

# DANIELA PAPPALARDO - CURRICULUM VITAE

## CURRENT POSITION

Associate Professor of Inorganic Chemistry

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- <https://www.unisannio.it/user/560/contatti>
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- [https://womenin3dprinting.com/anna-finne-wistrand-tiziana-fuoco-daniela-pappalarDO-we-share-the-same-passion-for-chemistry-degradable-polymers-and-3d-printing/?fbclid=IwAR21WQmnKdkb4mX8LBatzLvZh-N96JLt\\_xCZStpp4Rsp00OPpmRkh19YxNw](https://womenin3dprinting.com/anna-finne-wistrand-tiziana-fuoco-daniela-pappalarDO-we-share-the-same-passion-for-chemistry-degradable-polymers-and-3d-printing/?fbclid=IwAR21WQmnKdkb4mX8LBatzLvZh-N96JLt_xCZStpp4Rsp00OPpmRkh19YxNw)

## ACADEMIC PREPARATION

- **May 1998**  
Ph.D. in Chemistry (X ciclo) Dipartimento di Chimica, Università degli Studi di Salerno  
Dissertation title: Monocyclopentadienylic titanium complexes and alfa-diimine nickel complexes as catalysts for homogeneous olefins polymerization.  
Advisor: Prof. A. Zambelli
- **24 May, 1994**  
Laurea (M.Phil.) Degree in Chemistry, Università degli Studi di Salerno  
Dissertation title: Cationic zirconium benzyl complexes: synthesis, characterization and reactivity towards olefins. Advisor: Prof. A. Zambelli. Final marks: 110/110 cum laude.

## ACADEMIC AND RESEARCH EXPERIENCES

- February 2005 – present  
Associate Professor of Inorganic Chemistry, Università del Sannio, Benevento
- July 1996 – January 2005  
Assistant professor of Inorganic Chemistry, Facoltà di Scienze MMFFNN, Università del Sannio.
- September 2014 – October 2017  
Part-time guest professor at KTH, Royal Institute of Technology, Department of Fibre and Polymer Technology, Stockholm, Sweden, as a leader of the project entitled “Biodegradable functionalized materials for applications in tissue engineering”, funded by VINNOVA, Mobility for Growth, and by the Marie Curie Actions FP7-PEOPLE-2011-COFUND (GROWTH 291795).

- Co-founder of the Swedish spin off company *Akira Science AB*, and in the board of the directors from February 2019 to May 2022.
- September-October 2010 and January-March 2011  
Guest professor at the KTH, Royal Institute of Technology, Department of Fibre and Polymer Technology, in the ambit of a collaboration with prof. Ann-Christine Albertsson.
- February 2006.  
Scientific visitor at the High Resolution NMR Centre, Vrije Universiteit, Brussel, Belgium, in the ambit of a collaboration with prof. Rudolph Willem.
- November 1998 – August 1999  
Scientific guest at The School of Chemistry, University of Leeds, UK in the laboratory headed by prof. Manfred Bochmann.

## ACADEMIC QUALIFICATION

- National scientific habilitation (ASN) as Full Professor in the sector 03/B1 " Fondamenti delle Scienze Chimiche e Sistemi Inorganici " - Call 2016 (D.D. 1532/2016)
- National scientific habilitation (ASN) as Full Professor in the sector 03/B2 "Fondamenti Chimici delle Tecnologie" - Call 2013 (DD n.161/2013)

## TEACHING COURSES AT UNIVERSITA' DEL SANNIO:

- Inorganic and General Chemistry (8 CFU)
- Inorganic and General Chemistry with Elements of Organic Chemistry (9 CFU)

## SUPERVISOR ACTIVITY

- Tutor of Nancy Ferrentino, PhD in "Sciences and Technologies for the Environment and Health", XXXVII cycle, University of Sannio, from November 2021 to today.
- Tutor of Marco Naddeo, PhD in "Sciences and Technologies for the Environment and Health", XXXIII cycle, University of Sannio, October 2017 - June 2021.
- Co-tutor of Tove Kivijärvi PhD student at KTH, Royal Institute of Technology, Department of Fiber and Polymer Technology, Stockholm, Sweden (October 2017- November 2022).
- Co-tutor of Jenny Fagerland, PhD student at KTH, Royal Institute of Technology, Stockholm, Sweden, (February 2015 - January 2018).
- Tutor of Tiziana Fuoco, PhD in Chemistry, University of Salerno, XIV cycle (New series), February 2013 - March 2016.
- Scientific coordinator of the Go for it 2020 project funded by the CRUI foundation for an annual research grant (31 March 2021 - 31 March 2022). Research title Degradable polymeric materials and from renewable resources for applications in 3D printing, SSD CHIM03. Research fellow Dr. Balakondareddy Sana.

