

CURRICULUM VITAE di ALESSANDRO PIOVANO

TITOLI DI STUDIO

08/07/2009, Diploma Scientifico, scuola superiore "G. Vasco" di Mondovì (CN)
100/100 e lode

08/10/2012, Laurea Triennale in Chimica, Università degli Studi di Torino
110/110 e lode

13/10/2014, Laurea Magistrale in Metodologie Chimiche Avanzate (LM-54), Università degli Studi di Torino
110/110 e lode e menzione

26/06/2015, Alta Qualifica della Scuola di Studi Superiori di Torino, Università degli Studi di Torino
70/70 e lode

04/12/2017, Dottorato di Ricerca in Scienze Chimiche e dei Materiali, Università degli Studi di Torino

ABILITAZIONE SCIENTIFICA NAZIONALE

- 03/A2 "modelli e metodologie per le scienze chimiche" (Chimica Fisica), 2^a fascia
01/02/2023-01/02/2034
 - 03/B1 "fondamenti delle scienze chimiche e sistemi inorganici" (Chimica Inorganica), 2^a fascia
06/02/2023-06/02/2034
 - 03/B2 "fondamenti chimici delle tecnologie" (Chimica per l'Ingegneria), 2^a fascia
31/01/2022-31/01/2033
 - 03/C2 "chimica industriale" (Chimica Industriale), 2^a fascia
23/01/2023-23/01/2034
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ESPERIENZE LAVORATIVE

Ricercatore RTD-A, 01/02/2022 – in corso
Dipartimento di Scienza Applicata e Tecnologia, Politecnico di Torino
Supervisore: Prof. C. Gerbaldi

Post-Doc, 01/12/2021 – 31/01/2022
Dipartimento di Chimica, Università di Torino
Supervisore: Prof. F. Bonino

Post-Doc, 01/11/2017 – 30/11/2021
Dipartimento di Chimica, Università di Torino
Supervisore: Prof. E. Groppo

Post-Doc, 01/11/2017 – 31/10/2020
Dutch Polymer Institute (DPI) a Eindhoven (NL)
Supervisore: Prof. E. Groppo

PhD Student, 01/11/2014 – 31/10/2017
Dipartimento di Chimica, Università di Torino
Supervisore: Prof. E. Groppo

Visiting PhD student, 01/09/2016-22/12/2016
Utrecht University (NL), Dipartimento di Chimica
Supervisore: Prof. B. Weckhuysen

PREMI e RICONOSCIMENTI

ELECTROCHIMICA ACTA AND ISE TRAVEL AWARDS FOR YOUNG ELECTROCHEMISTS 2023
Motivazione: una delle 10 borse di studio per sostenere la partecipazione al 74° Congresso annuale ISE a Lione (FR)
Ente: International Society of Electrochemistry

“ROBERT KARL GRASSELLI” NATIONAL AWARD (2022)
Motivazione: miglior ricercatore under 37 nel campo della catalisi eterogenea in fase gassosa
Ente: Gruppo Interdivisionale di Catalisi, Società Chimica Italiana

NATIONAL AWARD FOR THE BEST DOCTORAL THESIS IN THE INDUSTRIAL CHEMISTRY FIELD (2018)
Motivazione: miglior tesi di dottorato nel campo della chimica industriale
Ente: Divisione di Chimica Industriale, Società Chimica Italiana

NATIONAL AWARD "FERRONI INTERFASI" (2016)
Motivazione: miglior tesi di laurea magistrale nella Chimica Fisica dei Sistemi Dispersi e delle Interfacce
Ente: Fondazione Onlus “Prof. Enzo Ferroni” (Firenze, IT)

FINALIST OF 8TH, 10TH, 13TH NATIONAL COMPETITION OF SCIENCE DISSEMINATION (2019, 2021, 2024)
Motivazione: riconoscimento per ricercatori under 35 che abbiano ottenuto rilevanti risultati scientifici-tecnologici in enti di ricerca italiani e che parallelamente abbiano dimostrato competenza nella diffusione di questi risultati presso il grande pubblico
Ente: Associazione Onlus CentroScienza (Torino, IT)

PRODUZIONE SCIENTIFICA

45 articoli pubblicati su riviste internazionali (ISI)

(* corresponding author)

