

CURRICULUM VITAE

FRANCO DOMINICI

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PERSONAL DATA

Status: Married

Nationality: Italian

Date of Birth: 05/11/1970

Place of Birth: Terni

EDUCATION

- PhD Degree: International Doctorate in Civil and Environmental Engineering - (XXX Cycle) - University of Perugia – (2017) with the thesis: "Study and characterization of thermo-mechanical properties of fiber-reinforced and nano-structured composites based on engineering and high performance polymeric matrices for high temperature applications". Supervisor: Prof. Luigi Torre.
- Degree in Industrial Engineering from the University of Perugia (2014) with discussion of the thesis: "Study and characterization of nanocomposites based on thermoplastic technopolymers matrix for high temperature applications". Supervisor: Prof. Luigi Torre.
- Bachelor's Degree in materials engineering from the University of Perugia on 25/07/08 with the following thesis: "Use of nanofillers in water-based coatings for wood; analysis of properties and processability". Supervisors: Prof. José M. Kenny, Dr. Andrea Terenzi
- High school diploma achieved at Liceo Scientifico R. Donatelli (Terni) in 1989.

RESEARCH INTERESTS

- Processing and characterization of thermoplastic and thermosetting polymers
- Processing and characterization of nanocomposites based on engineering and high-performance polymeric matrices
- Processing and characterization of nanocomposites based on biopolymeric thermoplastic matrices

WORK EXPERIENCE

01/12/2017 – Present: Research grant at the University of Perugia - Department of Civil and Environmental Engineering.

01/11/2014 – 31/10/2017: PhD scholarship at the University of Florence - Department of Civil and Environmental Engineering.

16/04/2014 – 31/10/2014: Contract with National Interuniversity Consortium of Materials Science and Technology INSTM as part of the European project "ECNP-GROWTH" for research and dissemination activities related to industrial technological needs in the frame of nanostructured polymeric materials.

01/03/2013 - 31/03/2014: Contract with National Interuniversity Consortium of Materials Science and Technology INSTM as part of the European project "ECNP-GROWTH" for consolidation of networking activities.

01/01/2013 – 28/02/2013: Contract with ECNP Scarl (European Center for Nanostructured polymers) as part of the the European project ECNP GROWTH (Support to Networks of Excellence with durable integrated structures, Consolidation of The European Centre for Nanostructured Polymers)

01/01/2012 – 31/12/2012: Research contract with the University of Perugia for the study and characterization of nanocomposites based on polyetheretherketone (PEEK) matrix for high temperature applications"

19/07/2011 – 31/12/2011: Contract with ECNP Scarl (European Center for Nanostructured polymers) as part of the European project POCO (Carbon Nanotube Confinement Strategies to Develop Novel Polymer Matrix Composites)

01/07/2010 – 30/06/2011: Research contract for the activities related to the European project Hivocomp "Advanced materials enabling HIgh-VOLume road transport applications of lightweight structural COMPOSITE parts"

01/05/2009 - 30/06/2010: Research contract with the MDP srl (Materials, Design & Processing srl, spin off company of the University of Perugia) for the development of biodegradable nanocomposites: processability and final properties.

01/12/2008 - 30/04/2009: Research contract with ECNP Scarl (European Center for Nanostructured polymers) in the frame of the Multihybrids project "Innovative sensor-based processing technology of nanostructured multifunctional hybrids and composites" for the processing optimization of nanocomposites production.

ACTIVITY OF RESEARCH and COORDINATION of EUROPEAN PROJECTS

- Participation in the technical staff of the following European projects in FP5, FP6 and FP7.

