

Bibliographic List – COULEMBIER OLIVIER, Prof. Dr.

Personal Scientific Information

- *h* factor: **41**
- cited documents: **161**
- total number of citations: **6562**
- average citations per article: **40.7**

From Scopus data base

- *h* factor: **45**
- *i-10* factor: **128**
- total number of citations: **8256**
- average citations per article: **51.3**

From Google Scholar data base

June 2026

- NEWSLETTER -

2020 (1)

Rosica Mincheva, Hazar Guemiza, Chaimaa Hidan, Sébastien Moins, Olivier Coulembier, Philippe Dubois, Fouad Laoutid, “Développement d’un poly(lactide) intrinsèquement ignifugé par voie réactive”, PolyFlame, **2020**, Newsletter 18, 3-6.

- POPULAR SCIENCE ARTICLES -

2025 (1)

Olivier Coulembier, “Recycler les déchets plastiques et le CO₂ en nouveaux matériaux : une piste sérieuse pour le climat ?”, The Conversation France, **2025**, April 21.

- PATENTS -

2010 (1)

Method of Ring-Opening Polymerization, and Related Compositions and Articles.

Publication number: 20100305300

Type: Application

Filed: June 1, 2009

Publication date: December 2, 2010

Applicant: International Business Machines Corporation

Inventors: Olivier Coulembier, James L. Hedrick, Alshakim Nelson, Julia E. Rice, Daniel P. Sander

2013 (1)

Organic Field-Effect Transistor Device

Publication number: 20130270533

Type: Application

Filed: April 11, 2013

Publication date: October 17, 2013

Applicant: ACREO SWEDISH ICT AB

Inventors: Xavier CRISPIN, Magnus BERGGREN, Hiam SINNO, Ari LAIHO, Olivier COULEMBIER, Philippe DUBOIS, Ha Tran NGUYEN

2015 (1)

Catalyzed Polymerization of Cyclic Esters and Cyclic Carbonates

Publication number: 20150126703

Type: Application

Filed: November 4, 2014

Publication date: May 7, 2015

Applicant: Université de Mons

Inventors: Philippe Ghilain Dubois, Brieuc Guillerm, Olivier Coulembier

2016 (1)

Method of Ring-Opening Polymerization, and Related Compositions

Patent number: 9388275

Type: Grant

Filed: June 1, 2009

Date of Patent: July 12, 2016

Assignees: INTERNATIONAL BUSINESS MACHINES CORPORATION, THE UNIVERSITY OF MONS-HAINAUT

Inventors: Olivier Coulembier, James L. Hedrick, Alshakim Nelson, Julia E. Rice, Daniel P. Sanders

2025 (1)

Method of manufacturing a halogenated polyolefin

Patent number: GB 2410109.9

Type: Pending Application

Filed: July 11, 2024

Date of Patent: July 4, 2025

Assignees: Université de Mons

Inventors: Amna Ben Ayed, Juliette Delcorps, Olivier Coulembier

- BOOK CHAPTERS -

2009 (1)

- (1) **Handbook of Ring-Opening Polymerization.** Chap. 9, Polyester from β -Lactones. Edited by Dubois Ph., Coulembier O. and Raquez J.-M., Wiley-VCH, Weinheim, 2009.

2012 (1)

- (2) **Polymer Science: A comprehensive Reference.** Chap. 4.31, Ring-Opening Polymerization of Cyclic Esters: Industrial Synthesis, Properties, Applications, and Perspectives. Edited by Matyjaszewski, K. and Möller, M., Elsevier BV, Amsterdam, Vol.4, pp. 761-778, 2012.

2018 (1)

- (3) **Novel Nanoscale Hybrid Materials.** Chap. 4, Functionalization of P3HT-based Hybrid Materials for Photovoltaic Applications. Edited by Bhanu P.S. Chauhan, First Edition, 2018 John Wiley & Sons, pp 107-177

2019 (1)

- (4) **Organic Catalysis for Polymerisation.** Chap. 1, Nucleophilic Catalysts and Organocatalyzed Zwitterionic Ring-Opening Polymerization of Heterocyclic Monomers. Edited by A. Dove, H. Sardon and Stefan Nauman, The Royal Society of Chemistry, Cambridge, 2019, pp. 1-36

- SCIENTIFIC PAPERS -

2002 (1)

- (1) O. Coulembier, Ph. Degée, S. Cammas-Marion, Ph. Guérin, Ph. Dubois, « *New Amphiphilic Poly[(R,S)- β -malic acid-b- ϵ -caprolactone] Diblock Copolymers by Combining Anionic and Coordination-Insertion Ring-Opening Polymerization* », *Macromolecules*, **2002**, 35, 9896-9903.

2003 (1)

- (2) O. Coulembier, Ph. Degée, Ph. Guérin, Ph. Dubois, « *Tensioactive Properties of Poly[(R,S)- β -malic acid-b- ϵ -caprolactone] Diblock Copolymers in Aqueous Solution* », *Langmuir*, **2003**, 19, 8661-8666.

2004 (1)

- (3) O. Coulembier, Ph. Degée, Ch. Barbaud, Ph. Guérin, Ph. Dubois, « *New Amphiphilic graft copolymer based on poly(β -malic acid) : synthesis and characterization* », *Polymer Bulletin*, **2004**, 51, 365-372.

2005 (3)

- (4) O. Coulembier, Ph. Degée, P. Gerbaux, P. Wantier, Ch. Barbaud, R. Flammang, Ph. Guérin, Ph. Dubois, « *Synthesis of Amphiphilic Poly((R,S)- β -malic acid)-graft-poly(ϵ -caprolactone): « Grafting From » and « Grafting Through » Approaches* », *Macromolecules*, **2005**, 38, 3141-3150.
- (5) J. Rieger, O. Coulembier, Ph. Dubois, K.V. Bernaerts, F.E. Du Prez, R. Jérôme, C. Jérôme, « *Controlled Synthesis of an ABC Miktoarm Star-Shaped Copolymer by Sequential Ring-Opening Polymerization of Ethylene Oxide, Benzyl- β -Malolactonate, and ϵ -Caprolactone* », *Macromolecules*, **2005**, 38, 10650-10657.
- (6) O. Coulembier, A.P. Dove, R.C. Pratt, A.C. Sentman, D.A. Culkin, L. Mespouille, Ph. Dubois, R.M. Waymouth, J.L. Hedrick, « *Latent Thermally Activated Organic Catalysts for the On-Demand Living Polymerization of Lactide* », *Angew. Chem. Int. Ed.*, **2005**, 44, 2-6.

2006 (5)

- (7) O. Coulembier, B.G.G. Lohmeijer, A.P. Dove, R.C. Pratt, D.A. Culkin, L. Mespouille, S.J. Benight, Ph. Dubois, R.M. Waymouth, J.L. Hedrick, "Alcohol Adducts of *N*-Heterocyclic Carbenes: Latent Catalysts for the Thermally-Controlled Living Polymerization of Cyclic Esters", *Macromolecules*, **2006**, 39, 5617-5628.
- (8) O. Coulembier, Ph. Degée, Ph. Dubois, « Synthesis and Micellization Properties of Novel Symmetrical Poly(ϵ -caprolactone-*b*-[*R,S*] β -malic acid-*b*- ϵ -caprolactone) Triblock Copolymers", *Macromol. Chem. Phys.*, **2006**, 207, 484-491.
- (9) O. Coulembier, L. Mespouille, J.L. Hedrick, R.M. Waymouth, Ph. Dubois, "Metal-Free Catalyzed Ring-Opening Polymerization of β -Lactones: Synthesis of Amphiphilic Triblock Copolymers Based on Poly(dimethylmalic acid)", *Macromolecules*, **2006**, 39, 4001-4008.
- (10) O. Coulembier, Ph. Degée, J.L. Hedrick, Ph. Dubois, "From controlled ring-opening polymerization to biodegradable aliphatic polyester: Especially poly(β -malic acid) derivatives", *Prog. Polym. Sci.*, **2006**, 31, 723-747.
- (11) W. Jeong, D.A. Culkin, O. Coulembier, J.L. Hedrick, R.M. Waymouth, "N-Heterocyclic Carbene Organocatalysts for the Preparation of Biocompatible and Biodegradable Polymers", *PMSE Preprints*, **2006**, 95, 1026-1027.