1. Alessandro Piovano, K. S. Thushara, Elena Morra, Mario Chiesa, Elena Groppo,* "Unraveling the Catalytic Synergy between Ti^{3+} and Al^{3+} Sites on a Chlorinated Al_2O_3 : A Tandem Approach to Branched Polyethylene", *Angew. Chem. Int. Ed.* **2016**, 55, 37, 11203-11206
2. Maddalena D'Amore, K.S. Thushara, Alessandro Piovano, Mauro Causà, Silvia Bordiga, Elena Groppo,* "Surface Investigation And Morphological Analysis Of Structurally Disordered $MgCl_2$ And $MgCl_2/TiCl_4$ Ziegler-Natta Catalysts", *ACS Catal.* **2016**, 6, 9, 5786-5796
3. Amy L. Miller, Michael Bowker, Andrés García-Trenco, Joseph Socci, Nia Richards, Graham Hutchings, Nicola Collis, James Earley, Simon Freakley, Robbie Burch, Mark Howard, Elad Gross, Andrzej Kotarba, Miron V. Landau, James Anderson, Bert Weckhuysen, Simon Kondrat, Evgeny Naranov, John Mark Douthwaite, Ram Tiruvalam, Sarwat Iqbal, Luke Parker, Parag Shah, Ewa Nowicka, Wataru Ueda, Alessandro Piovano, Philip Landon, Nico Fischer, Christian Reece, Bruce Gates, Michael Lamb, Eoin Jackman, Tomasz Jakubek, Avelino Corma, Michael Claeys, Henrik Svengren, Cynthia Friend, David Lennon, Joshua Makepeace, Hazel Hunter, Haresh Manyar, "Application of novel catalysts: general discussion", *Faraday Discuss.* **2016**, 188, 399-426
4. Alessandro Piovano,* Giorgia A. Martino, Caterina Barzan, "A Spectroscopic Investigation of Silica-Supported $TiCl_x$ Species: a Case Study towards Ziegler-Natta Catalysis", *Rend. Fis. Acc. Lincei* **2017**, 28, Suppl. 1, 43-49
5. K. S. Thushara, Maddalena D'Amore,* Alessandro Piovano, Silvia Bordiga, Elena Groppo,* "The Influence of Alcohols in Driving the Morphology of $MgCl_2$ Nanocrystals", *ChemCatChem* **2017**, 9, 10, 1782-1787
6. Maria Botavina, Caterina Barzan, Alessandro Piovano, Luca Braglia, Giovanni Agostini, Gianmario Martra, Elena Groppo,* "Insights into Cr/SiO_2 catalysts during dehydrogenation of propane: an operando XAS investigation", *Catal. Sci. Tech.* **2017**, 7, 8, 1690-1700
7. Alessandro Piovano, Elena Morra, Mario Chiesa,* Elena Groppo,* "Tuning the Ti^{3+} and Al^{3+} synergy in a $Al_2O_3/TiCl_x$ catalyst to modulate the grade of the produced polyethylene", *ACS Catal.* **2017**, 7, 8, 4915-4921
8. Caterina Barzan,* Alessandro Piovano, Luca Braglia, Giorgia A. Martino, Carlo Lamberti, Silvia Bordiga, Elena Groppo,* "Ligands make the difference! Molecular insights into Cr^{VI}/SiO_2 Phillips catalyst during ethylene polymerization", *J. Am. Chem. Soc.* **2017**, 139, 47, 17064-17073
9. Giorgia A. Martino, Caterina Barzan, Alessandro Piovano, Andriy Budnyk, Elena Groppo,* "Tracking the reasons for the peculiarity of Cr/Al_2O_3 catalyst in ethylene polymerization", *J. Catal.* **2018**, 357, 206-212
10. Alessandro Piovano, Maddalena D'Amore,* K. S. Thushara, Elena Groppo,* "Spectroscopic Evidences for $TiCl_4$ -Donor Complexes at the Surface of $MgCl_2$ -Supported Ziegler-Natta Catalysts", *J. Phys. Chem. C* **2018**, 122, 10, 5615-5626
11. Giorgia A. Martino, Alessandro Piovano, Caterina Barzan, Silvia Bordiga, Elena Groppo,* "The effect of Al-alkyls on the Phillips catalyst for ethylene polymerization: the case of diethylaluminum ethoxide (DEALE)", *Top. Catal.* **2018**, 61, 14, 1465-1473
12. Alessandro Piovano, Paul Pletcher, Marjolein E. Z. Velthoen, Silvia Zanoni, Sang-Ho Chung, Koen Bossers, Maarten K. Jongkind, Gianluca Fiore, Elena Groppo,* Bert M. Weckhuysen,* "Genesis of $MgCl_2$ -based Ziegler-Natta Catalysts as Probed with Operando Spectroscopy", *ChemPhysChem* **2018**, 19, 20, 2662-2671
13. Elena Morra, Giorgia A. Martino, Alessandro Piovano, Caterina Barzan, Elena Groppo,* Mario Chiesa,* "In situ X- and Q-band EPR Investigation of Ethylene Polymerization on Cr/SiO_2 Phillips Catalyst", *J. Phys. Chem. C* **2018**, 122, 37, 21531-21536
14. Elena Groppo,* Giorgia A. Martino, Alessandro Piovano, Caterina Barzan, "The active sites in the Phillips catalysts: origins of a lively debate and a vision for the future", *ACS Catal.* **2018**, 8, 11, 10846-10863

