. Davies, M. Gielen, K. Pannell, E. Tiekink (eds), Wiley, **2008**, 607-621

PATENTS

6. F.-X. Felpin, G. Bretel, E. Le Grogneq, M. Denis
[Chemical Functionalization of Cellulosic Materials with Diazo Compounds](#)
Date de dépôt 19.05.20, Application FR 20175498
5. G. Bretel, E. Le Grogneq, F.-X. Felpin
[Procédé d'impression covalente de photochromes sur un support cellulosique](#)
Date of filling 4.01.19, Application FR1900088
4. G. Bretel, F.-X. Felpin, E. Le Grogneq
[Matériau Fonctionnalisé dérivé de la cellulose](#)
Date of filling 08.03.18, Application FR 1800201A
Published as FR3078705A1 ; WO2019171005A1
3. M. d'Halluin, F.-X. Felpin, E. Le Grogneq, J. Rull-Barrull
[Matériau cellulosiques fonctionnalisés](#)
Date of filling 03.01.17, Application FR 1750043A
Published as FR3061491A1 ; WO2018127654A1
2. M. d'Halluin, F.-X. Felpin, D. Jacquemin, E. Le Grogneq, J. Rull-Barrull,
[Méthode d'écriture réversible d'un motif sur un élément cellulosique et produit cellulosique associé](#)
Date of filling 10.02.16, Application FR 1600227A
Published as FR3047572A1 ; FR304757B1
1. J.-M. Chrétien, G. Kerric, F. Zammattio, J.-P. Quintard, E. Le Grogneq
[Supported alkoxylated organotin reagent, preparation and use for heterogeneous-phase synthesis of tetrazoles](#)
Date of filling 30.06.2011, FR1102058A
WO 2013001235A1
EP2726515A1 ; EP2726515B1; FR2977253A1; FR2977253B1; WO2013001235A1; US2014206825A1; US9724673B2.