2007 (6)

- (12) O. Coulembier, M.K. Kiesewetter, A. Mason, Ph. Dubois, J.L. Hedrick, R.M. Waymouth, "A Distinctive Organocatalytic Approach to Complex Macromolecular Architectures", *Angew. Chem. Int. Ed.*, **2007**, 46, 4719-4721.
- (13) O. Coulembier, J. Ghisdal, Ph. Degée, Ph. Dubois, « Benzyl β -malolactonate : synthesis, copolymerization and design of novel biodegradable macromolecular surfactants », *Arkivoc*, **2007**, X, 57-70.
- (14) R.M. Waymouth, J.L. Hedrick, F. Nederberg, R.C. Pratt, B.G.G. Lohmeijer, D.A. Culkin, O. Coulembier, N.E. Kamber, W. Jeong, M.K. Kiesewetter, E.J. Shin, « Polyesters from renewable resources: organocatalytic strategies for controlled polymerization reactions », *Polymer Preprints*, **2007**, 48(2), 812-813.
- (15) O. Coulembier, X. Delva, J.L. Hedrick, R.M. Waymouth, Ph. Dubois, « Synthesis of Biomimetic Poly(hydroxybutyrate) : Alkoxy- and Carboxytriazolines as Latent Ionic Initiator », *Macromolecules*, **2007**, 40, 8560-8567.
- (16) L. Mespouille, M. Vachaudéz, F. Suriano, P. Gerbaux, O. Coulembier, Ph. Degée, R. Flammang, Ph. Dubois, « One-Pot Synthesis of Well-Defined Amphiphilic and Adaptive Block Copolymers via Versatile Combination of "Click" Chemistry and ATRP", *Macromol. Rapid Commun.*, **2007**, 28, 2151-2158.
- (17) O. Coulembier, C. Delcourt, Ph. Dubois, « Bulk Polymerization of (*L,L*)-Lactide Using Non-Organometallic Triazolium Carbene : Limited Advantages », *The Open Macromolecules Journal*, **2007**, 1, 1-5.

2008 (6)

- (18) F. Suriano, O. Coulembier, Ph. Degée, Ph. Dubois, « Carbohydrate-Based Amphiphilic Diblock Copolymers : Synthesis, Characterization, and Aqueous Properties », *Journal of Polymer Science : Part A : Polymer Chemistry*, **2008**, 46, 3662-3672.
- (19) O. Coulembier, J.M. Raquez, Ph. Dubois, « *N*-Heterocyclic carbene catalysis – from simple organic reactions to polymerization of cyclic esters », *Polimery*, **2008**, 53(4), 255-267.
- (20) L. Mespouille, O. Coulembier, D. Paneva, Ph. Degée, Iliya Rashkov, Ph. Dubois, « Novel Biodegradable Adaptive Hydrogels : Controlled Synthesis and Full Characterization of the Amphiphilic Co-Networks », *Chem. Eur. J.*, **2008**, 14, 6369-6378.

- (21) L. Mespouille, M. Vachaudes, F. Suriano, P. Gerbaux, W. Van Camp, O. Coulembier, Ph. Degée, R. Flammang, F. Du Prez, Ph. Dubois, « *Controlled synthesis of amphiphilic block copolymers based on polyester and poly(amino methacrylate): Comprehensive study of reaction mechanisms* », *Reactive & Functional Polymers*, **2008**, 68, 990-1003.
- (22) L. Mespouille, O. Coulembier, D. Paneva, Ph. Degée, I. Rashkov, Ph. Dubois, « *Synthesis of Adaptive and Amphiphilic Combination of ATRP, ROP, and « Click Chemistry »* », *Journal of Polymer Science: Part A: Polymer Chemistry*, **2008**, 46, 4997-5013.
- (23) Y.-H. Shim, F. Bougard, O. Coulembier, R. Lazzaroni, Ph. Dubois, « *Synthesis and Characterization of original 2-(dimethylamino)ethyl methacrylate /poly(ethyleneglycol) star-copolymers* », *European Polymer Journal*, **2008**, 44(11), 3715-3723.

2009 (5)

- (24) J.-M. Raquez, O. Coulembier, Ph. Dubois, « *Recent advances in the synthesis and applications of poly(1,4-dioxan-2-one) - based (co)polymers* », *Polimery*, **2009**, 54(3), 165-178.
- (25) Y. Xiao, O. Coulembier, C.E. Koning, A. Heise, Ph. Dubois, « *Cumulated advantages of enzymatic and carbene chemistry for the non-organometallic synthesis of (co)polyesters* », *Chem. Comm.*, **2009**, 17, 2472-2474.
- (26) M. Spasova, L. Mespouille, O. Coulembier, D. Paneva, N. Manolova, I. Rashkov, Ph. Dubois, « *Amphiphilic poly(D- or L-lactide)-b-poly(N,N-dimethylamino-2-ethyl methacrylate) block copolymers: controlled synthesis, characterization and stereocomplex formation* », *Biomacromolecules*, **2009**, 10, 1217-1223.
- (27) O. Coulembier, D.P. Sanders, A. Nelson, H. Horn, J. Rice, M. Fujiwara, Ph. Dubois, J.L. Hedrick, « *Hydrogen-bonding catalysts based on fluorinated alcohol derivatives for living polymerization* », *Angew. Chem. Int. Ed.*, **2009**, 48(28), 5170-5173.
- (28) J. De Winter, A.-L. Goffin, O. Coulembier, Ph. Dubois, R. Flammang, P. Gerbaux, « *Metastable processes investigated on an oa-ToF instrument : mass-scale calibration and application* », *Eur. J. Mass Spectrom.*, **2009**, 15, 431-437.

2010 (16)

- (29) O. Coulembier, S. Moins, J. De Winter, Ph. Leclère, P. Gerbaux, R. Lazzaroni, Ph. Dubois, « *From jellyfish macromolecular architectures to nano-doughnut self-assembly* », *Macromolecules*, **2010**, 43(1), 575-579.
- (30) O. Coulembier, A. Knoll, D. Pires, B. Gotsmann, U. Duerig, J. Frommer, Ph. Dubois, J.L. Hedrick, « *Probe-Based Nanolithography: Self-Amplified Depolymerization Media for Dry Lithography* », *Macromolecules*, **2010**, 43(1), 572-574.
- (31) S. Clément, O. Coulembier, Ph. Dubois, Y. Geerts, R. Lazzaroni, F. Meyer, Ch. Van de Velde, « *Synthesis and supramolecular organization of regioregular polythiophene block oligomers* », *J. Org. Chem.*, **2010**, 75, 1561-1568.
- (32) M. Surin, O. Coulembier, K. Tran, J. De Winter, Ph. Leclère, P. Gerbaux, R. Lazzaroni, Ph. Dubois, « *Regioregular poly(3-hexylthiophene)-poly(ϵ -caprolactone) block copolymers: controlled synthesis, microscopic morphology, and charge transport properties* », *Org. Electron.*, **2010**, 11, 767-774.
- (33) S. Clément, O. Coulembier, Ph. Dubois, Y. Geerts, R. Lazzaroni, F. Meyer, Ch. Van de Velde, « *(E)-3-(perfluorostyryl)thiophene* », *Acta Crystallogr A*, **2010**, E66, 0896-0897.
- (34) K. Fukushima, O. Coulembier, J. Lecuyer, Ph. Dubois, R.M. Waymouth, H.W. Horn, J.A. Rice, J.L. Hedrick, « *Closing the Loop on Recycling : Organocatalytic Depolymerization of Poly(ethylene terephthalate) »* , *Polymeric Materials : Science and Engineering (PMSE)*, **2010**, 102, 111-112.

