



## **Prof. Roberta Cipullo**

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### **Short BIO**

Prof. Cipullo is full professor in General and Inorganic Chemistry at Federico II University of Naples in Italy. She is President of the Bachelor's Degree Program in Chemistry at the Federico II University of Naples.

In 2013 she co-founded HTEExplore s.r.l., an academic Spin-off of the Federico II University providing state-of-the-art High Throughput Experimentation (HTE) services in organometallic catalysis. On 3 December 2020, the company was acquired by a multinational chemical company, and since then continues to operate under the name of Xplore s.r.l.

She just co-founded D3C s.r.l, another academic Spin-off of the Federico II University, aiming to provide automated tools for the (a) digitalization, curation, defragmentation and visualization of HTE data, (b) data assembly into large and easily searchable databases, (c) automated Design of Experiment (DoE), and (d) statistical data analysis by means of Quantitative Structure-Properties Relations (QSPR) modeling, preferably as an integrated workflow.

Her main research interest lies in selective organometallic catalysis, with special focus on catalytic olefin polymerizations.

In this general area, more specific topics are:

- High-field microstructural characterizations of vinyl polymers, particularly by means of high-resolution NMR methods
- Molecular and Heterogeneous Ziegler-Natta catalysts
- Molecular kinetics of organometallic catalytic reactions
- High Throughput Experimentation (HTE) tools and methods for the discovery and screening of organometallic catalysts, and fast exploration of the variables hyperspace of complex chemical processes
- Data Science and Machine Learning/Artificial Intelligence Approaches in Olefin Polymerization and Beyond.

She is (co)author of more than 130 scientific papers in international journals and of 17 industrial patents (Scopus: H-Index = 42; Number of Citations = 5639).