- BARBARA (Biopolymers with Advanced Functionalities for Building and Automotive Parts Processed Through Additive Manufacturing). European Union's Horizon 2020 research and innovation programme (Grant Agreement No. 745578).
- POLYMAGIC (Reference Number: project4128): Biodegradable PLA composites reinforced with micro and nano Mg particles: optimisation of processing and design, and scale-up of temporary implants. M-ERA.NET Joint Call 2016 (High performance synthetic and biobased composites)
- ECNP-GROWTH: Consolidation of the European Centre for Nanostructured Polymers FP7-NMP-2011-CSA
- POCO - Carbon Nanotube Confinement Strategies to Develop Novel POLymer Matrix COMposites THEME NMP-2007-2.1-1 - Nanostructured polymer-matrix composites
- COMPANOCOMP - MULTISCALE COMPUTATIONAL APPROACH TO THE DESIGN OF POLYMER-MATRIX NANOCOMPOSITES THEME [NMP.2011.1.4-5] Multiscale Modelling as a Tool for Virtual Nanotechnology Experimentation (Coordinated call with Russia)
- HIVOCOMP: Advanced materials enabling HIGH-VOLUME road transport applications of lightweight structural COMPOSITE parts FP7-NMP, NMP-2009-2.5-1, Large-scale integrating project
- POR UMBRIA FSE 2007-2013 Asse II "Occupabilità", Obiettivo specifico "e" - Asse IV "Capitale Umano", Obiettivo specifico "I", Bando finalizzato al potenziamento dell'attività di ricerca e di trasferimento tecnologico nelle imprese, nelle università, nelle agenzie di ricerca pubbliche e private, nei centri di ricerca pubblici e privati e nei poli d'innovazione.
- Collaboration for research and consulting with local firms as part of regional projects: Projects Vision (CF, Red-breasted, CONART, Umbria Plasfor)
- Industrial projects and consulting services for the process of polymeric materials (CF, Collerosso, Meraklon, Bayer Sheet Europe, Tarkett Sommer, Polycart, IPI)
- Advice for companies that are part of the extra-regional industrial network (ICA, Cozzani, Fornaci DCB, Guala Closures, Pelliconi)
- Participation in the technical staff of reference for the following European projects with participation of MDP srl:

Participation in the technical staff of the ESA project LET EMS 2009 Contract Number 22875/09/NL/VS - Carbon Based Adhesive

PARTICIPATION TO CONFERENCES

9th International conference on "times of polymers and composites: from Aerospace to Nanotechnology - 17-21 June 2018 – Ischia – Italy

1) Oral Communication: Influence of gallic acid and umbelliferone on structural and functional properties of poly(vinyl alcohol-co-ethylene) films for food packaging, F. Luzi, D. Puglia, F. Dominici, and L. Torre.

6th International Congress I+D+i – Creando sinergias – UPV - Campus de Alcoi EPSA - 12 July 2016 – Alcoy – Spain

1) Oral Communication: Improvement of the mechanical properties of Arboform with the use of vegetable oil, F. Dominici, M.D. Samper, A. Carbonell, J. Lopez

2) Poster: Mejora de las propiedades mecanicas del Arboform con el empleo de aceite vegetal, F. Dominici, M.D. Samper, A. Carbonell-Verdù, J. Lopez-Martinez

4th International Conference on Biodegradable and Biobased Polymers – BIOPOL 2013, 1-3 october – Rome – Italy

1) Oral Communication: Influence of thymol and silver nanoparticles on the biodegradation of nanobiocomposites based on poly(lactic acid): thermal and morphological properties, M. Ramos, E. Fortunati, F. Dominici, M. Peltzer, A. Jiménez, M.C. Garrigós J.M. Kenny

2) Poster: Plasticized pla-phb blends reinforced with cellulose nanocrystals, Arrieta M.P., Fortunati E., Dominici F., Rayón E., López J., Kenny J.M.

3) Poster: Combined effect of cellulose nanocrystals extracted from phormium tenax leaves and limonene on the properties of pla films, E. Fortunati, D.Puglia, F. Luzi, F. Dominici, C. Santulli, L. Torre, J.M. Kenny

4) Poster: Degradation of nano-biocomposites based on active poly(lactic acid): physical and thermal properties, M. Ramos, E. Fortunati, F. Dominici, M. Peltzer, A. Jiménez, M.C. Garrigós, J.M. Kenny

5) Poster: multifunctional composites based on biopolymers and biobased additives for food packaging applications, I. Armentano, E. Fortunati, F. Dominici, F. Luzi, N. Burgos, A. Jimenez, J.M. Kenny, J. Ahn, S. Kang, M. Kim, K. Yoon