- (35) O. Coulembier, F. Meyer, Ph. Dubois, « *Controlled room temperature ROP of L-lactide by ICl_3 : a simple halogen-bonding catalyst* », Polymer Chemistry, **2010**, 1, 434-437.
- (36) F. Boon, S. Desbief, B. Ruelle, O. Coulembier, O. Douhéret, Ph. Dubois, R. Lazzaroni, « *Elaboration and characterization of novels nanocomposites based on regioregular poly(3-hexylthiophene) and multi walled carbon nanotubes* », Macromol. Rapid Commun., **2010**, 31, 1427-1434.
- (37) A. Knoll, D. Pires, O. Coulembier, Ph. Dubois, J.L. Hedrick, J. Frommer, U. Duerig, « *Probe-Based 3-D Nanolithography using Self-Amplified Depolymerization Polymers* », Adv. Materials, **2010**, 22(31), 3361-3365.
- (38) J. De Winter, V. Lemaure, Ph. Marsal, O. Coulembier, J. Cornil, Ph. Dubois, P. Gerbaux, « *Mechanistic study of the collision-induced dissociation of sodium-cationized polylactide oligomers : A joint experimental and theoretical investigation* », Journal of the American Society for Mass Spectrometry, **2010**, 21, 1159-1168.
- (39) F. Suriano, O. Coulembier, Ph. Dubois, « *Synthesis of Amphiphilic A3B Mikto-Arm Copolymers from a Sugar Core : Combination of Hydrophobic PCL and Hydrophilic Glycopolymers for Biocompatible Nanovector Preparation* », Journal of Polymer Science : Part A : Polymer Chemistry, **2010**, 48, 3271-3280.
- (40) F. Meyer, J.M. Raquez, O. Coulembier, J. De Winter, P. Gerbaux, Ph. Dubois, « *Imidazolium End-functionalized Poly(L-lactide) for Efficient Carbon Nanotube Dispersion* », Chem.Comm., **2010**, 46, 5527-5529.
- (41) F. Suriano, O. Coulembier, Ph. Dubois, « *Synthesis of Brush-like Copolymers using Carbohydrates as Initiators: Benefits of Organic Catalysts for the ROP of Lactones* », Reactive & Functional Polymers, **2010**, 70, 747-754.
- (42) J. De Winter, M. Vachaud, O. Coulembier, Ph. Dubois, R. Flammang, P. Gerbaux, « *Comparison of matrix assisted laser desorption/ionization mass spectroscopy with electrospray ionisation mass spectroscopy for the characterization of semi-telechelic polyethylene oxide* », E-Polymer, **2010**, 103, 1-10.
- (43) G. Grancharov, O. Coulembier, M. Surin, R. Lazzaroni, Ph. Dubois, « *Stereocomplexed Materials based on Poly(3-hexylthiophene)-b-poly(lactide) block copolymers : Synthesis by Organic Catalysis, Thermal Properties and Microscopic Morphology* », Macromolecules, **2010**, 43, 8957-8964.
- (44) J. De Winter, O. Coulembier, P. Gerbaux, Ph. Dubois, « *High molecular weight poly(α,α',β -trisubstituted β -lactones) generated by metal-free phosphazene catalysts* », Macromolecules, **2010**, 43(24), 10291-10296.

2011 (9)

- (45) J. De Winter, G. Deshayes, F. Boon, O. Coulembier, Ph. Dubois, P. Gerbaux, « *MALDI-ToF analysis of polythiophene : use of trans-2-[3-(4-t-Butyl-phenyl)-2-methyl-2-propenylidene]malononitrile – DCTB – as matrix* », J. Mass Spectrom., **2011**, 46, 237-246. (I.F. 3.411)
- (46) K. Fukushima, O. Coulembier, J. Lecuyer, H.A. Al-Megren, A. Mohammad, F.D. Alsewilem, M.A. McNeil, Ph. Dubois, R.M. Waymouth, H.W. Horn, J.A. Rice, J.L. Hedrick, « *Closing the Loop on Recycling : Organocatalytic Depolymerization of Poly(ethylene terephthalate)* », J. Polym. Sci. Pol. Chem., **2011**, 49(5), 1273-1281. (I.F. 3.971)
- (47) H.T. Nguyen, O. Coulembier, P. Gerbaux, J. De Winter, X. Crispin, Ph. Dubois, « *Novel regioregular poly(3-hexylthiophene)-based polycationic block copolymers* », Polymer Bulletin, **2011**, 66, 51-64. (I.F. 1.014)
- (48) F. Suriano, O. Coulembier, J.L. Hedrick, Ph. Dubois, « *Functionalized Cyclic Carbonates: From Synthesis and Metal-free catalyzed Ring-Opening Polymerization to Applications* », Polymer Chemistry, **2011**, 2, 528-533. (I.F. 5.3)

- (49) M. Vachaudes, D. R. D'hooge, M.-F. Reyniers, G. B. Marin, O. Coulembier, Ph. Dubois, "Aqueous Controlled Radical Polymerization of Acrylamides: Macromolecular Engineering Using Kinetic Modeling", *Polymeric Materials: Science and Engineering (PMSE)*, 2011, 104, 34-35.
- (50) O. Coulembier, S. Moins, J.-M. Raquez, F. Meyer, L. Mespouille, E. Duquesnes, Ph. Dubois, "Thermal degradation of Poly(L-lactide): accelerating effect of residual DBU derivatives", *Polym Degrad Stabil*, **2011**, 96, 739-744. (I.F. 2.154)
- (51) J. De Winter, V. Lemaury, R. Ballivian, F. Chiro, O. Coulembier, R. Antoine, J. Lemoine, J. Cornil, Ph. Dubois, Ph. Dugourd, P. Gerbaux, "Size dependence on the folding of multiply charged sodium cationized polylactides revealed by ion mobility mass spectrometry and theoretical calculations.", *Chem-Eur. J.*, **2011**, 17, 9738-9745. (I.F. 5.382)
- (52) O. Coulembier, S. Moins, Ph. Dubois, "Dual Versatility of triazolium-based Cyclic Carbonate Inimer: from Homopolymerization to on-demand thermally activated initiating site", *Macromolecules*, **2011**, 44, 7493-7498 (I.F. 4.395)
- (53) J. De Winter, O. Coulembier, Ph. Dubois, P. Gerbaux, «Collision-induced dissociation of polymer ions: charge driven decomposition for sodium-cationized polylactides and isomeric end-group distinction», *International journal of mass spectrometry*, **2011**, 308, 11-17 (I.F. 2.117)

2012 (8)