15. Giuseppe Leone,* Elena Groppo,* Giorgia Zanchin, Giorgia A. Martino, Alessandro Piovano, Fabio Bertini, Javier Martí-Rujas, Emilio Parisini, Giovanni Ricci, "Concerted Electron Transfer in Iminopyridine Chromium Complexes: Ligand Effects on the Polymerization of Various (Di)olefins", *Organometallics* **2018**, 37, 24, 4827–4840
16. Lorenzo Mino,* Caterina Barzan, Giorgia A. Martino, Alessandro Piovano, Giuseppe Spoto, Adriano Zecchina,* Elena Groppo, "Photoinduced Ethylene Polymerization on the Cr^{VI}/SiO₂ Phillips Catalyst", *J. Phys. Chem. C* **2019**, 123, 13, 8145-8152
17. Alexander A. Guda, Sergey A. Guda, Kirill A. Lomachenko, Mikhail A. Soldatov, Ilia A. Pankin, Alexander V. Soldatov, Luca Braglia, Aram L. Bugaev, Andrea Martini, Matteo Signorile, Elena Groppo, Alessandro Piovano, Elisa Borfecchia, Carlo Lamberti,* "Quantitative structural determination of active sites from in situ and operando XANES spectra: From standard ab initio simulations to chemometric and machine learning approaches", *Catal. Today* **2019**, 336, 3-21
18. Caterina Barzan, Alessandro Piovano,* Maria Botavina, Giorgia A. Martino, Giovanni Agostini, Gianmario Martra, Elena Groppo, "Exploring the benefits beyond the pre-reduction in methane of the Cr/SiO₂ Phillips catalyst: The molecular structure of the Cr sites and their role in the catalytic performance", *J. Catal.* **2019**, 373, 173-179
19. Giorgia A. Martino, Alessandro Piovano, Caterina Barzan, Jabor Rabeah, Giovanni Agostini, Angelika Bruekner, Giuseppe Leone, Giorgia Zanchin, Takashi Monoi, Elena Groppo,* "Rationalizing the Effect of Triethylaluminum on the Cr/SiO₂ Phillips Catalysts", *ACS Catal.* **2020**, 10, 4, 2694-2706
20. Toru Wada, Gentoku Takasao, Alessandro Piovano, Maddalena D'Amore, Ashutosh Thakur, Patchanee Chammingkwan, Paolo Cleto Bruzzese, Minoru Terano, Bartolomeo Civalieri, Silvia Bordiga, Elena Groppo, Toshiaki Taniike,* "Revisiting the identity of δ -MgCl₂: Part I. Structural disorder studied by synchrotron X-ray total scattering", *J. Catal.* **2020**, 385, 76-86
21. Alessandro Piovano,* Maddalena D'Amore,* Toru Wada, Paolo Cleto Bruzzese, Gentoku Takasao, Ashutosh Thakur, Patchanee Chammingkwan, Minoru Terano, Bartolomeo Civalieri, Silvia Bordiga, Toshiaki Taniike, Elena Groppo, "Revisiting the identity of δ -MgCl₂: Part II. Morphology and exposed surfaces studied by vibrational spectroscopies and DFT calculation", *J. Catal.* **2020**, 387, 1-11
22. Alessandro Piovano,* Jelena Zarupski, Elena Groppo, "Disclosing the Interaction between Carbon Monoxide and Alkylated Ti³⁺ Species: a Direct Insight into Ziegler–Natta Catalysis", *J. Phys. Chem. Lett.* **2020**, 11, 14, 5632-5637
23. David Horst Simonne, Andrea Martini,* Matteo Signorile, Alessandro Piovano, Luca Braglia, Piero Torelli, Elisa Borfecchia, Gabriele Ricchiardi, "THORONDOR: a software for quick treatment and analysis for low energy XAS data", *J. Synchrotron Radiat.* **2020**, 27, 1741-1752
24. Toru Wada, Ashutosh Thakur, Patchanee Chammingkwan, Minoru Terano, Toshiaki Taniike,* Alessandro Piovano, Elena Groppo, "Structural Disorder of Mechanically Activated δ -MgCl₂ Studied by Synchrotron X-ray Total Scattering and Vibrational Spectroscopy", *Catalysts* **2020**, 10, 9, 1089
25. Maddalena D'Amore,* Alessandro Piovano, Eleonora Vottero, Andrea Piovano, Svemir Rudić, Alessandro Erba, Elena Groppo, Bartolomeo Civalieri, "Inelastic Neutron Scattering Investigation of MgCl₂ Nanoparticle-Based Ziegler-Natta Catalysts for Olefin Polymerization", *ACS Appl. Nano Mater.* **2020**, 3, 11, 11118–11128
26. Giorgia A. Martino, Alessandro Piovano,* Caterina Barzan, Yu-Kai Liao, Elena Morra, Kousou Hirokane, Mario Chiesa, Takashi Monoi, Elena Groppo, "Cr[CH(SiMe₃)₂]₃/SiO₂ catalysts for ethylene polymerization: the correlation at a molecular level between the chromium loading and the microstructure of the produced polymer", *J. Catal.* **2021**, 394, 131-141
27. Giorgia Zanchin,¹ Alessandro Piovano,¹ Alessia Amodio, Fabio De Stefano, Rocco Di Girolamo,* Elena Groppo,* Giuseppe Leone,* "NEt₃-Triggered Synthesis of UHMWPE Using Chromium Complexes Bearing Non-Innocent Iminopyridine Ligands", *Macromolecules* **2021**, 54, 3, 1243–1253