- Scientific coordinator of a research fellow (Dr. Angelo Meduri) in the CHIM03 sector at the University of Sannio (January 2013-December 2013).

## **AWARD**

Winner of the Prize “G. Stampacchia” 1996 from the University “La Sapienza” of Roma, for the best first scientific paper of a young chemist researcher.

## **GRANTS**

- i) From September 2014 to October 2017, DP was part-time guest researcher at KTH, Royal Institute of Technology, Department of Fibre and Polymer Technology, Stockholm, Sweden, as a leader of the project “Biodegradable functionalized materials for applications in tissue engineering”, funded by VINNOVA Mobility for Growth (Grant Number 2013-04323) and by the Marie Curie Actions FP7-PEOPLE-2011-COFUND (GROWTH 291795).
- ii) From May to September 2013, DP was project leader for VINNMER INCOMING - PLANNING GRANT 2013-2015 “Bionedbrytbara funktionaliserade material för tillämpningar inom vävnadsregenerering” (Grant number 2013-01429).
- iii) DP has been principal investigator for research projects FAR (Finanziamento di Ateneo per la Ricerca), funded by the Università del Sannio, in the years 2002 – 2018.
- iv) In 2001, DP was principal investigator for the “Young research project” (PROGETTO GIOVANI RICERCATORI 2001) funded by the Università del Sannio.
- v) Participation to the followings Projects of Significant National Interest (Progetti di Ricerca di Interesse Nazionale, PRIN):
  - PRIN 2002, title: “Fine control of the microstructure and chemical properties of hydrocarbon homopolymers and copolymers by metallorganic catalysts”
  - PRIN 2004, title: “Organometallic polymerization catalysis for elastomers and nanostructured materials”
  - PRIN 2010, title: “Nanostructured polymeric materials with tailored molecular and crystalline structures, for advanced technologies and for the environment”
- vi) Participation to european “Research Training Network Project: New Polyolefin Materials via Metal Catalysed Copolymerisation”, coordinator prof. Manfred Bochmann, for the period 1999-2002.

## **MANAGEMENTS ACTIVITIES**

- Member of the Academic Senate of the University of Sannio (from January 2020 to today)
- "Delegato alla Qualità" of the Department of Science and Technology (from January 2021)
- Member of the "Presidio di Qualità" of the University of Sannio (December 2017 - December 2019)
- Member of the Board of Professors of the Research Doctorate in Sciences and Technologies for Health and the Environment, University of Sannio (2014-2018; from November 2022 to date)

## **PARTICIPATION IN SCIENTIFIC SOCIETIES AND EDITORIAL COMMITTEES**

- Head of office representative for the University of Sannio for the Inorganic Chemistry Division of the Italian Chemical Society (SCI).
- Member of "European Biomaterials Society"
- Member of the Reviewer Editorial Board of the scientific journal Frontiers in Polymer Chemistry ([http://www.frontiersin.org/Polymer\\_Chemistry/editorialboard](http://www.frontiersin.org/Polymer_Chemistry/editorialboard))

## **RESEARCH INTERESTS**

The main research interest is in the area of polymer science. Initial studies were related to polyolefins, by far the most important class of commercial synthetic polymers. Main topic has been the Ziegler-Natta homogeneous olefin polymerization catalysis, which includes the synthesis and the characterization of catalytically active organometallic complexes, the study of the mechanism of polymerization also by the aid of isotopic labelling techniques, the stereochemical aspects of the polymerization. Remarkable results are the studies on alfa-diimine Ni and Fe based systems, on group 4 transition metal systems bearing phenoxyimine or nitrogen based polydentate ligands, and on neutral and cationic aluminium complexes.