**Third International Symposium: Frontiers in Polymer Science
21-23 May 2013, Melia Sitges, Spain**

1) Poster: Development and characterization of novel nano-biocomposite films based on poly(lactic acid) with thymol and silver nanoparticles as active additives, M. Ramos, E. Fortunati, F. Dominici, M. Peltzer, A. Jiménez, M.C. Garrigós J.M. Kenny

2) Poster, PCL/PLLA polymer blends: from nano characterization to macro properties, Iván Navarro-Baena, Agnieszka Terjack, Franco Dominici, José M. Kenny, Laura Peponi

**20th Convegno Italiano di Scienza e Tecnologia delle Macromolecole
4-8 Settembre 2011 – Terni – Italy**

1) Oral communication

Processing and rheological characterization of peek nanocomposites

A. Terenzi, A. Iannoni, F. Dominici. L. Torre, J. M. Kenny

DIRECTION OF DEGREE THESES

- 1) Assessment of the colorability of a biopolymeric matrix using nanofillers functionalized at different pH with natural anthocyanins. (D. Casadei - 2019)
- 2) Production and characterization of polymer blends based on plasticized wheat flour and polybutylene succinate copolymers for applications in flexible packaging (M. Balducci - 2019)
- 3) Design and processing of biodegradable composite materials based on polylactic acid and reinforced with micro and nano magnesium particles and their salts (G. Camuzzi - 2018)
- 4) Production and characterization of polyolefin blends with improved hydrophilicity (G. De Santis - 2018)
- 5) Technical composite materials for extreme temperature and pressure applications (L. Triola - 2017)
- 6) Modification of tactile properties of polypropylene fibers additived with softeners (R.Maccaglia - 2017)
- 7) Natural fiber-reinforced composites based on environmentally sustainable thermosetting matrix (S.Cerza - 2017)

EVALUATION OF DOCTORAL THESES

- 1) Thesis: Monitoring of the parameters of synthesis of poly(glycerol sebacate) and influence on the physicochemical and biological properties of its elastomer.
PhD Student: Rubén Martín Cabezuelo - PhD in Biotechnology (June 2020)
- 2) Thesis: Development and optimisation of new high environmental performance polymeric materials, blends and compounds from polyesters and polyamides from renewable resources of interest to the packaging sector
Doctoral Candidate: Luis Jesús Quiles Carrillo - PhD in Industrial Engineering and Production (May 2020)

3) Thesis: Halloysite nanotubes/hydroxyapatite nanocomposites as hard tissue substitutes: effect on the morphology, thermomechanical behaviour and biological development of aliphatic polyesters and polymethacrylates.

Doctoral Candidate: Elena Torres Roca - PhD in Industrial Engineering and Production (June 2019)

4) Thesis: Use of cottonseed oil as renewable base material for the optimization of high environmentally friendly polymer formulations.

Doctoral Candidate: Alfredo Carbonell Verdú - PhD in Industrial Engineering and Production (September 2018)

PUBLISHED PAPERS ON PEER REVIEWED JOURNALS

- [1] Dominici, F., Gigli, M., Armentano, I., Genovese, L., Luzi, F., Torre, L., Munari, A., Lotti, N.
Improving the flexibility and compostability of starch/poly(butylene cyclohexanedicarboxylate)-based blends
(2020) Carbohydrate Polymers, 246, art. no. 116631.
DOI: 10.1016/j.carbpol.2020.116631
- [2] Soccio, M., Dominici, F., Quattrosoldi, S., Luzi, F., Munari, A., Torre, L., Lotti, N., Puglia, D.
PBS-Based Green Copolymer as an Efficient Compatibilizer in Thermoplastic Inedible Wheat Flour/Poly(butylene succinate) Blends
(2020) Biomacromolecules, 21 (8), pp. 3254-3269.
DOI: 10.1021/acs.biomac.0c00701
- [3] Carbonell-Verdu, A., Boronat, T., Quiles-Carrillo, L., Fenollar, O., Dominici, F., Torre, L.
Valorization of Cotton Industry Byproducts in Green Composites with Polylactide
(2020) Journal of Polymers and the Environment, 28 (7), pp. 2039-2053.
DOI: 10.1007/s10924-020-01751-6
- [4] Micó-Vicent, B., Viqueira, V., Ramos, M., Luzi, F., Dominici, F., Torre, L., Jiménez, A., Puglia, D., Garrigós, M.C.
Effect of lemon waste natural dye and essential oil loaded into laminar nanoclays on thermomechanical and color properties of polyester based bionanocomposites
(2020) Polymers, 12 (7), art. no. 1451, pp. 1-22.
DOI: 10.3390/polym12071451
- [5] Quiles-Carrillo, L., Fenollar, O., Balart, R., Torres-Giner, S., Rallini, M., Dominici, F., Torre, L.
A comparative study on the reactive compatibilization of melt-processed polyamide 1010/polylactide blends by multi-functionalized additives derived from linseed oil and petroleum
(2020) Express Polymer Letters, 14 (6), pp. 583-604.

