

# Gaia Urciuoli

## EDUCATION AND TRAINING

From 2022 to present

### Post Doc

Exploring a class of molecular activators mimicking the reactivity and function of methylaluminoxane (MAO) and acting as “complete” cocatalysts for molecular olefin polymerization catalysts.

Università di Perugia and Università degli Studi di Napoli “Federico II”

From 2018 to 2022

### PhD in Chemical Sciences

Structural Characterization of Olefin-based Multiblock Copolymers by Chain Shuttling Technology

Università degli Studi di Napoli “Federico II”

From 2016 to 2018

### Master's Degree in Sciences and Technology of Industrial Chemistry

Thesis Title: Structure and Mechanical Properties of Isotactic Propylene-Ethylene Copolymers Prepared by Metallocene Catalysts

Università degli Studi di Napoli “Federico II”

From 2012 to 2015

### Bachelor's Degree in Industrial Chemistry

Thesis Title: Study of the Structure and Mechanical Properties of Heterophasic Ethylene-Propylene Copolymers Prepared by Catalloy Technology

Università degli Studi di Napoli “Federico II”

## PUBLICATIONS AND AWARDS

Publications	<ul style="list-style-type: none"><li>• F. Auriemma, R. Di Girolamo, G. Urciuoli, M.R. Caputo, C. De Rosa, M. Scoti, A. Malafronte, R. Cipullo, V. Busico, N. Grizzuti, V. Vanzanella, S. Costanzo, Transmission electron microscopy analysis of multiblock ethylene-1-octene copolymers. <i>Polymer</i>, 2020, 193. <a href="https://doi.org/10.1016/J.POLYMER.2020.122347">https://doi.org/10.1016/J.POLYMER.2020.122347</a></li><li>• G. Urciuoli, A. Vittoria, G. Talarico, D. Luise, C. De Rosa, V. Busico, R. Cipullo, O. Ruiz de Ballesteros, F. Auriemma, In-depth analysis of the non-uniform chain microstructure of multi-block copolymers from chain shuttling polymerization. <i>Macromolecules</i>, 2021. <a href="https://doi.org/10.1021/acs.macromol.1c01824">https://doi.org/10.1021/acs.macromol.1c01824</a></li><li>• A. Vittoria, G.P. Goryunov, V.V. Izmer, D.S. Kononovich, O.V. Samsonov, F. Zaccaria, G. Urciuoli, P.H.M. Budzelaar, V. Busico, A.Z. Voskoboinikov, D.V. Uborsky, C. Ehm, R. Cipullo, Hafnium vs. Zirconium, the Perpetual Battle for Supremacy in Catalytic Olefin Polymerization: A Simple Matter of Electrophilicity? <i>Polymers</i>, 2021, 13 (16), 2621. <a href="https://doi.org/10.3390/polym13162621">https://doi.org/10.3390/polym13162621</a></li><li>• A. Vittoria, G. Urciuoli, S. Costanzo, D. Tammaro, F.D. Cannavacciulo, R. Pasquino, R. Cipullo, F. Auriemma, N. Grizzuti, P.L. Maffettone, V. Busico, Extending the High-Throughput Experimentation (HTE) Approach to Catalytic Olefin Polymerizations: From Catalysts to Materials. <i>Macromolecules</i>, 2022, 55 (12), 5017-5026. <a href="https://doi.org/10.1021/acs.macromol.2c00813">https://doi.org/10.1021/acs.macromol.2c00813</a></li><li>• G. Urciuoli, O. Ruiz de Ballesteros, R. Cipullo, M. Trifoggi, A. Giarra, F. Auriemma, Thermal Fractionation of Ethylene/1-Octene Multiblock Copolymers from Chain Shutting Polymerization. <i>Macromolecules</i>, 2022, 55 (13), 5656-5668. <a href="https://doi.org/10.1021/acs.macromol.2c00773">https://doi.org/10.1021/acs.macromol.2c00773</a></li><li>• G. Urciuoli, O. Ruiz de Ballesteros, G. Femina, F. Auriemma, Isothermal Crystallization Kinetics in Bulk of Olefin-based Multiblock Copolymers. <i>Front. Soft. Matter</i>, 2022, 2. <a href="https://doi.org/10.3389/fsm.2022.1021006">https://doi.org/10.3389/fsm.2022.1021006</a></li><li>• G. Femina, O. Ruiz de Ballesteros, G. Urciuoli, M. van Duin, C. Gögelein, D. Tammaro, P. Sotta, F. Auriemma, X-ray diffraction study of strain-induced crystallization of hydrogenated nitrile-butadiene rubbers: Effect of crosslink density. <i>Polymer</i>, 2023, 271, 125782. <a href="https://doi.org/10.1016/j.polymer.2023.125782">https://doi.org/10.1016/j.polymer.2023.125782</a></li><li>• G. Urciuoli, F. Zaccaria, C. Zuccaccia, R. Cipullo, P.H.M. Budzelaar, A. Vittoria, C. Ehm, A. Macchioni, V. Busico, A Hydrocarbon Soluble, Molecular and “Complete” Al-Cocatalyst for High Temperature Olefin Polymerization. <i>Polymers</i>, 2023, 15 (6), 1378. <a href="https://doi.org/10.3390/polym15061378">https://doi.org/10.3390/polym15061378</a></li><li>• G. Antinucci, A. Pucciarelli, A. Vittoria, F. Zaccaria, G. Urciuoli, C. Ehm, F.D. Cannavacciulo, R. Cipullo, V. Busico, Fast Analytics of High-Impact Polypropylene (HIPP). <i>ACS Appl. Polym. Mater.</i>, 2023, 5 (6), 3894. <a href="https://doi.org/10.1021/acsapm.3c00810">https://doi.org/10.1021/acsapm.3c00810</a></li><li>• G. Urciuoli, O. Ruiz de Ballesteros, F. Auriemma, Molecular Architecture of Multiblock Copolymers Synthesized by the Chain Shuttling Technology. <i>Macromol. Chem. Phys.</i>, 2023, 2300113. <a href="https://doi.org/10.1002/macp.202300113">https://doi.org/10.1002/macp.202300113</a></li></ul>
