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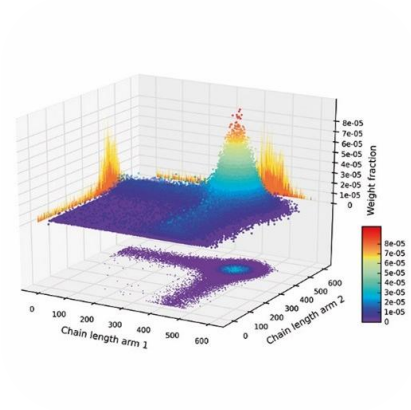
CAPABILITY




# Tailored Polymer Processes

## MODEL-BASED DESIGN OF POLYMER SYNTHESIS, DEGRADATION AND POST-REACTOR PROCESSES

**KEY WORDS**

PROCESS MODELING,

POLYMER PROCESS OPTIMIZATION,

KINETIC MODELING

**DESCRIPTION**

Development of high-fidelity, ad-hoc models of polymer synthesis, degradation and post-reactor processes
What-if analysis
Model-based design of processes for tailored product properties
Optimization of process conditions and definition of new operating policies
Theoretical modeling of the reaction process able to predict the molecular properties of (co)polymers
Estimation of kinetic parameters
Simulation, optimization and control studies of polymerization processes

**APPLICATIONS**

Polymer process modeling
Custom process design
Synthesis process optimization
Post-reactor modification design
Degradation process modeling
What-if scenario analysis
Kinetic parameter estimation
Molecular property prediction
Process simulation studies
Process control strategies
Operational policy optimization
Scale-up support
Product property targeting
Copolymer design optimization

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