- (54) O. Coulembier, V. Lemaury, T. Josse, A. Minoia, J. Cornil, Ph. Dubois, « Synthesis of Poly(L-Lactide) and Gradient Copolymers from L-Lactide/Trimethylene Carbonate Eutectic Melt», *Chem. Sci.*, **2012**, 3, 723-726. (I.F. 7.525)
- (55) O. Coulembier, Ph. Dubois, "4-Dimethylaminopyridine-based Organoactivation: from Simple Esterification to Lactide Ring-Opening "Living" Polymerization", *Journal of Polymer Science: Part A: Polymer Chemistry*, **2012**, 50, 1672-1680. (I.F. 3.919)
- (56) M. Kawalec, O. Coulembier, P. Gerbaux, M. Sobota, J. De Winter, Ph. Dubois, M. Kowalczyk, P. Kurcok, "Traces Do Matter - Purity of 4-Methyl-2-Oxetanone and Consequence in Anionic Ring-Opening Polymerization Evidenced by Phosphazene Superbases Catalysis Reactive and Functional Polymers", *React. Funct. Polym.*, **2012**, 72, 509-520 (I.F. 2.479)
- (57) C. Aurisicchio, R. Marega, V. Corvaglia, J. Mohanraj, R. Delamare, D.A. Serban-Vlad, C. Kusko, C.A. Dutu, A. Minoia, G. Deshayes, O. Coulembier, S. Melinte, Ph. Dubois, R. Lazzaroni, N. Armaroli, D. Bonifazi, "CNTs in Optoelectronic Devices: New structural and photophysical insights for Porphyrin-DWCNTs Hybrid Materials", *Adv. Funct. Materials*, **2012**, 22, 3209-3222 (I.F. 10.179)
- (58) F. Boon, A. Thomas, G. Clavel, D. Moerman, J. De Winter, D. Laurencin, O. Coulembier, Ph. Dubois, P. Gerbaux, R. Lazzaroni, S. Richeter, A. Mehdi, S. Clément, « Synthesis and characterization of carboxystyryl end-functionalized poly(3-hexylthiophene)/TiO₂ hybrids in view of photovoltaic applications" *Synthetic Met.*, **2012**, 162, 1615-1622 (I.F. 1.829)
- (59) K. Rahimi, I. Botiz, N. Stingelin, N. Kayunkid, M. Sommer, F. Koch, H. Nguyen, O. Coulembier, Ph. Dubois, M. Brinkmann, G. Reiter, "Formation of single crystals of Poly(3-hexylthiophene)", *Angew. Chem. Int. Ed.*, **2012**, 51, 11131-11135 (I.F. 13.455)
- (60) O. Coulembier, T. Josse, B. Guillermin, P. Gerbaux, Ph. Dubois, « Imidazole-based organocatalyst designed for bulk polymerization of lactide isomers: inspiration from Nature", *Chem. Commun.*, **2012**, 48, 11695-11697 (I.F. 6.169)
- (61) H. Tran Nguyen, O. Coulembier, K. Gheysen, J. C. Martins, Ph. Dubois, « Copper-Catalyzed Dehydrogenative Polycondensation of Bis-Aniline Hexylthiophene-based

Monomer: a Kinetically Controlled Air-tolerant Process”, *Macromolecules*, **2012**, 45(23), 9547-9550 (I.F. 5.167)

2013 (9)

- (62) O. Coulembier, G. Deshayes, Julien De Winter, Florian Boon, Cécile Delcourt, Mathieu Surin, Philippe Leclère, Roberto Lazzaroni, Pascal Gerbaux and Philippe Dubois, « *Macrocyclic Regioregular Poly(3-hexylthiophene): From Controlled Synthesis to Nanotubular Assemblies.* », *Polym. Chem.*, **2013**, 4, 237-241 (I.F. 5.321)
- (63) M. Vachaud, D. R. D’hooge, M. Socka, J. Libiszowski, O. Coulembier, M.-F. Reyniers, A. Duda, G. B. Marin, Ph. Dubois, “*Mechanistic investigation of N-isopropylacrylamide atom transfer radical polymerization in aqueous medium. 1. Experimental investigation*”, *React. Funct. Polym.*, **2013**, 73, 484-491 (I.F. 2.479)
- (64) S. Tempelaar, L. Mespouille, O. Coulembier, Ph. Dubois, A. P. Dove, « *Synthesis and Post-Polymerisation Modifications of Aliphatic Poly(Carbonate)s Prepared by Ring-Opening Polymerisation* », *Chem. Soc. Rev.*, **2013**, 42, 1312-1336 (I.F. 28.760)
- (65) H. Sinno, H. Tran Nguyen, A. Hägerström, M. Fahlman, L. Lindell, O. Coulembier, Ph. Dubois, X. Crispin, I. Engquist, M. Berggren, “ *Amphiphilic semiconducting copolymer as compatibility layer for printing polyelectrolyte-gated OFETs*”, *Org. Electron.*, **2013**, 14, 790-796 (I.F. 4.047)
- (66) A. Laiho, H. Nguyen, H. Sinno, I. Engquist, M. Berggren, Ph. Dubois, O. Coulembier, X. Crispin, “*Amphiphilic poly(3-hexylthiophene)-based semiconducting copolymers for printing of polyelectrolyte-gated organic field-effect transistors*”, *Macromolecules*, **2013**, 46, 4548-4557 (I.F. 5.167)
- (67) D.R. D’hooge, M. Vachaud, F.J. Stadler, M.-F. Reyniers, O. Coulembier, C. Bailly, Ph. Dubois, G.B. Marin, “*Assessment of End-group Fidelity and Diffusional Limitations in the Atom Transfer Radical Polymerization of N-isopropylacrylamide*”, *Eur. Polym. J.*, **2013**, 49, 2344-2355 (I.F. 2.739)
- (68) J.-F. Lefebvre, M. Lo, O. Coulembier, Ph. Dubois, J.-P. Gisselbrecht, S. Clément, S. Richeter, « *Porphyrins Fused to N-Heterocyclic Carbene Ligands (NHCs): Modulation of the Electronic and Catalytic Properties of NHCs by the Central Metal of the Porphyrin* », *Chem. Eur. J.*, **2013**, 19, 15652-15660 (I.F. 5.925)
- (69) Z. Masri, A. Ruseckas, A.K. Bansal, A. Matheson, I.D.W. Samuel, H.T. Lemke, M.M. Nielsen, H. Nguyen, O. Coulembier, Ph. Dubois, E.V. Emelianova, L. Wang, D. Beljonne, “*Molecular weight dependence of exciton diffusion in poly(3-hexylthiophene)*”, *Adv. Energy Mater.*, **2013**, 3, 1445-1453 (I.F. 10.043)
- (70) O. Coulembier, S. Moins, Ph. Dubois, « *Preparation and Copolymerization of a Functionalized Lactone with (DHQD)₂AQN* », *Green Materials*, **2013**, 1(4), 203-208 (I.F. Not applicable)

2014 (9)

- (71) J. De Winter, A. P. Dove, A. Knoll, P. Gerbaux, Ph. Dubois, O. Coulembier, “ *Control over Molar mass, Dispersity, End-groups and Kinetics in Cyclopolymerization of ortho-Phthalaldehyde : Adapted Choice of Phosphazene Organocatalyst* », *Polym. Chem.*, **2014**, 5, 706-711 (I.F. 5.368)
- (72) T. Josse, O. Altintas, K.K. Oehlenschlaeger, O. Coulembier, Ch. Barner-Kowollik, “*Ambient Temperature Catalyst-Free Light-induced Cyclisation of Conventional Biodegradable and Biocompatible Polymers*”, *Chem. Commun.*, **2014**, 50, 2024-2026 (I.F. 6.378)