In the last decade the field of research has been expanded to the aliphatic polyesters; the development of catalysts able to produce stereoregular polymers or block and random copolymers having controlled architecture have been the main achievements. Group 3 metal, Sn and Al complexes bearing "unconventional" ligands were synthesized and tested in the ROP of rac-lactide, and rac- $\beta$ -butyrolactone or in the copolymerization of rac-lactide and caprolactone, and glycolide with lactide. Heterotactic or prevalingly isotactic PLA's and either block or random copolymers, depending on the metal initiator and the reaction conditions were obtained. Syndiotactic enriched poly(hydroxybutyrate) was also obtained.

New branches of research are related to the synthesis and characterization of functionalized aliphatic polyesters and degradable and biocompatible amphiphilic copolymers for applications in biomedical fields, i.e. in drug delivery or as porous scaffolds for tissue engineering applications. These competences were developed during the several periods of permanence of DP at KTH, Royal Institute of Technology, Department of Fibre and Polymer Technology, Stockholm, Sweden, as a leader of the project "Biodegradable functionalized materials for applications in tissue engineering" co-founded by VINNOVA Mobility for Growth (Grant Number 2013-04323) and by the Marie Curie Actions FP7-PEOPLE-2011-COFUND (GROWTH 291795).

## **PUBLICATIONS AND REVIEW ACTIVITIES**

65 published contributions on peer-reviewed journal in the field of macromolecular chemistry, organometallic chemistry, and polymerization catalysis, 1 Italian patent, 1 US patent. Several presentations at national and international congresses and workshops.

Reviewer for Macromolecules, Biomacromolecules, Chemical Review, Macromolecular Chemistry and Physics, European Journal of Inorganic Chemistry, Journal of Applied Polymer Science, Organometallics.

Reviewer for research proposal submitted to the executive government agency of National Science Centre of Poland (Narodowe Centrum Nauki - NCN; <http://www.ncn.gov.pl>).

## SEMINARS AND LECTURES WITH INVITATION

1. Jawaharlal, Nehru University, New Delhi, India, 12 August 2010 - "Synthesis of Aliphatic Polyesters by Ring-Opening Polymerization of  $\epsilon$ -Caprolactone and L- and D,L Lactides "
2. Università di Salerno, Dipartimento di Chimica e Biologia, 30 September 2011 - "Synthesis of aliphatic polyesters by well-defined metal complexes"
3. Plenary lecture at Nordic Polymer Days, 15-17 June 2011, KTH, Royal Institute of Technology, Stockholm. "Synthesis of aliphatic polyesters by organometallic catalysis"
4. KTH, Royal Institute of Technology, Stockholm, 9 September 2016 Lesson for PhD students, course in Polymer Chemistry- "Coordination polymerization, Ziegler-Natta systems".
5. Keynote speaker at European Polymer Federation Conference, EPF 2017; 2-7 July 2017, Lyon, France. "Controlled And Multipurpose Ring-Opening Polymerization Of Various Cyclic Esters By Salicylaldiminato Aluminum Alkyl Complexes"
6. Invited speaker at MIPOL2018 ([http://www.mipol.unimi.it/i\\_speakers.html](http://www.mipol.unimi.it/i_speakers.html)) Milano, Italy, 14-16 February 2018. Title "Thiol-functionalized aliphatic poly(esters): a versatile platform for biomedical applications"
7. KTH, Royal Institute of Technology, Stockholm, Lesson for PhDs students, course in Polymer Chemistry, 22 March 2019 "Coordination polymerization, Ziegler-Natta system- From Heterogeneous Systems to Homogeneous Single-Sites Catalysts, and Beyond".
8. Università di Salerno, Fisciano (SA), Italy, NEC POSSUNT OCULI, Microsimposio in ricordo del professore Immirzi, 28 October 2019 Invited speaker. Title: "Il prof. Immirzi e i trucchi intelligenti"
9. Online lesson for PhD students, course in Polymer Chemistry, invited by prof. Ulrica Edlund from KTH, Royal Institute of Technology, Stockholm, 23 September 2022. Title: "Coordination polymerization, Ziegler-Natta systems".
10. Invited seminar at King Abdullah University of Science and Technology (KAUST), Thuwal 23955-6900, Kingdom of Saudi Arabia, by prof. Sanjay Rastogi, 16 November 2022. Title: "Synthesis of aliphatic polyesters by single-site catalysts"

## PUBLICATIONS LIST

- 1) C. Pellecchia, A. Immirzi, D. Pappalardo, A. Peluso, "A novel  $\eta^7$  coordination mode of a benzyl ligand in a cationic zirconium complex", *Organometallics*, 1994, 13, 3773-3775.
- 2) C. Pellecchia, D. Pappalardo, J. A. M. van Beek, "Cationic zirconium benzyl complexes as catalysts for olefin polymerization: a comparison among dicyclopentadienyl, monocyclopentadienyl and Cp-free

derivatives", *Macromolecular Symposia*, 1995, 89 (Synthetic, Structural and Industrial Aspects of Stereospecific Polymerization), 335-44.