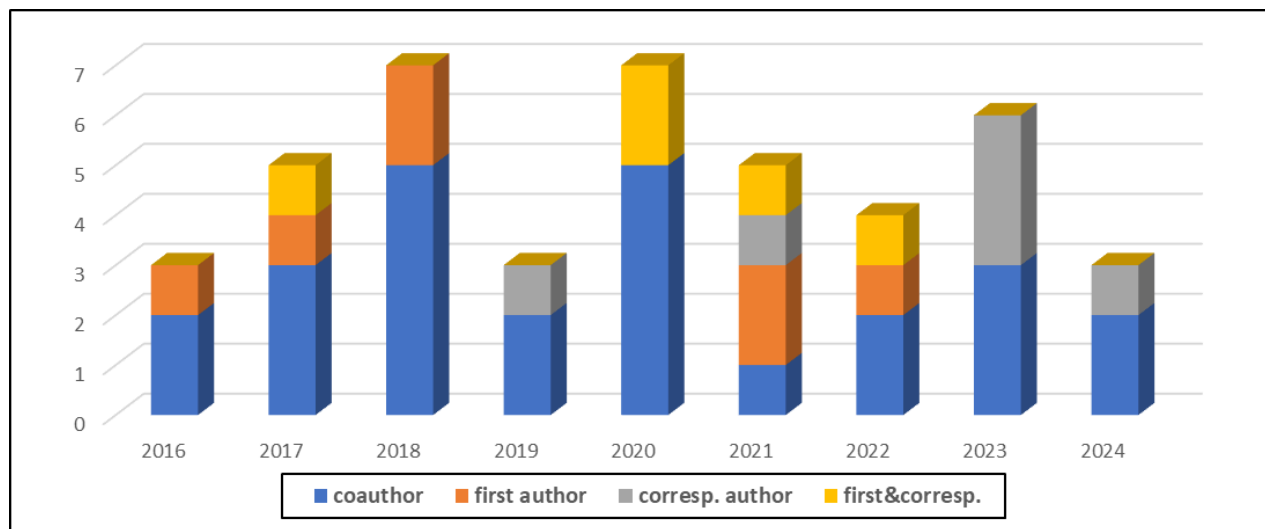
28. Alessandro Piovano, Matteo Signorile, Luca Braglia, Piero Torelli, Andrea Martini, Toru Wada, Gentoku Takasao, Toshiaki Taniike, Elena Groppo,* "Electronic Properties of Ti Sites in Ziegler–Natta Catalysts", *ACS Catal.* **2021**, 11, 15, 9949–9961
29. Maximilian J. Werny,¹ Jelena Zarupski,¹ Iris C. ten Have, Alessandro Piovano, Coen Hendriksen, Nicolaas H. Friederichs, Florian Meirer,* Elena Groppo,* Bert M. Weckhuysen,* "Correlating the Morphological Evolution of Individual Catalyst Particles to the Kinetic Behavior of Metallocene-Based Ethylene Polymerization Catalysts", *JACS Au* **2021**, 1, 11, 1996–2008
30. Alessandro Piovano,* Elena Groppo, "Flexible ligands in heterogeneous catalysts for olefin polymerization: insights from spectroscopy", *Coord. Chem. Rev.* **2022**, 451, 214258
31. Alessandro Piovano,*¹ Toru Wada,¹ Alessia Amodio, Gentoku Takasao, Tomohiro Ikeda, Dongzhi Zhu, Minoru Terano, Patchanee Chammingkwan, Elena Groppo, Toshiaki Taniike,* "Formation of Highly Active Ziegler–Natta Catalysts Clarified by a Multifaceted Characterization Approach", *ACS Catal.* **2021**, 11, 22, 13782–13796
32. Alessia Amodio, Giorgia Zanchin,* Fabio De Stefano, Alessandro Piovano, Benedetta Palucci, Virginia Guiotto, Rocco Di Girolamo, Giuseppe Leone, Elena Groppo, "Cr(III) Complexes Bearing a β -Ketoimine Ligand for Olefin Polymerization: Are There Differences between Coordinative and Covalent Bonding?", *Catalysts* **2022**, 12, 2, 119
33. Alessandro Piovano, Emilia Paone,* "The reductive catalytic upcycling of polyolefin plastic waste", *Current Research in Green and Sustainable Chemistry* **2022**, 5, 100334
34. Elisa Maruccia,* Alessandro Piovano, Mirtha A.O. Lourenço, Tatiana Priamushko, Margherita Cavallo, Sergio Bocchini, Francesca Bonino, Fabrizio C. Pirri, Freddy Kleitz, Claudio Gerbaldi,* "Revealing the competitive effect of N₂ and H₂O towards CO₂ adsorption in N-rich ordered mesoporous carbons", *Materials Today Sustainability* **2023**, 21, 100270