DOI: 10.3144/expresspolymlett.2020.48

- [6] Ramos, M., Dominici, F., Luzi, F., Jiménez, A., Garrigós, M.C., Torre, L., Puglia, D.
Effect of almond shell waste on physicochemical properties of polyester-based biocomposites
(2020) *Polymers*, 12 (4), art. no. 835.
DOI: 10.3390/POLYM12040835
- [7] Dominici, F., Sarasini, F., Luzi, F., Torre, L., Puglia, D.
Thermomechanical and morphological properties of poly(ethylene terephthalate)/anhydrous calcium terephthalate nanocomposites
(2020) *Polymers*, 12 (2), art. no. 276.
DOI: 10.3390/polym12020276
- [8] Dominici, F., Samper, M.D., Carbonell-Verdu, A., Luzi, F., López-Martínez, J., Torre, L., Puglia, D.
Improved toughness in lignin/natural fiber composites plasticized with epoxidized and maleinized linseed oils
(2020) *Materials*, 13 (3), art. no. 600.
DOI: 10.3390/ma13030600
- [9] Bavasso, I., Di Palma, L., Puglia, D., Luzi, F., Dominici, F., Tirillò, J., Sarasini, F., Torre, L.
Effect of Pretreatment of Nanocomposite PES-Fe₃O₄ Separator on Microbial Fuel Cells Performance
(2020) *Polymer Engineering and Science*, 60 (2), pp. 371-379.
DOI: 10.1002/pen.25292
- [10] Dominici, F., Puglia, D., Luzi, F., Sarasini, F., Rallini, M., Torre, L.
A novel class of cost effective and high-performance composites based on terephthalate salts reinforced polyether ether ketone
(2019) *Polymers*, 11 (12), art. no. 2097.
DOI: 10.3390/polym11122097
- [11] Luzi, F., Dominici, F., Armentano, I., Fortunati, E., Burgos, N., Fiori, S., Jiménez, A., Kenny, J.M., Torre, L.
Combined effect of cellulose nanocrystals, carvacrol and oligomeric lactic acid in PLA-PHB polymeric films
(2019) *Carbohydrate Polymers*, 223, art. no. 115131, .
DOI: 10.1016/j.carbpol.2019.115131
- [12] Dominici, F., García, D.G., Fombuena, V., Luzi, F., Puglia, D., Torre, L., Balart, R.
Bio-polyethylene-based composites reinforced with alkali and palmitoyl chloride-treated coffee silverskin
(2019) *Molecules*, 24 (17), art. no. 3113.
DOI: 10.3390/molecules24173113
- [13] Fombuena, V., Petrucci, R., Dominici, F., Jordá-Vilaplana, A., Montanes, N., Torre, L.

Maleinized linseed oil as epoxy resin hardener for composites with high bio content obtained from linen byproducts
(2019) *Polymers*, 11 (2), art. no. 301, .
DOI: 10.3390/polym11020301