- (73) O. Coulembier, S. Moins, Richard Todd, Ph. Dubois, « *External and Reversible CO₂ Regulation of Ring-Opening Polymerizations based on a Primary Alcohol Propagating Species.*», *Macromolecules*, **2014**, 47, 486-491 (I.F. 5.521)
- (74) B. Guillermin, V. Lemaire, B. Ernould, J. Cornil, R. Lazzaroni, J.-F. Gohy, Ph. Dubois, O. Coulembier, « *One-pot Two-Step Efficient Green Process for the Generation of PEO-b-PCL-b-PLA Amphiphilic Triblock Copolymers: Positive Impact of the PEO Macroinitiator*», *RSC Adv.*, **2014**, 4, 10028-10038 (I.F. 2.562)
- (75) O. Coulembier, J. De Winter, T. Josse, L. Mespouille, P. Gerbaux, Ph. Dubois, « *One-Pot Synthesis of Polylactide Macrocycles from Sparteine Initiator* », *Polym. Chem.*, **2014**, 5, 2103-2108 (I.F. 5.368)
- (76) A.P. Vogt, J. De Winter, P. Krolla-Sidenstein, U. Geckle, O. Coulembier, C. Barner-Kowollik, « *Polyphthalaldehyde-block-Polystyrene as a Nanochannel Template*», *J. Mater. Chem. B*, **2014**, 2, 3578-3581 (I.F. 6.108).
- (77) L. Mespouille, O. Coulembier, M. Kawalec, A.P. Dove, Ph. Dubois, « *Implementation of metal-free ring-opening polymerization in the preparation of aliphatic polycarbonate materials*», *Prog. Polym. Sci.*, **2014**, 39, 1144-1164 (I.F. 26.383)
- (78) B. Guillermin, V. Lemaire, J. Cornil, R. Lazzaroni, Ph. Dubois, O. Coulembier, « *Ammonium Betaines : Efficient Ionic Nucleophilic Catalysts for the Ring-Opening Polymerization of L-lactide and Cyclic Carbonates*», *Chem. Commun.*, **2014**, 50, 10098-10101 (I.F. 6.378)
- (79) J. M. García, G. O. Jones, J. De Winter, O. Coulembier, Ph. Dubois, J. L. Hedrick, « *Meisenheimer Complex Inspired Catalyst- and Solvent-Free Synthesis of Non-Cyclic Poly(aryl ether sulfone)s*», *Macromolecules*, **2014**, 47, 8131-8136 (I.F. 5.927)

2015 (7)

- (80) T. Josse, J. De Winter, Ph. Dubois, O. Coulembier, P. Gerbaux, A. Memboeuf, « *A tandem mass spectrometry-based method to assess the architectural purity of synthetic polymers: a case of a polylactide obtained by click chemistry*», *Polym. Chem.*, **2015**, 6, 64-69 (I.F. 5.368)
- (81) O. Coulembier, S. Moins, S. Maji, Z. Zhang, B. De Geest, Ph. Dubois, R. Hoogenboom, « *Linear Polyethyleneimine as (multi)Functional Initiator for Organocatalytic L-lactide Polymerization*», *J. Mater. Chem. B*, **2015**, 3, 612-619 (I.F. 6.626)
- (82) A. Nachtergaele, O. Coulembier, P. Duez, B. Blankert, Ph. Dubois, L. Mespouille, « *Organocatalysis Paradigm Revised: Are Metal-free Catalysts really Harmless?*», *Biomacromolecules*, **2015**, 16, 507-514 (I.F. 5.371)
- (83) J. Dervaux, P.A. Cormier, S. Konstantinidis, R. Di Ciuccio, O. Coulembier, Ph. Dubois, R. Snyders, « *Deposition of porous titanium oxide thin films as anode material for dye sensitized solar cells*», *Vacuum*, **2015**, 114, 213-220 (I.F. 1.426)
- (84) O. Coulembier, S. Moins, Vincent Lemaire, R. Lazzaroni, Ph. Dubois, « *Efficiency of DBU/Iodine Cooperative Dual Catalysis for the Solvent-Free Synthesis of Five-Membered Cyclic Carbonates under Atmospheric CO₂ Pressure* », *J. CO₂ Util.*, **2015**, 10, 7-11 (I.F. 5.078)
- (85) T. Josse, J. De Winter, O. Altintas, Ph. Dubois, Ch. Barner-Kowollik, P. Gerbaux, O. Coulembier, « *Sunlight-induced Click Reaction : An Efficient Route to Cyclic Polymers*», *Macromol. Chem. Phys.*, **2015**, 216 (11), 1227-1234 (I.F. 2.451)
- (86) M. Chevrier, J. E. Houston, J. Kesters, N. Van den Brande, A. E. Terry, S. Richeter, A. Mehdi, O. Coulembier, Ph. Dubois, R. Lazzaroni, B. Van Mele, W. Maes, R. C. Evans, S. Clément, « *Self-Assembled Conjugated Polyelectrolyte-Surfactant Complexes as Efficient Electron Transport Materials for Bulk Heterojunction Organic Solar Cells*», *J. Mater. Chem. A*, **2015**, 3, 23905-23916 (I.F. 7.443)

2016 (6)

- (87) M. Chevrier, S. Richeter, O. Coulembier, M. Surin, A. Mehdi, R. Lazzaroni, R.C. Evans, Ph. Dubois, S. Clément, « *Expanding the light absorption of poly(3-hexylthiophene) by end-functionalization with π -extended porphyrins* », Chem. Commun., **2016**, 52, 171-174 (I.F. 6.718)
- (88) M. Chevrier, J. Kesters, C. Blayo, S. Richeter, A. Van Der Lee, O. Coulembier, M. Surin, A. Mehdi, R. Lazzaroni, R. C. Evans, W. Maes, Ph. Dubois, S. Clément, « *Regioregular Polythiophene-Porphyrin Supramolecular Copolymers for Optoelectronic Applications* », Macromol. Chem. Phys., **2016**, 217, 445- 458 (I.F. 2.451)
- (89) G. Grancharov, V. Gancheva, P. Petrov, J. De Winter, P. Gerbaux, O. Coulembier, Ph. Dubois, « *Nanoporous poly(3-hexylthiophene) thin films based on "click" prepared degradable diblock copolymers* », RSC Adv., **2016**, 6, 33468-33477 (I.F. 3.84)
- (90) L. Pessoni, J. De Winter, M. Surin, N. Hergué, N. Delbosc, Ph. Dubois, R. Lazzaroni, P. Gerbaux, O. Coulembier, « *Synthesis of polyphthalaldehyde-based block copolymers: utilization of a thermo-sacrificial segment for an easy access to fine-tuned poly(3-hexylthiophene) nanostructured films* », Macromolecules, **2016**, 49, 3001-3008 (I.F. 5.8)
- (91) T. Josse, J. De Winter, P. Gerbaux, O. Coulembier, « *Cyclic polymers by Ring-Closure Strategies* », Angew. Chem. Int. Ed., **2016**, 55, 13944-13958 (I.F. 11.261)
- (92) R. Liénard, N. Zaldua, T. Josse, J. De Winter, M. Zubitur, A. Mugica, A. Iturrospe, A. Arbe, O. Coulembier, A. J. Müller, « *Synthesis and characterization of double crystalline cyclic diblock copolymers of poly(ϵ -caprolactone) and poly(L(D)-lactide) (c(PCL-b-PL(D)LA))* », Macromol. Rapid. Commun., **2016**, 37, 1676-1681 (I.F. 4.941)

2017 (7)

- (93) R. Liénard, T. Josse, J. De Winter, Ph. Dubois, O. Coulembier, « *Preparation of highly pure cyclo-poly lactides by optimization of the copper-catalyzed azide-alkyne cycloaddition reaction* », Polimery, **2017**, 62(4), 435-442 (I.F. 0.718)
- (94) N. Delbosc, S. Moins, J. De Winter, Ph. Dubois, A. Persoons, O. Coulembier, « *Macrocyclic P3HT obtained by intramolecular McMurry coupling of linear bis aldehyde polymer: a direct comparison with linear homologue* », Macromolecules, **2017**, 50, 1939-1949 (I.F. 5.554)
- (95) S. Moins, J.C. Martins, A. Krumpmann, V. Lemaury, J. Cornil, N. Delbosc, A. Decroly, Ph. Dubois, R. Lazzaroni, J.-F. Gohy, O. Coulembier, « *Potential of Polymethacrylate Pseudo Crown Ethers as Solid State Polymer Electrolyte* », Chem. Commun., **2017**, 53, 6899-6902 (I.F. 6.567)
- (96) Q. Duez, F. Chiro, R. Liénard, T. Josse, C.M. Choi, O. Coulembier, Ph. Dugourd, J. Cornil, P. Gerbaux, J. De Winter, « *Polymer ions for Travelling Wave Ion Mobility Spectrometry Calibration* », J. Am. Soc. Mass Spectrom., **2017**, 28, 2483-2491 (I.F. 3.031)
- (97) P. Bexis, O. Coulembier, A.P. Dove, « *Synthesis of Stereoregular Isotactic Degradable Polymers derived from O-Carboxyanhydrides of L-lactic and L-malic acid using a Single Organocatalyst/Initiator System* », Eur. Polym. J., **2017**, 95, 660-670 (I.F. 3.485)
- (98) L. Mezzasalma, A.P. Dove, O. Coulembier, « *Organocatalytic ring-opening polymerization of L-lactide in bulk: A long standing challenge* », Eur. Polym. J., **2017**, 95, 628-634 (I.F. 3.485)
- (99) A. Basterretxea, E. Gabirondo, A. Sanchez-Sanchez, A. Etxeberria, O. Coulembier, D. Mecerreyes, H. Sardon, « *Synthesis and characterization of poly (ϵ -caprolactam-co-lactide) polyesteramides using Brønsted acid/base organocatalysts* », Eur. Polym. J., **2017**, 95, 650-659 (I.F. 3.485)