35. Silvia Porporato, Mattia Bartoli, Alessandro Piovano, Nicolò Pianta, Alberto Tagliaferro, Giuseppe A. Elia, Riccardo Ruffo, Claudio Gerbaldi,* "Repurposing Face Masks after Use: From Wastes to Anode Materials for Na-Ion Batteries", *Batteries* **2022**, 8, 10, 183
36. Matteo Milanese, Alessandro Piovano,* Toru Wada, Jelena Zarupski, Patchanee Chammingkwan, Toshiaki Taniike, Elena Groppo,* "Influence of the synthetic procedure on the properties of three Ziegler–Natta catalysts with the same 1,3-diether internal donor", *Catalysis Today* **2023**, 418, 114077
37. Valeria Finelli, Valentina Gentilin, Giulia Mossotti, Gabriele Ricchiardi, Alessandro Piovano,* Valentina Crocellà,* Elena Groppo, "The role of porosity and acidity in the catalytic upcycling of polyethylene", *Catalysis Today* **2023**, 419, 114142
38. Jelena Zarupski, Alessandro Piovano, Matteo Signorile, Alessia Amodio, Luca Olivi, Coen Hendriksen, Nicolaas H. Friederichs, Elena Groppo,* "Silica-magnesium-titanium Ziegler–Natta catalysts. Part I: Structure of the pre-catalyst at a molecular level", *Journal of Catalysis* **2023**, 424, 236–245
39. Jelena Zarupski, Alessandro Piovano, Maximilian J. Werny, Andrea Martini, Luca Braglia, Piero Torelli, Coen Hendriksen, Nicolaas H. Friederichs, Florian Meirer, Bert M. Weckhuysen, Elena Groppo,* "Silica-magnesium-titanium Ziegler–Natta catalysts. Part II. Properties of the active sites and fragmentation behaviour", *Journal of Catalysis* **2023**, 423, 10–18
40. Matteo Bonomo,* Zhuoxin Liu,* Alessandro Piovano,* Zifeng Wang,* *Frontiers in Chemistry* **2023**, 11, 1352000
41. Vasilis Nikitakos, Athanasios D. Porfyrakis,* Konstantinos Beltsios, Constantine Papaspyrides,* Simone Bordinon, Michele Chierotti, Stefano Nejrotti, Matteo Bonomo, Claudia Barolo, Alessandro Piovano, Rudolf Pfaendner, Beatriz Yecora, Angelica Perez, *Polymers* **2024**, 16, 1, 10
42. Mattia Bartoli, Alessandro Piovano,* Giuseppe Antonio Elia, Giuseppina Meligrana, Riccardo Pedraza, Nicolò Pianta, Cristina Tealdi, Gioele Pagot, Enrico Negro, Claudia Triolo, Lourdes Vazquez Gomez, Nicola Comisso, Alberto