- [14] Iglesias Montes, M.L., Luzi, F., Dominici, F., Torre, L., Cyras, V.P., Manfredi, L.B., Puglia, D.
Design and characterization of PLA bilayer films containing lignin and cellulose nanostructures in combination with umbelliferone as active ingredient
(2019) *Frontiers in Chemistry*, 7 (MAR), art. no. 157, .
DOI: 10.3389/fchem.2019.00157
- [15] Sarasini, F., Luzi, F., Dominici, F., Maffei, G., Iannone, A., Zuorro, A., Lavecchia, R., Torre, L., Carbonell-Verdu, A., Balart, R., Puglia, D.
Effect of different compatibilizers on sustainable composites based on a PHBV/PBAT matrix filled with coffee silverskin
(2018) *Polymers*, 10 (11), art. no. 1256, .
DOI: 10.3390/polym10111256
- [16] Genovese, L., Dominici, F., Gigli, M., Armentano, I., Lotti, N., Fortunati, E., Siracusa, V., Torre, L., Munari, A.
Processing, thermo-mechanical characterization and gas permeability of thermoplastic starch/poly(butylene trans-1,4-cyclohexanedicarboxylate) blends
(2018) *Polymer Degradation and Stability*, 157, pp. 100-107.
DOI: 10.1016/j.polymdegradstab.2018.10.004
- [17] Carbonell-Verdu, A., Ferri, J.M., Dominici, F., Boronat, T., Sanchez-Nacher, L., Balart, R., Torre, L.
Manufacturing and compatibilization of PLA/PBAT binary blends by cottonseed oil-based derivatives
(2018) *Express Polymer Letters*, 12 (9), pp. 808-823.
DOI: 10.3144/expresspolymlett.2018.69
- [18] Sarasini, F., Tirillò, J., Zuorro, A., Maffei, G., Lavecchia, R., Puglia, D., Dominici, F., Luzi, F., Valente, T., Torre, L.
Recycling coffee silverskin in sustainable composites based on a poly(butylene adipate-co-terephthalate)/poly(3-hydroxybutyrate-co-3-hydroxyvalerate) matrix
(2018) *Industrial Crops and Products*, 118, pp. 311-320.
DOI: 10.1016/j.indcrop.2018.03.070
- [19] Luzi, F., Puglia, D., Dominici, F., Fortunati, E., Giovanale, G., Balestra, G.M., Torre, L.
Effect of gallic acid and umbelliferone on thermal, mechanical, antioxidant and antimicrobial properties of poly (vinyl alcohol-co-ethylene) films
(2018) *Polymer Degradation and Stability*, 152, pp. 162-176.
DOI: 10.1016/j.polymdegradstab.2018.04.015

- [20] Sessini, V., Navarro-Baena, I., Arrieta, M.P., Dominici, F., López, D., Torre, L., Kenny, J.M., Dubois, P., Raquez, J.-M., Peponi, L.
Effect of the addition of polyester-grafted-cellulose nanocrystals on the shape memory properties of biodegradable PLA/PCL nanocomposites
(2018) *Polymer Degradation and Stability*, 152, pp. 126-138.
DOI: 10.1016/j.polymdegradstab.2018.04.012
- [21] Peponi, L., Sessini, V., Arrieta, M.P., Navarro-Baena, I., Sonseca, A., Dominici, F., Gimenez, E., Torre, L., Tercjak, A., López, D., Kenny, J.M.
Thermally-activated shape memory effect on biodegradable nanocomposites based on PLA/PCL blend reinforced with hydroxyapatite
(2018) *Polymer Degradation and Stability*, 151, pp. 36-51.
DOI: 10.1016/j.polymdegradstab.2018.02.019
- [22] Yang, W., Rallini, M., Wang, D.-Y., Gao, D., Dominici, F., Torre, L., Kenny, J.M., Puglia, D.
Role of lignin nanoparticles in UV resistance, thermal and mechanical performance of PMMA nanocomposites prepared by a combined free-radical graft polymerization/masterbatch procedure
(2018) *Composites Part A: Applied Science and Manufacturing*, 107, pp. 61-69.
DOI: 10.1016/j.compositesa.2017.12.030
- [23] Di Palma, L., Bavasso, I., Sarasini, F., Tirillò, J., Puglia, D., Dominici, F., Torre, L.
Synthesis, characterization and performance evaluation of Fe₃O₄/PES nano composite membranes for microbial fuel cell
(2018) *European Polymer Journal*, 99, pp. 222-229.
DOI: 10.1016/j.eurpolymj.2017.12.037
- [24] Di Palma, L., Bavasso, I., Sarasini, F., Tirillò, J., Puglia, D., Dominici, F., Torre, L., Galluzzi, A., Polichetti, M., Ramazanov, M.A., Hajiyeva, F.V., Shirinova, H.A.
Effect of nano-magnetite particle content on mechanical, thermal and magnetic properties of polypropylene composites
(2018) *Polymer Composites*. Article in Press.
DOI: 10.1002/pc.24727
- [25] Benincasa, P., Puglia, D., Dominici F.
Refining and bran grinding levels of wheat flours, besides baking properties, affect tensile characteristics of derived bioplastics.
(2017). *JOURNAL OF FOOD PROCESSING & TECHNOLOGY*, vol. 8, p. 45,
DOI: 10.4172/2157-7110.C1.059
- [26] Rinaldi, M., Puglia, D., Dominici, F., Cherubini, V., Torre, L., Nanni, F.
Melt processing and mechanical property characterization of high-performance poly(ether ether ketone)-carbon nanotube composite
(2017) *Polymer International*, 66 (12), pp. 1731-1736.
DOI: 10.1002/pi.5451

