An Integrated HTE/ML Approach to Catalytic Coordination Polymerizations
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High Throughput Experimentation (HTE) has profoundly innovated the approach to catalytic coordination polymerizations. HTE workflows aimed at catalyst discovery and/or optimization must include advanced polymer characterization tools. Progress in recent years has been very significant, and several high-end techniques (e.g. Size Exclusion Chromatography, $^{13}$C NMR spectroscopy, Crystallization Elution Fractionation, micro-capillary rheometry) can now be operated at mg scale in high-throughput mode.\(^{(1)}\)

The approach is now being integrated with Artificial Intelligence instruments such as Machine Learning (ML), for statistical data modeling with predictive ability.\(^{(2)}\)
Some examples of application to catalytic olefin polymerization will be illustrated and discussed.