Tagliaferro, Saveria Santangelo, Eliana Quartarone, Vito Di Noto, Piercarlo Mustarelli, Riccardo Ruffo, Claudio Gerbaldi,* *Renewable and Sustainable Energy Reviews* **2024**, 194, 114304

43. Elena Groppo,* Alessandro Piovano, *Catalysis Today* **2024**, 429, 114494

44. G. Zanchin, A. Amodio, A. Piovano, V. Guiotto, G. Leone,* L. Falivene,* E. Groppo,* *Organometallics* **2024**, 10.1021/acs.organomet.4c00187

45. A. Massaro, G. Lingua, F. Bozza, A. Piovano, P.P. Prosini, A.B. Muñoz-García, M. Pavone,* C. Gerbaldi,* *Chemistry of Materials* **2024**, 36, 14, 7046-7055



DATI BIBLIOMETRICI al 10/10/2024 - Scopus (e Google Scholar)

N° citazioni: 805 (927)

H-index: 17 (19)

PEER REVIEWS ACCOMPLISHED (24)

ACS Catalysis (2), Batteries (3), Catalysis Science & Technology (2), Catalysts (1), ChemCatChem (1), Energies (2), Energy, Ecology and Environment (1), Industrial & Engineering Chemistry Research (1), International Journal of Polymer Analysis and Characterization (1), Journal of Hazardous Materials (2), Journal of Molecular Liquids (1), Journal of Polymer Research (5), Macromolecular Reaction Engineering (1), Macromolecules (1), Molecules (2), Nanomaterials (6), Physchem (2), Physical Chemistry Chemical Physics (1), Polymers (3), Polyolefins Journal (3), Sustainable Energy & Fuels (4).