2018 (7)

- (100) L. Mezzasalma, J. De Winter, D. Taton, O. Coulembier, “*Extending the Scope of Benign and Thermally Stable Organocatalysts: Application of Dibenzoylmethane for the Bulk Copolymerization of L-lactide and ϵ -caprolactone*”, *Journal of Polymer Science: Part A: Polymer Chemistry*, **2018**, 56(5), 475-479 (I.F. 3.113)
- (101) N. Zaldua, R. Liénard, T. Josse, M. Zubitur, A. Iturrospe, A. Arbe, J. De Winter, O. Coulembier, A. J. Müller, “*Influence of chain topology (cyclic versus linear) on the nucleation and isothermal crystallization of poly(L-lactide) and poly(D-lactide)*”, *Macromolecules*, **2018**, 51, 1718-1732 (I.F. 5.835)
- (102) S. Moins, C. Henoumont, J. De Winter, A. Khalil, S. Laurent, S. Cammas-Marion, O. Coulembier, “*Reinvestigation of the Mechanism of Polymerization of β -Butyrolactone from 1,5,7-Triazabicyclo[4.4.0]dec-5-ene*”, *Polymer Chemistry*, **2018**, 9, 1840-1847 (I.F. 5.375)
- (103) M. Langlais, O. Coutelier, O. Coulembier, M. Destarac, “*Scope and Limitations of Ring-Opening Copolymerization of Trimethylene Carbonate and γ -Thiolactone*”, *Polymer Chemistry*, **2018**, 9, 2769-2774 (I.F. 5.375)
- (104) N. Hergué, B. Ernould, A. Minoia, R. Lazzaroni, J.-F. Gohy, Ph. Dubois, O. Coulembier, “*Improvement of Battery Performances using Multi-Pyrene PTMA Structure*”, *Batteries & Supercaps*, **2018**, 1, 102-109 (I.F. Not applicable)
- (105) B. Orhan, M. J.-L. Tschan, A.-L. Wirotius, A. P. Dove, O. Coulembier, D. Taton, “*Isoselective Ring-Opening Polymerization of rac-Lactide From Chiral Takemoto’s Organocatalysts: Elucidation of Stereocontrol*”, *ACS Macro Letters*, **2018**, 7, 1413-1419 (I.F. 6.131)
- (106) L. Mezzasalma, J. De Winter, D. Taton, O. Coulembier, “*Benzoic Acid a Weak Acid Organocatalyst for the Bulk Ring-Opening (co)Polymerization of L-Lactide and ϵ -Caprolactone*”, *Green Chem.*, **2018**, 20, 5385 – 5396 (I.F. 8.586)

2019 (14)

- (107) Y. Zhang, S. Moins, O. Coulembier, P. Dubois, D. Seveno, J. De Coninck, “*Capillary rise of polydimethylsiloxane around a poly(ethylene terephthalate) fiber versus temperature: existence of a sharp transition in the dynamic wetting behavior*”, *Journal of Colloid and Interface Science*, **2019**, 536, 499-506 (I.F. 5.091)
- (108) J. Huang, J. De Winter, A.P. Dove, O. Coulembier, “*Metal-free Synthesis of Poly(trimethylene carbonate) by Efficient Valorization of Carbon Dioxide*”, *Green Chem.*, **2019**, 21, 472-477 (I.F. 8.586)
- (109) A. Khalil, S. Cammas-Marion, O. Coulembier, “*Organocatalysis Applied to the Ring-Opening Polymerization of β -Lactones: A Brief Overview*”, *Journal of Polymer Science – Part A*, **2019**, 57, 657-672 (I.F. 3.543)
- (110) A. Basterretxea, E. Gabirondo, C. Jehanno, H. Zhu, M. Forsyth, I. Flores, A.J. Müller, A. Etxebarria, D. Mecerreyes, O. Coulembier, H. Sardon, “*Polyether Synthesis by Bulk Self-Condensation of Diols Catalyzed by Protic Ionic Organocatalysts*”, *ACS Sustainable Chem. Eng.*, **2019**, 7(3), 4103-4111 (I.F. 6.140)
- (111) Q. Duez, R. Liénard, S. Moins, O. Coulembier, J. Cornil, P. Gerbaux, J. De Winter, “*On the Contribution of Polymer End Groups in Ion Mobility Mass Spectrometry*”, *Polymers*, **2019**, 11, 688-701 (I.F. 2.935)
- (112) L. Mezzasalma, S. Harrisson, S. Saba, P. Loyer, O. Coulembier, D. Taton, “*Bulk Organocatalytic Synthetic Access to Statistical Copolyesters from L-Lactide and ϵ -*

- Caprolactone Using Benzoic Acid*", *Biomacromolecules*, **2019**, 20(5), 1965-1974 (I.F. 5.738)
- (113) A. Basterretxea, E. Gabirondo, I. Flores, A. Etxeberria, A. González, A. Müller, D. Mecerreyes, O. Coulembier, H. Sardon, "Isomorphic polyoxyalkylenes copolyethers obtained by copolymerization of aliphatic diols", *Macromolecules*, **2019**, 52(9), 3506-3515 (I.F. 5.997)
- (114) N. Hergué, B. Ernould, A. Minoia, J. De Winter, P. Gerbaux, R. Lazzaroni, J.-F. Gohy, Ph. Dubois, O. Coulembier, "Diblock copolymers consisting of a redox polymer block based on a stable radical linked to an electrically conducting polymer block as cathode materials for organic radical batteries", *Polym. Chem.*, **2019**, 10, 2570-2578 (I.F. 4.927)
- (115) J. Maiz, G. Liu, N. Delbosc, O. Coulembier, D. Wang, A.J. Müller, "How cyclic chain topology can reduce the crystallization rate of Poly(3-hexylthiophene) and promote the formation of liquid crystalline phases in comparison with linear analogue chains", *J. Mater. Chem. C*, **2019**, 7, 6548-6558 (I.F. 5.976)
- (116) H. Oubaha, N. Demitri, J. Rault-Berthelot, P. Dubois, O. Coulembier, D. Bonifazi, "Photoactive boron-nitrogen-carbon hybrids: from azo-borazines to polymeric materials", *J. Org. Chem.*, **2019**, 84, 9101-9116 (I.F. 4.805)
- (117) B. Raeskinet, S. Moins, L. Harvey, J. De Winter, C. Henoumont, O. Coulembier, «Simultaneous «O-Alkyl » and « O-Acyl » Lactone Cleavages from Hydroxy-Carboxylic acid Initiators: Direct Access to Multi-block Architectures», *Macromolecules*, **2019**, 52 (17), 6382-6392 (I.F. 5.997)
- (118) R. Mincheva, S. Narayana Murthy Chilla, R. Todd, B. Guillermin, J. De Winter, P. Gerbaux, O. Coulembier, Ph. Dubois, J.-M. Raquez, "Reactive extrusion and magnesium (II) N-heterocyclic carbene catalyst in continuous PLA production", *Polymers*, **2019**, 11, 1987-1997 (I.F. 3.164)
- (119) S. Moins, P. Loyer, J. Odent, O. Coulembier, « Preparation of a Mimetic and Degradable Poly(ethylene oxide) by a Non-Eutectic Mixture of Organocatalysts (NEMO) One-Pot Two-Step Process", *RSC Advances*, **2019**, 9, 40013-40016 (I.F. 3.049)
- (120) C. Jehanno, L. Mezzasalma, S. Engelen, H. Sardon, F. Ruipérez, O. Coulembier, D. Taton, "Benzoic Acid as an Efficient Organocatalyst for the Statistical Ring Opening co-Polymerization of ϵ -Caprolactone and L-Lactide: A Computational Study", *Macromolecules*, **2019**, 52(23), 9238-9247 (I.F. 5.997)