3) C. Pellecchia, D. Pappalardo, L. Oliva, A. Zambelli, " $\eta^5$ -C<sub>5</sub>Me<sub>5</sub>TiMe<sub>3</sub>-B(C<sub>6</sub>F<sub>5</sub>)<sub>3</sub>: a true Ziegler-Natta catalyst for the syndiotactic-specific polymerization of styrene", *J. Am. Chem. Soc.* 1995, 117, 6593-6594.

4) C. Pellecchia, D. Pappalardo, M. D'Arco, A. Zambelli, "Alternating ethylene-styrene copolymerization with a methylaluminoxane-free half-titanocene catalyst", *Macromolecules*, 1996, 29, 1158.

5) C. Pellecchia, A. Zambelli, L. Oliva, D. Pappalardo, "Syndiotactic-Specific Polymerization of Propene with Nickel-Based Catalysts. 2. Regiochemistry and Stereochemistry of the Initiation Steps", *Macromolecules*, 1996, 29, 6990.

6) D. Pappalardo, M. Mazzeo, C. Pellecchia, "Polymerization of ethylene with nickel  $\eta^2$ -diimine catalysts", *Macromol. Rapid Commun.*, 1997, 18, 1017.

7) C. Pellecchia, A. Zambelli, M. Mazzeo, D. Pappalardo, "Syndiotactic-Specific Polymerization of Propene with Nickel-Based Catalysts. 3. Polymer end-groups and regiochemistry of propagation", *J. Mol. Catal., A: Chem.*, 1998, 128, 229.

8) C. Pellecchia, M. Mazzeo, D. Pappalardo, "Isotactic-specific polymerization of propene with an iron-based catalyst: polymer end groups and regiochemistry of propagation", *Macromol. Rapid Commun.*, 1998, 19, 651.

9) C. Pellecchia, D. Pappalardo, and Gert-Jan Gruter, "Branched polyethylene produced by a half-titanocene catalyst", *Macromolecules*, 1999, 32, 4491.

10) C. Pellecchia, D. Pappalardo, L. Oliva, M. Mazzeo, G.J. Gruter, "Selective co-oligomerization of ethylene and styrene by half-titanocene catalyst and synthesis of polyethylenes with 4-aryl-1-butyl branches", *Macromolecules*, 2000, 33, 2807.

11) D. Pappalardo, M. Mazzeo, S. Antinucci, and C. Pellecchia, "Some evidence of a dual stereodifferentiation mechanism in the polymerization of propene by a-diimine nickel catalysts", *Macromolecules*, 2000, 33, 9483.

12) M. Lamberti, D. Pappalardo, A. Zambelli, C. Pellecchia, "Syndiospecific polymerization of propene promoted by bis(salicylaldiminato)titanium catalysts: regiochemistry of monomer insertion and polymerization mechanism", *Macromolecules*, 2002, 35, 658-663.

13) D. Pappalardo, C. Tedesco, C. Pellecchia, "New neutral and cationic dialkylaluminum complexes bearing imino-amide or imino-phenoxide ligands: synthesis, characterization and reactivity with olefins", *Eur. J. Inorg. Chem.*, 2002, 621-628.

14) F.Q. Song, D. Pappalardo, A. F. Johnson, B. Rieger, M. Bochmann, "Derivatization of propene/methyloctadiene copolymers: a flexible approach to side-chain-functionalized polypropenes", *J. Polym. Sci. Part A: Polym. Chem.*, 2002, 40, 1484-1497.

15) J.A. Lopez-Sanchez, M. Lamberti, D. Pappalardo, C. Pellecchia, "Polymerization of conjugated dienes promoted by bis(phenoxyimino)titanium catalysts", *Macromolecules*, 2003, 36, 9260.

16) D. Pappalardo, M. Mazzeo, P. Montefusco, C. Tedesco and C. Pellecchia, "Neutral and cationic aluminum methyl complexes of 2-anilino-1-propenone ligands: synthesis, characterization, and reactivity toward ethylene", *Eur. J. Inorg. Chem.*, 2004, 1292-1298.

