Giulio Malucelli received his Master's degree in Chemical Engineering from the Politecnico di Torino (Polito, Italy) in 1992. In 1996 he obtained his Ph.D. degree in Chemistry. In 1995 he got the position of Assistant Professor at Politecnico di Torino in the Department of Materials Science and Chemical Engineering. In 2003 he was appointed full-time Associate Professor in Chemistry and then, from 2006, in Materials Science and Technology at the Politecnico di Torino - Department of Applied Science and Technology.
Since July 2017 he has been a full-time Professor in Materials Science and Technology at the Politecnico di Torino, heading the "ALL-Polymer" group at the Politecnico di Torino, Alessandria Branch. He has co-authored more than 300 peer-reviewed articles (as of August 24, 2024, according to the Scopus database: 11445 total citations by 6348 documents; h index: 62), 55 book chapters, 1 book and more than 270 communications to national and international congresses.

In 2022 and 2023 Giulio Malucelli was included in Stanford's Top 2% Scientists list (Updated science-wide author databases of standardized citation indicators", Elsevier Data Repository: 10.17632/btchxktzyw.4; 10.17632/btchxktzyw.6)

He has participated in many European projects and completed research projects of the Italian National Research Council and the Italian Ministry of Education and Research, both as a scientific coordinator and team member. He has also received several research grants from "Italian" companies such as Fiat, Solvay Solexis, Pirelli, and Ducati Motor Holding. The funding he has received so far amounts to about 2.5 million euros.
Among the EU projects:

- AI-TRANSPWOOD - AI-driven multiscale methodology to develop transparent wood as a sustainable functional material (2024-2026) UE-funded research - HE - Global Challenges - Digital, Industry and Space - PI of Polito's Research Unit
- DAFIA - Biomacromolecules from municipal solid bio-waste fractions and fish waste for high added value applications (2017-2020) UE-funded research - H2020 - Industrial Leadership - LEIT - NANOTECHNOLOGIES - PI of Polito's Research Unit
- ANASTASIA – Advanced NAno-Structured TApeS for electrotechnical high power Insulating Applications (2010-2012) UE-funded research FP7-NMP – PI of Polito's Research Unit
- HEFEST – Smart fire-retardant coatings based on intumescent nanocomposites (2008-2011), FP7-SME – PI of Polito's Research Unit

Giulio Malucelli has participated as an invited speaker in the following international conferences:

1. Keynote invited lecture: "Bio-sourced and renewable flame retardant treatments for textiles: where we are and where we are going", EMRS 2024 Spring Meeting, Strasbourg, 27-31 May 2024.

2. Keynote invited lecture: "Fire retardant coatings based on biomacromolecules: Towards a sustainable approach", European Coatings Fire Forum, Berlin, 17-18 October 2017.

3. Keynote invited lecture: "Biomacromolecules-based fire retardants for textiles". Fire retardants & textiles: past, present and future, Torino, 15-16 February 2016.

4. Keynote invited lecture: "Recent surface engineering methods for improving the flame retardant features of textiles". COST MP1105 Final Conference, Poznan, 27-28 April 2016.

5. Keynote invited lecture: “Recent advances on fire retardant coatings on textiles: an overview”. In: ECC - European Coatings Conference 2015, Dusserdolf, 19-20 October 2015.

6. Keynote invited lecture: “Fire retardancy of textiles through surface engineering methods: Recent advances” ITTC, 6th International Technical Textiles Congress, Izmir, 14-16 October 2015.

7. Plenary invited lecture: “Sol-gel and layer by layer treatments for enhancing flame retardancy of textiles”. 18th Romanian International Conference on Chemistry and Chemical Engineering, Sinaia, 4-7 September 2013.

8. Keynote invited lecture: “Multi-component flame resistant coating techniques for textiles: an overview”. WORKSHOP on “Multifunctional textiles based on hybrid coatings and nanoparticles” Naples, 17 September 2013.

9. Keynote invited lecture: “Unconventional Surface Treatments for Conferring Flame Retardancy to Cotton, Polyester and Their Blends”. COST MP1105 Scientific workshop on Innovative Flame Retardant Systems (applications and testing), Maribor, 27-28 March 2013.

10. Plenary invited lecture: “Sol-gel treatments for improving thermal stability, flammability and combustion behaviour of cotton and polyester textiles”. ISAEM-2012 The 5th International Symposium on Designing, Processing and Properties of Advanced Engineering Materials, Toyohashi, Japan, 5-8 November, 2012.

11. Keynote invited lecture: “Preparation and characterization of hybrid organic-inorganic nanostructured films”. ICCE-14, Boulder, 2-8 July 2006.

12. Keynote invited lecture: “Preparation and characterization of polymeric thermosetting composites containing reinforcing agents subjected to surface modification”. IVemes Journées sur les Polyméres Organiques et leurs Application, Rabat, 24-25 April 2003.

Giulio Malucelli has been a member of the following scientific and organizing committees of international conferences:
- Member of the Scientific Committee of ECCP 2016 "European Conference on thermally and electrically Conductive Polymers and composites: from lab to market" held in Alessandria (Italy, November 8-10, 2016).

- Organizer of the 2016 COST Flaretex MP 1105 Workshop "Fire retardants & textiles: past, present and future" held in Turin (Italy, 15-16 February 2016).

- Co-organizer of the 2013 COST Flaretex MP 1105 Workshop "Multifunctional textiles based on hybrid coatings and nanoparticles" in Naples (Italy, 17 September 2016).

