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Conversion of Calibration Curves for Accurate Estimation of Molecular Weight

Averages and Distributions of Polyether Polyols by Conventional Size Exclusion

Chromatography

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Highlights
- New approaches to convert SEC calibration curves were developed
- These were applied to convert PS-based calibration to polyol-based calibration
- Polyol based calibration yielded accurate molecular weight averages for unknowns
- The approaches can be applied to any pair of SEC calibration curves

ABSTRACT

Accurate measurement of molecular weight averages ($\bar{M}_n, \bar{M}_w, \bar{M}_z$) and molecular weight

distributions (MWD) of polyether polyols by conventional SEC (size exclusion

chromatography) is not as straightforward as it would appear. Conventional calibration

with polystyrene (PS) standards can only provide PS apparent molecular weights which