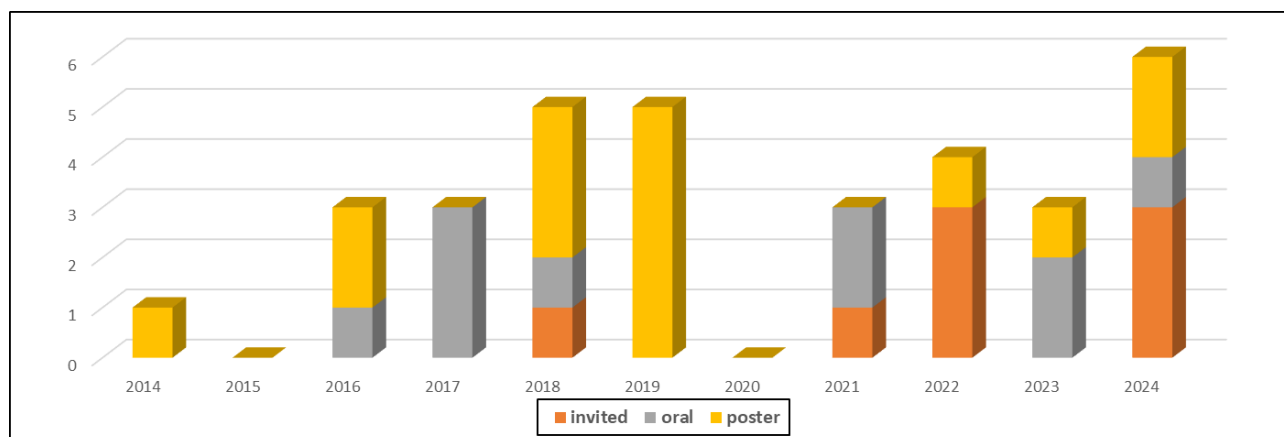
GUEST EDITOR

- Special Issue "New Trends in Phillips and Other Catalysts for Ethylene Polymerization", *Catalysts*
- Research Topic "Polymer Materials for Energy Storage and Harvesting, and Other Sustainable Applications", *Frontiers in Chemistry*
- Topic "Advances in Energy Storage Materials/Devices and Solid-State Batteries", *Batteries/Electrochem/Energies/Materials/Polymers*
- Special Issue "Advanced, solid-state electrochemical energy storage: What is next?", *Next Energy*

CONTRIBUTI A CONGRESSI

33 contributi a congressi internazionali nei campi della chimica fisica, della chimica industriale, della scienza dei materiali, della catalisi, dell'accumulo di energia e dell'elettrochimica.

- 8 contributi su invito:
 - XX National Congress of Catalysis and Industrial Chemistry, Milano (IT), 2018
 - Asian Polyolefin Workshop 2021 (APO2021), online, 2021
 - SYNC2022 1st Symposium for YouNg Chemists: Innovation and Sustainability, Roma (IT), 2022
 - XAS-workshop on Operando Soft X-Ray Absorption Spectroscopy, Trieste (IT), 2022
 - XXII National Congress of Catalysis, Riccione (IT), 2022
 - NIS Colloquium on energy recovery and storage, Torino (IT), 2024
 - International Spring MUSICHEM Conference, Anacapri (IT), 2024
 - Workshop on catalysis at Lincei Academy, Roma (IT), 2024
- 10 contributi orali:
 - 4th Blue Sky Conferences on Catalytic Olefin Polymerization, Sorrento (IT), 2016
 - MIPOL2017 Milan Polymer Days, Milano (IT), 2017
 - 13th European Congress on Catalysis (EUROPACAT2017), Firenze (IT), 2017
 - 13th European Congress on Catalysis (EUROPACAT2017), Firenze (IT), 2017
 - Gordon Research Seminar on Catalysis (GRS), New London (USA), 2018
 - XXVII National Congress of the Italian Society of Chemistry (SCI2021), online, 2021
 - XXVII National Congress of the Italian Society of Chemistry (SCI2021), online, 2021
 - 74th Annual Meeting of the International Society of Electrochemistry (ISE), Lyon (FR), 2023
 - Days of the Italian Electrochemistry (GEI 2023), Cefalù (IT), 2023
 - EnerHarv2024 workshop, Perugia (IT), 2024
- 15 poster:
 - Workshop on Catalytic Olefin Polymerization at CNR-ISMAL, Milano (IT), 2014
 - Faraday Discussion: Designing New Heterogeneous Catalysts, London (UK), 2016
 - 4th Blue Sky Conferences on Catalytic Olefin Polymerization, Sorrento (IT), 2016
 - MIPOL2018 Milan Polymer Days, Milano (IT), 2018
 - Gordon Research Conference on Catalysis (GRC), New London (USA), 2018
 - ILL & ESS European User Meeting, Grenoble (FR), 2018
 - 5th Blue Sky Conferences on Catalytic Olefin Polymerization, Sorrento (IT), 2019
 - 5th Blue Sky Conferences on Catalytic Olefin Polymerization, Sorrento (IT), 2019
 - ExxonMobil R&D Days 2019, Machelen (BE), 2019
 - ExxonMobil R&D Days 2019, Machelen (BE), 2019
 - DPI Annual Meeting 2019, Eindhoven (NL), 2019
 - Italian Days of Electrochemistry, Orvieto (IT), 2022
 - IWES 2023 – 2nd Italian Workshop on Energy Storage, Bressanone (IT), 2023
 - 37th Topical Meeting of the International Society of Electrochemistry", Stresa (IT), June 2024
 - EnerHarv2024 workshop, Perugia (IT), 2024