2020 (10)

- (121) R. Mincheva, H. Guemiza, Ch. Hidan, S. Moins, O. Coulembier, Ph. Dubois, F. Laoutid, « Development of Inherently Flame-Retardant Phosphorylated PLA by Combination of Ring-Opening Polymerization and Reactive Extrusion", *Materials*, **2020**, 13, 13-25 (I.F. 2.972)
- (122) J. Huang, J.C. Worch, A.P. Dove, O. Coulembier, "Update and Challenges in CO₂-based polycarbonate synthesis", *ChemSusChem.*, **2020**, 13, 469-487 (I.F. 7.804)
- (123) J. Huang, C. Jehanno, J.C. Worch, F. Ruipérez, H. Sardon, A. P. Dove, O. Coulembier, «Selective Organocatalytic Preparation of Trimethylene Carbonate from Oxetane and Carbene Dioxide", *ACS Catalysis*, **2020**, 10(10), 5399-5404 (I.F.12.221)
- (124) R. Liénard, J. De Winter, O. Coulembier, "Cyclic Polymers: Advances in their synthesis, properties and biomedical applications", *Journal of Polymer Science – Part A: Polymer Chemistry*, **2020**, 58, 1481-1502 (I.F. 2.591)
- (125) S. Moins, S. Hoyas, V. Lemaury, B. Orhan, K. Delle Chiaie, R. Lazzaroni, D. Taton, A. P. Dove, O. Coulembier, « Stereoselective ROP of rac- and meso-Lactides using Achiral TBD as Catalyst", *Catalysts*, **2020**, 10, 620 - 628 (I.F. 3.44)

- (126) R. Liénard, Q. Duez, S.M. Grayson, P. Gerbaux, O. Coulembier, J. De Winter, "Limitations of Ion Mobility Spectrometry-Mass Spectrometry for the relative quantification of architectural isomeric polymers: a case study", *Rapid Comm. In Mass Spectrometry*, **2020**, e8660 (I.F. 2.045)
- (127) A. Khalil, S. Saba, C. Ribault, M. Vlach, P. Loyer, O. Coulembier, S. Cammas-Marion, "Synthesis of poly(dimethylmalic acid) homo- and copolymers to produce biodegradable nanoparticles for drug delivery: Cell uptake and biocompatibility evaluation in human HepaRG hepatoma cells", *Polymers*, **2020**, 12, 1705 (I.F. 3.164)
- (128) R. Lienard, M. Montesi, S. Panseri, S. Maria Dozio, F. Vento, P.G. Mineo, A. Piperno, O. Coulembier, A. Scala, "Design of naturally inspired jellyfish-shaped cyclopoly lactides to manage osteosarcoma cancer stem cells fate", *Materials Science & Engineering C*, **2020**, 117, 111291 (I.F. 4.959)
- (129) F. Asai, T. Seki, A. Sugawara-Narutaki, K. Sato, J. Odent, O. Coulembier, J.-M. Raquez, Y. Takeoka, "Tough and 3D-printable Poly(2-methoxyethyl Acrylate)-Silica Composite Elastomer for Blood-Compatible Materials", *ACS Applied Materials & Interfaces*, **2020**, 12(41), 46621 - 46628 (I.F. 8.758)
- (130) Q. Duez, S. Moins, O. Coulembier, J. De Winter, J. Cornil, P. Gerbaux, « Assessing the structural heterogeneity of isomeric homo and copolymers: an approach combining ion mobility mass spectrometry and molecular dynamics simulations », *J. Am. Soc. Mass Spectrom.*, **2020**, 31(11), 2379-2388 (I.F. 3.255)

2021 (8)

- (131) P. Bexis, J. De Winter, M. C. Arno, O. Coulembier, A. P. Dove, "Organocatalytic Synthesis of Alkyne-Functional Aliphatic Polycarbonates via Ring-Opening Polymerization of an 8-Membered-N-Cyclic Carbonate", *Macromol. Rapid Commun.*, **2021**, 42, 2000378 (I.F. 4.078)
- (132) M. Zaky, A.-L. Wirotius, O. Coulembier, G. Guichard, S. Liu, Z. Li, D. Taton, "A chiral phosphazanium thiourea anion for fast and stereoselective organocatalytic ring-opening-polymerization of racemic lactide", *Chem. Commun*, **2021**, 57, 3777 - 3780 (I.F. 5.996)
- (133) A. Richel, O. Coulembier, "« Bio-sourcing » et catalyse organique : deux options d'investissement synergiques à soutenir pour le développement de matériaux polymères», *L'Act. Chim.*, **2021**, 462, 25 – 33 (I.F. none)
- (134) S. Moins, C. Henoumont, Q. De Roover, S. Laurent, J. De Winter, O. Coulembier, "Accelerating Effect of Crown Ethers on the Lactide Polymerization catalysed by Potassium Acetate", *Catal. Sci. Technol.*, **2021**, 11, 4387 – 4391 (I.F. 6.119)
- (135) A. Basterretxea, E. Gabirondo, C. Jehanno, O. Coulembier, H. Sardon, « Stereoretention in the Bulk ROP of L-Lactide Guided by a Thermally Stable Organocatalyst », *Macromolecules*, **2021**, 54(13), 6214-6225 (I.F. 5.918)
- (136) M. Betegón Ruiz, R. A. Pérez-Camargo, J. V. López, E. Penott, A. Múgica, O. Coulembier, A. J. Müller, "Accelerating the crystallization kinetics of linear PLAs by adding cyclic PLLA: Nucleation, plasticization and topological effects", *Int. J. Biolog. Macromol.*, **2021**, 186, 255-267 (I.F. 6.953)
- (137) S. Hoyas, P. Weber, O. Coulembier, J. De Winter, J. Cornil, P. Gerbaux, "Helical peptoid ions in the gas phase: Thwarting the charge screening effect by H-bond compensation", *Biomacromolecules*, **2021**, 22(8), 3543 - 3551 (I.F. 6.092)
- (138) Q. De Roover, T. Vucko, S. Vincent, J. De Winter, O. Coulembier, "Photocontrolled Lactide ROP by Light-Regulated Release of Potassium Acetate from an Azobenzene-bridged Crown Ether", *Catal. Sci. Technol.*, **2021**, 11, 6048 – 6052 (I.F. 6.119)

2022 (5)

