

## SHORT BIO:

Claudio De Rosa is Full Professor of Industrial Chemistry and Macromolecular Chemistry at the University of Naples “Federico II” (Italy). He has been head of the Chemistry Department of the University of Naples from 2008 to end of 2015. He spent almost two years as visiting scientist at Massachusetts Institute of Technology (MIT) in Cambridge, Massachusetts (1998-1999). Recipient of many prizes awarded by various Italian and international Associations for his research work in the field of Macromolecular Chemistry, in particular, the Young Scientist Award, awarded by the IUPAC Macro Committee (1999).

The research activity comprises the study of the relationships between the molecular and crystalline structures of polymers and their physical and mechanical properties. The objective of these studies is the full understanding of the relationships between the structure of the catalysts used for the synthesis of polymers, the molecular structure dictated by the catalyst, the crystal structures of polymers and the physical and mechanical properties of materials. Knowledge of these relationships allows tailoring the physical properties of materials through the design of the catalyst. A further research activity is the study of nanostructures formed by self-assembly and phase separation associated with crystallization of semicrystalline block copolymers. A method based on the epitaxial crystallization of the crystallizable block onto the surface of a crystalline substrate has been developed to produce ordered nanostructures and patterning of a polymer film surface. The results of this study have been published in the prestigious journal *Nature*.

Claudio De Rosa is author of about **370 papers** published in international scientific journals, of various patents and many chapters of books and of a book published by John Wiley & Sons in 2014 titled “**Crystals and Crystallinity in Polymers: Diffraction Analysis of Ordered and Disordered Crystals**”. The scientific production is summarized by the value of the Hirsh Factor (HF) equal to 59 with about 13000 citations (Scopus).

He has been member of the Advisory Editorial Boards of the two most important journals in the field of polymer science, that is, “*Macromolecules*” (2003-2007) and “*Polymer*” (since 2004). He is also member of the Advisory Editorial Board of “*Polymer Crystallization*” (since 2018) and “*Polymers*” (since 2018).