SESSION CHAIR A CONGRESSI

- 13th European Congress on Catalysis (EUROPACAT2017), Firenze (IT), 2017
- IWES 2023 – 2nd Italian Workshop on Energy Storage, Bressanone (IT), 2023
- 37th Topical Meeting of the International Society of Electrochemistry, Stresa (IT), 2024
- EnerHarv2024, 3rd international workshop, Perugia (IT), 2024

ORGANIZZAZIONE DI EVENTI SCIENTIFICI

- International Winter School on Innovative Catalysis and Sustainability, Bardonecchia (IT), 2019
- Italian Contest “CIG-2020: Catalysis In Game”, Reggio Calabria (IT), 2020
- Congress “IWES 2023 – 2nd Italian Workshop on Energy Storage”, Bressanone (IT), 2023
- International Winter School POLYSTORAGE, Sestriere (IT), 2023
- Congress “37th Topical Meeting of the International Society of Electrochemistry”, Stresa (IT), 2024
- Congress “EnerHarv2024, 3rd international workshop”, Perugia (IT), 2024

PARTECIPAZIONE AD ESPERIMENTI PRESSO *LARGE SCALE FACILITIES*

- ESRF, Grenoble (France): ID24 beamline, Experiment CH-4089 (21–28 aprile 2014).
- ESRF, Grenoble (France): BM23 beamline, Experiment CH-4219 (25 novembre – 3 dicembre 2014).
- ISIS Neutron & Muon Source, Didcot (UK): TOSCA Instrument, Experiment 1810419 (19–25 aprile 2018).
- Elettra, Trieste (Italy): APE-HE beamline, Long Term Experiment 20170124 (28 maggio – 2 giugno 2018; 14-21 dicembre 2018; 3-10 giugno 2019).
- ISIS Neutron & Muon Source, Didcot (UK): TOSCA Instrument, Experiment 1910243 (12–18 luglio 2019).
- Elettra, Trieste (Italy): XAFS beamline, Experiment 20190109 (2–9 dicembre 2019).

ATTIVITÀ DIDATTICA

- 2019-2020 (36 h)
“Spectroscopic Methods and Microscopy with Laboratory”, Bachelor Degree in Materials Science and Technology, Università di Torino.
- 2019-2020 (24 h)
“Catalysis”, Master Degree in Chemistry, Università di Torino.
- 2019-2020 (16 h)
“Catalysis”, International Master Degree in Materials Science, Erasmus Mundus MaMaSELF program, Università di Montpellier.
- 2020-2021 (20 h)
“Catalysis”, International Master Degree in Materials Science, Erasmus Mundus MaMaSELF program, Università di Montpellier.
- 2021-2022 (25 h)
“Organic Chemistry”, Bachelor Degree in Chemical and Food Engineering, Politecnico di Torino.
- 2022-2023 (20 h)
“Catalysis”, International Master Degree in Materials Science, Erasmus Mundus MaMaSELF program, Università di Montpellier.
- 2022-2023 (18 h)
“General Chemistry”, Bachelor Degree in Management Engineering, Politecnico di Torino.
- 2022-2023 (27 h)
“Organic Chemistry”, Bachelor Degree in Chemical and Food Engineering, Politecnico di Torino.
- 2022-2023 (6 h)
“Strategies for Materials Development”, Master Degree in Materials Engineering, Politecnico di Torino.
- 2023-2024 (20 h)
“Catalysis”, International Master Degree in Materials Science, Erasmus Mundus MaMaSELF program, Università di Montpellier.
- 2023-2024 (27 h)
“Organic Chemistry”, Bachelor Degree in Chemical and Food Engineering, Politecnico di Torino.

Correlatore di Tesi

- 1 tesi di dottorato in Sustainable Development and Climate Change, Politecnico di Torino (in corso)
- 1 tesi magistrale in Ingegneria Chimica, Politecnico di Torino
- 1 tesi magistrale in Chimica, Università di Torino
- 6 tesi magistrale in Scienze dei Materiali, Università di Torino
- 5 tesi triennali in Scienza e Tecnologia dei Materiali, Università di Torino

Revisore di Tesi di Dottorato

- Doctoral Course in Nanoscience for Medicine and the Environment (CHIM03), University of Bologna, 2023-24

Aware of the penal sanctions in case of false declarations, the undersigned Piovano Alessandro declares that what is hereinabove described in the CV is true.