- [27] Yang, W., Zhao, X., Fortunati, E., Dominici, F., Kenny, J.M., Puglia, D., Wang, D.-Y. Effect of cellulose nanocrystals on fire, thermal and mechanical behavior of N,N'-diallyl-phenylphosphoricdiamide modified poly(lactic acid) (2017) *Journal of Renewable Materials*, 5 (5), pp. 423-434. DOI: 10.7569/JRM.2017.634146
- [28] Carbonell-Verdu, A., Garcia-Garcia, D., Dominici, F., Torre, L., Sanchez-Nacher, L., Balart, R. PLA films with improved flexibility properties by using maleinized cottonseed oil (2017) *European Polymer Journal*, 91, pp. 248-259. DOI: 10.1016/j.eurpolymj.2017.04.013
- [29] Benincasa, P., Dominici, F., Bocci, L., Governatori, C., Panfili, I., Tosti, G., Torre, L., Puglia, D. Relationships between wheat flour baking properties and tensile characteristics of derived thermoplastic films (2017) *Industrial Crops and Products*, 100, pp. 138-145. DOI: 10.1016/j.indcrop.2017.02.021
- [30] Fortunati, E., Gigli, M., Luzi, F., Dominici, F., Lotti, N., Gazzano, M., Cano, A., Chiralt, A., Munari, A., Kenny, J.M., Armentano, I., Torre, L. Processing and characterization of nanocomposite based on poly(butylene/triethylene succinate) copolymers and cellulose nanocrystals (2017) *Carbohydrate Polymers*, 165, pp. 51-60. DOI: 10.1016/j.carbpol.2017.02.024
- [31] Sarasini, F., Tirillò, J., Puglia, D., Dominici, F., Santulli, C., Boimau, K., Valente, T., Torre, L. Biodegradable polycaprolactone-based composites reinforced with ramie and borassus fibres (2017) *Composite Structures*, 167, pp. 20-29. DOI: 10.1016/j.compstruct.2017.01.071
- [32] Burgos, N., Armentano, I., Fortunati, E., Dominici, F., Luzi, F., Fiori, S., Cristofaro, F., Visai, L., Jiménez, A., Kenny, J.M. Functional Properties of Plasticized Bio-Based Poly(Lactic Acid)_Poly(Hydroxybutyrate) (PLA_PHB) Films for Active Food Packaging (2017) *Food and Bioprocess Technology*, 10 (4), pp. 770-780. DOI: 10.1007/s11947-016-1846-3
- [33] Pisello, A.L., Fortunati, E., Fabiani, C., Mattioli, S., Dominici, F., Torre, L., Cabeza, L.F., Cotana, F. PCM for improving polyurethane-based cool roof membranes durability (2017) *Solar Energy Materials and Solar Cells*, 160, pp. 34-42. DOI: 10.1016/j.solmat.2016.09.036

