



Biography of Krzysztof Matyjaszewski

Dr. Krzysztof Matyjaszewski, 74, was educated at the Polish Academy of Sciences in Lodz at the Center for Molecular and Macromolecular Studies, the leading Polish research center for higher education and research. After his postdoctoral fellowships at the University of Florida and Universite Pierre et Marie Curie (Sorbonne) in Paris, in 1985, he moved to Carnegie Mellon University (CMU) in Pittsburgh, USA. He currently holds a position of the J.C. Warner University Professor of Natural Sciences in the Department of Chemistry and serves as Director of the Center for Macromolecular Engineering. He also holds courtesy appointments at the Departments of Materials Science and Engineering and Chemical Engineering at CMU, as an adjunct professor at the Department of Chemical Engineering at the University of Pittsburgh, the Polish Academy of Sciences, and Lodz University of Technology in Poland.

Matyjaszewski developed controlled radical and ionic polymerization techniques used to produce a multitude of novel, well-defined polymers, copolymers and hybrid/bioconjugate materials designed for use in existing and developing applications. In particular, his research is directed to the development of a robust and versatile atom transfer radical polymerization (ATRP) and other controlled polymerization techniques and their application to create new materials. Every year more than 1,000 papers per year have been published during the past ten years using the term ATRP. The main reason for this explosive development is the simplicity of ATRP, and the unusual power to prepare tailor-made macromolecules for many special applications, making it attractive for industrial practice. ATRP has been used in essentially every polymer laboratory in the world, not only by chemists but also by physicists, due to its broad scope and robustness. Matyjaszewski published over 1300 peer-reviewed research publications, over 100 book chapters and 25 books, cumulating more than 203,000 citations and corresponding to a "h-index" of 214 (Google Scholar, December 2024) with an average citations annual rate larger than 9,000 over the past 5 years. He holds 72 US patents issued on ATRP, and over 150 original and derived international patents.

Matyjaszewski has received numerous international awards, including the 2023 National Academy of Sciences Award in Chemical Sciences, 2021 Grand Prix de la Fondation de la Maison de la Chimie, France; 2018 Herman Mark Medal, Austrian Polymer Society; 2017 Benjamin Franklin Medal in Chemistry, 2015 International Dreyfus Prize in Chemical

Sciences, 2011 Dannie-Heineman Prize from Göttingen Academy of Sciences, 2011 Wolf Prize in Chemistry, and 2009 Presidential Green Chemistry Challenge Award. The American Chemical Society has recognized him with the 2020 Paul Flory Polymer Educational Award, the 2021 William H. Nichols Medal Award (NY section of ACS), the 2019 Chemistry of Materials Award, the 2011 Applied Polymer Science Award, the 2002 Polymer Chemistry Award and the 1995 Carl Marvel Creative Polymer Chemistry Award. He holds thirteen honorary degrees from the University of Ghent, Belgium, the Russian Academy of Sciences, Lodz Polytechnic, Poland, l'Institut Polytechnique, Toulouse, France, University of Athens, Greece, Pusan National University, South Korea, Université P. & M. Curie, Sorbonne, Paris, France, Technion, Israel, Poznan University, Poland, Padova University, Italy, Coimbra University, Portugal, University of Crete, Greece and Technical University of Rzeszow, Poland.