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Contributions in Conferences	<ul style="list-style-type: none"> <li>• G. Urciuoli, R. Di Girolamo, A. Vittoria, S. Costanzo, V. Vanzanella, C. De Rosa, V. Busico, N. Grizzuti, F. Auriemma, R. Cipullo, R. Pasquino. An Inter-disciplinary High-throughput Approach to Unveil the Molecular Structure, Morphology, and Rheology of Multiblock Copolymers from Chain Shuttling Technology (poster). 5th Blue Sky Conference, 24-28 June 2019, Napoli and Sorrento.</li> <li>• F. Auriemma, C. De Rosa, R. Di Girolamo, G. Urciuoli, M.R. Caputo. Structural Characterization of Olefin-based Multiblock Copolymers Obtained through Chain Shuttling Technology (poster). 5th Blue Sky Conference, 24-28 June 2019, Napoli and Sorrento.</li> <li>• G. Urciuoli, F. Auriemma, C. De Rosa, R. Di Girolamo, M.R. Caputo. Structural Characterization of Olefin-based Multiblock Copolymers Obtained through Chain Shuttling Technology (oral contribution). Macrogiovani 2019, AIM, 1-2 July 2019, Napoli.</li> <li>• G. Urciuoli, R. Di Girolamo, F. Auriemma, C. De Rosa, Melt- and Solid-state Behavior of Ethylene-based Multiblock Copolymers (oral contribution). Macrogiovani 2020 – Digital edition, AIM, 26 June 2020.</li> <li>• G. Urciuoli, A. Vittoria, S. Costanzo, C. De Rosa, R. Cipullo, N. Grizzuti, V. Busico, and F. Auriemma, The complex molecular architecture of olefin-based multiblock copolymers by chain shuttling technology (oral contribution). Merck Young Chemists' Symposium 2021, 22-24 November 2021, Rimini (Italy).</li> <li>• G. Urciuoli, A. Vittoria, O. Ruiz de Ballesteros, R. Cipullo, V. Busico, F. Auriemma. Tailoring the Segregation Strength and the Mechanical Properties in Statistical Ethylene/1-Octene Multiblock Copolymers by Chain Shuttling Polymerization (poster), Milan Polymer Days, MIPOL-2022, 19-21 June 2022, Milan.</li> <li>• G. Urciuoli, F. Zaccaria, C. Zuccaccia, R. Cipullo, P.H.M. Budzelaar, A. Vittoria, C. Ehm, A. Macchioni, V. Busico. Well-defined and “complete” Al-cocatalysts for Olefin Polymerization, 2: HTE screening in Olefin polymerization (poster). 1st Blue Sky-INCOREP Conference, 12-16 June 2023, Sorrento.</li> <li>• G. Urciuoli, A. Vittoria, R. Cipullo, V. Busico, F. Auriemma. Tailoring the Segregation Strength and the Mechanical Properties in Olefin-based Multiblock Copolymers by Chain Shuttling Polymerization (contributed lecture). 1st Blue Sky-INCOREP Conference, 12-16 June 2023, Sorrento.</li> <li>• G. Urciuoli, F. Zaccaria, C. Zuccaccia, R. Cipullo, P.H.M. Budzelaar, A. Vittoria, C. Ehm, A. Macchioni, V. Busico. Well-defined and “complete” Al-cocatalysts for Olefin Polymerization: Synthesis and Reactivity Studies (oral contribution). Convegno SCI Sezione Campania, II Contributo dei Giovani Chimici in Campania, 20 June 2023, Napoli.</li> </ul>
Awards	<ul style="list-style-type: none"> <li>• G. Urciuoli, F. Auriemma, C. De Rosa, R. Di Girolamo, M.R. Caputo, Structural Characterization of Olefin-based Multiblock Copolymers Obtained through Chain Shuttling Technology (Best Oral Presentation Award). Macrogiovani 2019, AIM, 1-2 July 2019, Napoli.</li> <li>• G. Urciuoli and A. Vittoria, Investigating Microstructural and Structural Reproducibility of HTE Synthesized Olefin Block Copolymer - An inter-disciplinary high-throughput approach to olefin block copolymers (Poster Award, second prize). DPI Annual Meeting 2019, 12-13 November 2019, Eindhoven.</li> <li>• G. Urciuoli, R. Di Girolamo, F. Auriemma, C. De Rosa, Melt- and Solid-state Behavior of Ethylene-based Multiblock Copolymers (Best Oral Presentation Award). Macrogiovani 2020 – Digital edition, AIM, 26 June 2020.</li> <li>• DPI Golden Thesis Award 2022 – Best PhD Thesis “Structural Characterization of Olefin-based Multiblock Copolymers by Chain Shuttling Technology”</li> </ul>