- 17) M. Lamberti, D. Pappalardo, M. Mazzeo, C. Pellecchia, "Effects of the reaction conditions on the syndiospecific polymerization of propene promoted by bis(phenoxy)iminetitanium catalysts", *Macromol. Chem. Phys.*, 2004, 486, 205.
- 18) M. Lamberti, M. Mazzeo, D. Pappalardo, A. Zambelli, C. Pellecchia, "Polymerization of Propene by Post-Metallocene Catalysts", *Macromol. Symp.*, 2004, 213, 235-251.
- 19) L. Annunziata, D. Pappalardo, C. Tedesco, C. Pellecchia, "Octahedral Bis(Phenoxy-Imine)Tin (IV) Alkyl Complexes: Synthesis, Characterization and Reactivity Toward Ionizing Species and Ethylene", *Organometallics*, 2005, 24, 1947-1952.
- 20) L. Annunziata, D. Pappalardo, C. Tedesco, S. Antinucci, C. Pellecchia, "Bis(2,4,6-triisopropylphenyl)Tin(IV) Compounds: Synthesis, Single-Crystal X-ray Characterization and Reactivity toward Ionizing Species and Polar Monomers", *J. Organ. Chem.*, 2006, 691, 8, 1505-1514.
- 21) D. Pappalardo, L. Annunziata, C. Pellecchia, M. Biesemans, R. Willem, "Ring-Opening Polymerization of  $\epsilon$ -Caprolactone by Benzyl-Alkoxy-Bis(2,4,6-triisopropylphenyl)Tin Compounds: Observation of the Insertion Product into the Sn-OMe bond", *Macromolecules*, 2007, 40, 1886-1890.
- 22) L. Annunziata, D. Pappalardo, C. Tedesco, C. Pellecchia, "Octahedral Alkylbis(phenoxy-imine)tin(IV) Complexes: Effect of Substituents on the Geometry of the Complexes and Their Reactivity Toward Ionizing Species and Ethylene", *Eur. J. Inorg. Chem.*, 2007, 5752-5759.
- 23) Mina Mazzeo, Marina Lamberti, Daniela Pappalardo, Liana Annunziata, Claudio Pellecchia, "Polymerization of  $\alpha$ -olefins promoted by zirconium complexes bearing bis(phenoxy-imine) ligands with ortho-phenoxy halogen substituents", *Journal of Molecular Catalysis A: Chemical*, 2009, 297, 9-17.
- 24) Daniela Pappalardo, Claudio Pellecchia, Giuseppe Milano, Massimo Mella, "Reactivity of a Cationic Alkyl Amino-Functionalized Cyclopentadienyl Aluminum Compound with Olefins: NMR Observation and Computational Investigation of the Single Propene Insertion Product into an Al-C Bond", *Organometallics*, 2009, 28, 2554-2562.
- 25) Liana Annunziata, Daniela Pappalardo, Consiglia Tedesco, and Claudio Pellecchia, "Bis[(amidomethyl)pyridine] Zirconium(IV) Complexes: Synthesis, Characterization, and Activity as Olefin Polymerization Catalysts", *Organometallics*, 2009, 28 (3), 688-697.
- 26) Marina Lamberti, Mina Mazzeo, Daniela Pappalardo, Claudio Pellecchia, "Mechanism of stereospecific polymerization of  $\alpha$ -olefins by late-transition metal and octahedral group 4 metal catalysts", *Coordination Chemistry Review*, 2009, 253, 2082-2097.
- 27) Liana Annunziata, Daniela Pappalardo, Consiglia Tedesco, Claudio Pellecchia, "Isotactic-specific polymerization of propene by a Cs-symmetric zirconium(IV) complex bearing a dianionic tridentate [-NNN-] amidomethylpyrrolidopyridine ligand", *Macromolecules*, 2009, 15, 5572-5578.
- 28) Daniela Pappalardo, Liana Annunziata, Claudio Pellecchia, "Living Ring-Opening homo- and co-Polymerization of  $\epsilon$ -Caprolactone, L- and D,L-Lactides by Dimethyl(salicylaldiminato)Aluminum Compounds", *Macromolecules*, 2009, 42, 6056-6062.
- 29) Giuliana Gorrasi, Luigi Vertuccio, Liana Annunziata, Claudio Pellecchia, Daniela Pappalardo, "Correlations between microstructural characterization and thermal properties of well defined poly( $\epsilon$ -caprolactone) samples by ring opening polymerization with neutral and cationic bis(2,4,6-triisopropylphenyl)tin(IV) compounds", *Reactive and Functional Polymer*, 2010, 70, 151-158.
- 30) Lorella Izzo, Daniela Pappalardo, "Tree-Shaped" Copolymers Based on Poly(ethylene glycol) and Atactic or Isotactic Polylactides: Synthesis and Characterization", *Macromol. Chem. Phys.*, 2010, 211, 2171-2178.