- (139) S. Moins, O. Coulembier, “*Dimerization of Methyl Acrylate through CO₂-pressurized DBU Mediated Process*”, Asian J. Org. Chem., **2022**, 11(2), e202100734 (I.F. 3.319)
- (140) P. Weber, S. Hoyas, É. Halin, O. Coulembier, J. De Winter, J. Cornil, P. Gerbaux, “*On the conformation of anionic peptoids in the gas phase*”, Biomacromolecules, **2022**, 23(3), 1138 - 1147 (I.F. 6.988)
- (141) C. Fornaciari, D. Pasini, O. Coulembier, “*Controlled Oxyanionic Polymerization of Propylene Oxide: Unlocking the Molecular-Weight Limitation by a Soft Nucleophilic Catalysis*”, Macromol. Rapid Commun., **2022**, 2200424 (I.F. 5.734)
- (142) S. M. Torcasio, R. Oliva, M. Montesi, S. Panseri, G. Bassi, A. Mazzaglia, A. Piperno, O. Coulembier, A. Scala, “*Unprecedented Antitumoral Effects of Novel RGD-decorated Three-armed starPLA-PEG Nanoshuttle Loaded with Docetaxel*”, Biomaterials Advances, **2022**, 140, 213043 (I.F. 7.328)
- (143) M. S. Zaky, A.-L. Wirotius, O. Coulembier, G. Guichard, D. Taton, “*Reaching high stereoselectivity and activity in organocatalyzed ring-opening-polymerization of racemic lactide by the combined use of a chiral (thio)urea and a N-heterocyclic carbene*”, ACS Macro Letters, **2022**, 11, 1148 - 1155 (I.F. 6.903)

2023 (3)

- (144) A. Fernandez-Tena, R. Arpad Pérez-Camargo, O. Coulembier, L. Sangroniz, N. Aranburu, G. Guerrica-Echevarria, G. Liu, D. Wang, D. Cavallo, A. J. Müller, “*Effect of molecular weight on the crystallization and melt memory of poly(ϵ -caprolactones) (PCL)*”, Macromolecules, **2023**, 56, 4602 - 4620 (I.F. 6.057)
- (145) S. Moins, O. Coulembier, “*Accelerated Polymerization of Lactide Driven by a DBU-based Salt and a 15-Crown-5 Ether Sacrificial Kinetic Booster*”, ChemCatChem, **2023**, e202300666 (I.F. 5.501)
- (146) Ch. Fornaciari, V. Lemaure, D. Pasini, O. Coulembier, “*Quasi-Alternating Copolymerization of Oxiranes Driven by a Benign Acetate-based Catalyst*”, Communications Chemistry, **2023**, 6, 235 (I.F. 7.211)

2024 (5)

- (147) P. Bexis, J. T. Husband, O. Coulembier, A. P. Dove, “*Stereocomplexed Functional & Statistical Poly(lactide-carbonate)s via a Simple Organocatalytic System*”, Macromolecules, **2024**, 57(5), 2287-2294 (I.F. 5.5)
- (148) R. Oliva, S. M. Torcasio, O. Coulembier, A. Piperno, A. Mazzaglia, A. Rossi, G. Bassi, S. Panseri, M. Montesi, A. Scala, “*RGD-tagging of star-shaped PLA-PEG Micelles enhances Doxorubicin Efficacy against Osteosarcoma*”, International Journal of Pharmaceutics, **2024**, 657, 124183 (I.F. 5.8)
- (149) J. Delcorps, K. Singh Rawat, M. Wells, E. Ben Ayad, B. Grignard, C. Detrembleur, B. Blankert, P. Gerbaux, V. Van Speybroeck, O. Coulembier, “*Turning carbon dioxide into dialkyl carbonates through guanidinium-assisted S_N2 ion-pair process*”, Cell Reports Physical Science, **2024**, 5, 102057 (I.F. 8.9)
- (150) J. Odent, N. Baleine, S.M. Torcasio, S. Gauthier, O. Coulembier, J.M. Raquez, “*3D-Printed Phenylboronic Acid-bearing Hydrogels for Glucose-Triggered Drug Release*”, Polymers, **2024**, 16, 2502 (I.F. 4.7)
- (151) A. Ben Ayed, J. Delcorps, O. Coulembier, “*Solvent-Free Iodination of Polyethylene via Twin-Screw Extrusion: A Scalable Approach*”, Ind. Eng. Chem. Res., **2024**, 63, 21455 – 21465 (I.F. 3.8)

2025 (4)

- (152) S. Moins, O. Coulembier, "Synergistic Pathways in PLA Breakdown and PTMC Formation: A One-Pot Eutectic-Driven Recycling Mechanism", *Ang. Chem. Int. Ed.*, **2025**, 64(10), e202421150 (I.F. 16.6)
- (153) J. Delcorps, E. Ben Ayed, O. Coulembier, "CO₂-Binding Alcohols as Potential Candidates for Poly(Vinyl Chloride) Upcycling", *Polymer Chemistry*, **2025**, 16, 2923-2932 (I.F. 4.8)
- (154) E. Ben Ayed, J. Delcorps, O. Coulembier, "From Polyethylene to Conjugated Polyenes: A Mechanochemical One-Pot Upcycling Strategy for Selective Functionalization", *Adv. Sustainable Syst.*, **2025**, 9(9), e00571 (I.F. 6.5)
- (155) S. Moins, O. Coulembier, "Reevaluating Lithium Chloride as a Safer Catalyst for Polylactide Synthesis: A Toxicological and Process Perspective", *ACS Chem. Health Saf.*, **2025**, 32(4), 513-521 (I.F. 3.4)

2026 (5)

- (156) S. Moins, O. Coulembier, "Selective Low-Temperature Depolymerization of Highly Transesterified P(LLA-co-CL) Copolymers: Efficient Lactide Recovery and PCL Upcycling", *Macromol. Rapid Commun.*, **2026**, 47(3), e00848 (I.F. 4.3)
- (157) S. Moins, A. Mignot, C. Henoumont, S. Laurent, Ph. Leclère, O. Coulembier, "Tripartite Hydrogen-Bonding as a Driving Force for High-Concentration Cyclization of Poly(L-lactide)", *Chem. Sci.* **2026**, 17, 3804-3809 (I.F. 7.5)
- (158) J. Torres-Rodriguez, C. Fornaciari, R. A. Pérez-Camargo, A. Mugica, M. Zubitur, D. Pasini, O. Coulembier, A. J. Müller, "How Chain Stereoconfiguration and Molecular Weight Influence Poly(propylene oxide) Crystallization", *Eur. Polym. J.*, **2026**, 243, 114464 (I.F. 6.3)
- (159) J. Delcorps, E. Ben Ayed, O. Coulembier, "Boosting PVC Reactivity through Iodination for Sustainable CO₂ Upcycling", *RSC Advances.*, **2026**, 16, 12798-12805 (I.F. 4.6)
- (160) M. A. Aboudzadeh, L. Sangroniz, O. Coulembier, M. Ferranti, S. Costanzo, N. Grizzuti, D. Cavallo, A. J. Müller, "Decoupling the roles of chain length, entanglements and intermolecular interactions on melt memory of semicrystalline homopolymers", *Macromolecules* **2026**, 59, 3371-3383 (I.F. 5.2)
- (161) Y., J. Delcorps, J.-F. Gohy, O. Coulembier, "Turning CO₂ capture into ionic conductivity", *Chem. Commun.* **2026**, in preparation (I.F. 4.18)
- (162) M. Devreux, C. Lassale, A. Mutschler, C. Genevois, F. Couillaud, L. Larbanoix, S. Moins, N. Baleine, O. Coulembier, C. Henoumont, S. Laurent, O. Sandre, "Thermo- and pH-Sensitive Copolymer Self-assemblies for Image-Guided Drug Delivery Monitoring by Fluorescence Optical Imaging: An In vitro and In vivo Proof of Concept", *ACS Appl. Nano Mater.* **2026**, in preparation (I.F. 5.5)
- (163) Ch. Fornaciari, O. Coulembier, D. Pasini, "Pushing Boundaries in Polyether Synthesis: Challenges and Opportunities in Oxyanionic Ring-Opening Polymerization (ROP) of Epoxides", *Chem. Rev.*, **2026**, in preparation (I.F. 55.8)