

Katrien Bernaerts graduated as a licentiate (master) in chemistry from Ghent University (Belgium) in 2000. From 2000 – 2005 she performed in PhD in polymer chemistry in the group of Prof. Du Prez at Ghent University (Belgium) on the synthesis and evaluation of stimuli responsive copolymer architectures by combination of different polymerization techniques. After PhD, Katrien spent 7 years in industry (Agfa, Teijin Aramid, DSM), doing research in the field of coatings and fibers. Since 2012, she holds an academic position at Maastricht University, where she is currently Associate Professor Sustainable Polymer Synthesis.

Her main research focus is on the design and synthesis of sustainable polymer materials with tuneable properties for the circular economy. Sustainability entails biobased building blocks (but no biorefinery) instead of fossil raw materials, green routes for polymer synthesis and processing, as well as chemical recycling/reprocessing methods (biodegradability, depolymerization, dynamic bonds) to make the end-of-life of polymers more sustainable. Structure-property relationships of the resulting polymers are evaluated in several fields of application e.g. stimuli-responsive polymers, coatings, fibres, engineering plastics and biomedical materials. Growing focus on the use of artificial intelligence techniques to support and accelerate the experimental work, e.g. data interpretation and prediction of structure-property relationships.