- 31) Liana Annunziata, Stefania Pragliola, Daniela Pappalardo, Consiglia Tedesco, Claudio Pellecchia, "New (Anilidomethyl)pyridine Titanium(IV) and Zirconium(IV) Catalyst Precursors for the Highly Chemo- and Stereoselective cis-1,4-Polymerization of 1,3-Butadiene", *Macromolecules* 2011, 44, 1934-1941.
- 32) Ilaria D'Auria, Mina Mazzeo, Daniela Pappalardo, Marina Lamberti, Claudio Pellecchia, "Ring-Opening Polymerization of Cyclic Esters Promoted by Phosphido-Diphosphine Pincer Group 3 Complexes", *Journal of Polymer Science, part A, Polymer Chemistry* 2011, 49, 403-413.
- 33) Daniela Pappalardo, Sofia Målberg, Anna Finne-Wistrand, Anne-Christine Albertsson, "Synthetic Pathways Enables the Design of Functionalized Poly(lactic acid) with Pendant Mercapto Groups", *Journal of Polymer Science, part A, Polymer Chemistry* 2012, 50, 792-800.
- 34) Gang Li, Marina Lamberti, Mina Mazzeo, Daniela Pappalardo, Giuseppina Roviello, and Claudio Pellecchia "Anilidopyridyl-Pyrrolide and Anilidopyridyl-Indolide Group 3 Metal Complexes: Highly Active Initiators for the Ring-Opening Polymerization of rac-Lactide" *Organometallics* 2012, 31, 1180-1188.
- 35) Renata Adami, Sara Liparoti, Lorella Izzo, Daniela Pappalardo, Ernesto Reverchon, "PLA-PEG copolymers micronization by Supercritical Assisted Atomization", *The Journal of Supercritical Fluids*, 2012, 72, 15-21.
- 36) Giuliana Gorrasi, Daniela Pappalardo, Claudio Pellecchia "Polymerization of  $\epsilon$ -caprolactone by sodium hydride: from the synthesis of the polymer samples to their thermal, mechanical and barrier properties" *Reactive and Functional Polymer*, 2012, 72 752–756.
- 37) Marina Lamberti, Ilaria D'Auria, Mina Mazzeo, Stefano Milione, Valerio Bertolasi, and Daniela Pappalardo,, "Phenoxy-Thioether Aluminum Complexes as  $\epsilon$ -Caprolactone and Lactide Polymerization Catalysts", *Organometallics*, 2012, 31 (3), 1180-1188.
- 38) Gang Li, Marina Lamberti, Daniela Pappalardo, Claudio Pellecchia, "Random Copolymerization of  $\epsilon$ -Caprolactone and Lactides Promoted by Pyrrolylpyridylamido Aluminum Complexes", *Macromolecules* 2012, 45, 8614-8620.
- 39) Gang Li, Marina Lamberti, Mina Mazzeo, Daniela Pappalardo, Claudio Pellecchia, "Isospecific polymerization of propene by new indolyl-pyridylamido Zr(IV)Catalysts", *Journal of Molecular Catalysis A: Chemical*, 2013, 370, 28– 34.
- 40) Daniela Pappalardo, Massimo Bruno, Marina Lamberti, Claudio Pellecchia "Ring-Opening Polymerization of Racemic  $\epsilon$ -Butyrolactone Promoted by Salan-and Salen-type Yttrium Amido Complexes" *Macromol. Chem. Phys.*, 2013, 1965-1972.
- 41) Daniela Pappalardo, Massimo Bruno, Marina Lamberti, Mina Mazzeo, Claudio Pellecchia, "Ring-Opening Polymerization of  $\epsilon$ -caprolactone and lactide Promoted by Salan-and Salen-type Yttrium Amido Complexes", *Journal of Molecular Catalysis A: Chemical*, 2013, 379, 303– 308.
- 42) Cinzia Garofalo, Giovanna Capuano, Rosa Sottile, Rossana Talerico, Renata Adami, Ernesto Reverchon, Ennio Carbone, Lorella Izzo, and Daniela Pappalardo, "Different Insight into Amphiphilic PEG-PLA Copolymers: Influence of Macromolecular Architecture on the Micelle Formation and Cellular Uptake", *Biomacromolecules*, 2014, 15 (1), 403–415.
- 43) Angelo Meduri, Tiziana Fuoco, Marina Lamberti, Claudio Pellecchia, and Daniela Pappalardo, "Versatile Copolymerization of Glycolide and rac-Lactide by Dimethyl(salicylaldiminato)aluminum Compounds", *Macromolecules*, 2014, 47 (2), 534–543.
- 44) Alessia Pilone, Nicolina De Maio, Konstantin Press, Vincenzo Venditto, Daniela Pappalardo, Mina Mazzeo, Claudio Pellecchia, Moshe Kol and Marina Lamberti, "Ring-opening homo- and co-polymerization