- [34] Navarro-Baena, I., Sessini, V., Dominici, F., Torre, L., Kenny, J.M., Peponi, L.
Design of biodegradable blends based on PLA and PCL: From morphological, thermal and mechanical studies to shape memory behavior
(2016) *Polymer Degradation and Stability*, 132, pp. 97-108.
DOI: 10.1016/j.polymdegradstab.2016.03.037
- [35] Yang, W., Fortunati, E., Dominici, F., Giovanale, G., Mazzaglia, A., Balestra, G.M., Kenny, J.M., Puglia, D.
Effect of cellulose and lignin on disintegration, antimicrobial and antioxidant properties of PLA active films
(2016) *International Journal of Biological Macromolecules*, 89, pp. 360-368.
DOI: 10.1016/j.ijbiomac.2016.04.068
- [36] Puglia, D., Dominici, F., Badalotti, M., Santulli, C., Kenny, J.M.
Tensile, thermal and morphological characterization of cocoa bean shells (CBS)/polycaprolactone-based composites
(2016) *Journal of Renewable Materials*, 4 (3), pp. 199-205.
DOI: 10.7569/JRM.2016.634102
- [37] Yang, W., Fortunati, E., Dominici, F., Giovanale, G., Mazzaglia, A., Balestra, G.M., Kenny, J.M., Puglia, D.
Synergic effect of cellulose and lignin nanostructures in PLA based systems for food antibacterial packaging
(2016) *European Polymer Journal*, 79, pp. 1-12.
DOI: 10.1016/j.eurpolymj.2016.04.003
- [38] Lizundia, E., Fortunati, E., Dominici, F., Vilas, J.L., León, L.M., Armentano, I., Torre, L., Kenny, J.M.
PLLA-grafted cellulose nanocrystals: Role of the CNC content and grafting on the PLA bionanocomposite film properties
(2016) *Carbohydrate Polymers*, 142, pp. 105-113.
DOI: 10.1016/j.carbpol.2016.01.041
- [39] Puglia, D., Dominici, F., Kenny, J.M., Santulli, C., Governatori, C., Tosti, G., Benincasa, P.
Tensile Behavior of Thermoplastic Films from Wheat Flours as Function of Raw Material Baking Properties
(2016) *Journal of Polymers and the Environment*, 24 (1), pp. 37-47.
DOI: 10.1007/s10924-015-0745-4
- [40] Yang, W., Dominici, F., Fortunati, E., Kenny, J.M., Puglia, D.
Effect of lignin nanoparticles and masterbatch procedures on the final properties of glycidyl methacrylate-g-poly (lactic acid) films before and after accelerated UV weathering
(2015) *Industrial Crops and Products*, 77, pp. 833-844.
DOI: 10.1016/j.indcrop.2015.09.057

- [41] Yang, W., Fortunati, E., Dominici, F., Kenny, J.M., Puglia, D.
Effect of processing conditions and lignin content on thermal, mechanical and degradative behavior of lignin nanoparticles/poly(lactic acid) bionanocomposites prepared by melt extrusion and solvent casting
(2015) *European Polymer Journal*, 71, art. no. 7017, pp. 126-139.
DOI: 10.1016/j.eurpolymj.2015.07.051
- [42] Arrieta, M.P., Fortunati, E., Dominici, F., López, J., Kenny, J.M.
Bionanocomposite films based on plasticized PLA-PHB/cellulose nanocrystal blends
(2015) *Carbohydrate Polymers*, 121, pp. 265-275.
DOI: 10.1016/j.carbpol.2014.12.056
- [43] Yang, W., Dominici, F., Fortunati, E., Kenny, J.M., Puglia, D.
Melt free radical grafting of glycidyl methacrylate (GMA) onto fully biodegradable poly(lactic acid) films: Effect of cellulose nanocrystals and a masterbatch process
(2015) *RSC Advances*, 5 (41), pp. 32350-32357.
DOI: 10.1039/c5ra00894h
- [44] Sarasini, F., Tirillò, J., Puglia, D., Kenny, J.M., Dominici, F., Santulli, C., Tofani, M., De Santis, R.
Effect of different lignocellulosic fibres on poly(ϵ -caprolactone)-based composites for potential applications in orthotics
(2015) *RSC Advances*, 5 (30), pp. 23798-23809.
DOI: 10.1039/c5ra00832h
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Terni lì 22/10/2020

Franco Dominici