- Co-organizer of the "Tribology of Materials" section within WTC 2015, 5th World Tribology Congress held in Turin (Italy, 8-13 September 2013).

Giulio Malucelli also co-organized the XXI National Congress of the Italian Macromolecular Association, Turin, Italy, 14-19 September 2014.

Giulio Malucelli has been invited to give more than 30 scientific seminars in numerous institutions, including Universitat Rovira i Virgili of Tarragona, Loughborough University, Beijing Institute of Technology, IPF-Dresden, University "POLITEHNICA" Bucharest, University of Montpellier, University Paris-Est Créteil, ISPA-Institut Supérieur de Plasturgie d'Alençon, University of Rabat, University of Ljubljana, University of Poznan, University of Stellenbosch, University of Bergamo, University of Como, University of Modena and Reggio Emilia, Sapienza University of Rome, University "Federico II" of Naples, University of Catania, University of Salento, Italian National Research Council-Faenza).

He is a founder and member of the Italian Society of Macromolecules (AIM, where he was a member of the Management Committee from 2011 to 2016) and of the Polymeric Materials Unit at the Politecnico di Torino of the Italian Consortium for Materials Science and Technology (INSTM); he joined the "Nanofun-poly" Network of Excellence. From 2013 to 2016 he was a member of the Management Committee of the COST MP1105 Flaretex Action ("Sustainable flame retardancy for textiles and related materials based on nanoparticles substituting conventional chemicals"), where he also coordinated the activities of Working Group #1 on Novel Flame Retardants. He is currently a member of the SISCON Interdepartmental Center - Safety of Infrastructures and Constructions at the Politecnico di Torino.

His main research activities include the synthesis of new reactive oligomers and their photopolymerization, the modification of polymers and coatings with polar or fluorinated structures, their physicochemical and thermo-mechanical characterization, and the study of structure-property relationships. Currently, he is involved in the synthesis and characterization of nanocomposite structures, namely hybrid organic-inorganic coatings ("ceramics") and polymeric nanocomposites containing phyllosilicates, alumina, graphene and graphene-like fillers. Another current research topic is the design, fabrication and characterization of piezoelectric systems for energy harvesting. He is also investigating the fire retardancy of plastic substrates and textiles by exploiting surface engineering methods based on the formation of sol-gel derived oxidic phases or layer-by-layer assemblies.

Giulio Malucelli's research results have been published mainly in first and second quartile journals of materials science and technology (especially polymer science), including ACS Applied Materials & interfaces, Carbohydrate Polymers, Cellulose, Composite Science and Technology, Composite Structures, European Polymer Journal, Journal of Analytical and Applied Pyrolysis, Journal of Applied Polymer Science, Journal of Colloid and Interface Science, Journal of Materials Chemistry, Journal of Materials Science, Journal of Nanoparticle Research, Journal of Polymer Science - Part A, Polymer Chemistry, Journal of Thermal Analysis and Calorimetry, Macromolecular Materials Engineering, Macromolecules, Materials Letters, Materials Science & Engineering R-Reports, Materials Today, Polymer, Polymer Degradation and Stability, Polymer Engineering and Science, Polymer International, Polymers, Progress in Organic Coatings, RSC Advances, Surface & Coatings Technology, Thermochimica Acta, Thin Solid Films, Tribology International).

Giulio Malucelli acts as a reviewer for the most important journals in his field (including Polymer, Polymer International, Journal of Applied Polymer Science, Polymer Degradation and Stability, European Polymer Journal, Macromolecular Chemistry and Physics, Journal of Polymer Science: Part A - Polymer Chemistry, Journal of Polymer Science: Part B - Polymer Physics, Langmuir, Materials Chemistry and Physics, Journal of Photochemistry and Photobiology A: Chemistry, Journal of Materials Chemistry A, Journal of Materials Chemistry B, Polymer Engineering & Science, Polymers for Advanced Technologies, Polymers, Chemical Communications, Biomacromolecules, RSC Advances, New Journal of Chemistry, Microporous and Mesoporous Materials, Materials Science and Engineering C, Advances in Polymer Technology, Journal of Polymer Engineering, Surface and Coatings Technology, Chemical Society Reviews, Macromolecules, ACS Applied Materials & Interfaces, Progress in Organic Coatings, Journal of Thermal Analysis and Calorimetry, Thermochimica Acta, Materials and Design, Tribology International, Industrial & Engineering Chemistry Research, Reviews in Chemical Engineering, Journal of Materials Science, Applied Surface Science, Ceramics International, Polymer Degradation & Stability, Colloids and Surfaces B: Biointerfaces, Composites Part A, Composites Science and Technology, Thin Solid Films, Fibers and Polymers, eXPRESS Polymer Letters, Journal of the American Oil Chemists' Society, Polymer Chemistry, IEEE Transactions on Dielectrics and Electrical Insulation, Chemical Engineering Journal) as well as for CRC Press for book proposal review. In addition, he has been a permanent member of the RSC Advances Reviewer Panel since 2015.

Currently, Giulio Malucelli is a member of the editorial boards of the following journals:
- Polymers (MDPI)
- Molecules (MDPI)
- Applied Nano (MDPI)
- Polymer Degradation and Stability (Elsevier, until October 2024)

He is also editor-in-chief of the "Polymer Analysis and Characterization" section of Polymers (MDPI).