of lactides and  $\epsilon$ -caprolactone by salalen aluminum complexes", Dalton Transactions, 2015, 44, 2157-2165.

45) Tiziana Fuoco, Angelo Meduri, Marina Lamberti, Vincenzo Venditto, Claudio Pellecchia, Daniela Pappalardo, "Ring-opening polymerization of  $\omega$ -6-hexadecenlactone by a salicylaldiminato aluminum complex: a route to semicrystalline and functional poly(ester)s", Polymer Chemistry, 2015, 6, 1727 – 1740.

46) Tiziana Fuoco, Angelo Meduri, Marina Lamberti, Claudio Pellecchia, Daniela Pappalardo, "Copolymerization and terpolymerization of glycolide with lactones by dimethyl(salicylaldiminato)aluminum compounds" J. Appl. Polym. Sci. 2015, 42567(DOI: 10.1002/APP.42567)

47) Tiziana Fuoco, Anna Finne-Wistrand, Daniela Pappalardo, "A route to aliphatic poly(ester)s with thiol pendant groups: from monomer design to editable porous scaffolds", Biomacromolecules, 2016, 17 (4), pp 1383–1394, DOI: 10.1021/acs.biomac.6b00005

48) Jenny Fagerland, Anna Finne-Wistrand, Daniela Pappalardo, "Modulating the thermal properties of poly(hydroxybutyrate) by the copolymerization of rac- $\beta$ -butyrolactone with lactide", New J.Chem., 2016, 40, 7671, DOI: 10.1039/c6nj00298f.

49) Giuliana Gorrasi, Angelo Meduri, Paola Rizzarelli, Sabrina Carroccio, Giusy Curcuruto, Claudio Pellecchia, Daniela Pappalardo "Preparation of poly(glycolide-co-lactide)s through a green process: Analysis of structural, thermal, and barrier properties" Reactive and Functional Polymers, 2016, 109, 70–78.

50) Tiziana Fuoco, Daniela Pappalardo "Aluminum Alkyl Complexes Bearing Salicylaldiminato Ligands: Versatile Initiators in the Ring-Opening Polymerization of Cyclic Esters" Catalysts, 2017, 7, 64; doi:10.3390/catal7020064

51) T. Fuoco, D. Pappalardo A. Finne-Wistrand, "Redox-Responsive Disulfide Cross-Linked PLA-PEG Nanoparticles" Macromolecules, 2017, 50, 7052–7061; doi 10.1021/acs.macromol.7b01318

52) Jenny Fagerland, Daniela Pappalardo, Björn Schmidt, Per-Olof Syrén, Anna Finne-Wistrand, "Template-assisted enzymatic synthesis of oligopeptides from a polylactide chain", Biomacromolecules, 2017, 18 (12), pp 4271–4280; DOI 10.1021/acs.biomac.7b01315

53) Andrea Sorrentino, Giuliana Gorrasi, Valeria Bugatti, Tiziana Fuoco, Daniela Pappalardo "Polyethylene-like macrolactone-based polyesters: rheological, thermal and barrier properties", 2018, 17, 380-390, Materials Today Communication, DOI: 10.1016/j.mtcomm.2018.10.001

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