Review of: "Analysis method of binary concentration-inhomogeneous systems"

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Potential competing interests: No potential competing interests to declare.

The paper presents a methodology to estimate the degree of polymerization heterogeneity of a sample. The approach permits to evaluate the distribution of mass at different polymer concentrations by relating experimental measurements of extensive properties in the heterogeneous polymer/monomer system, to those obtained in the same system with different homogeneous polymerization degrees.

The paper is surely interesting for the scientific community, but I suggest to address the following points:

1. Figure 1 displays specific heat against temperature for different x values, from a purely qualitative point of view. A quantitative analysis should be added by referring to experimental results. It would be interesting to know whether x1, x2, x3 take increasing/decreasing values. Also, is this behaviour followed by systems other than PMMA? Glass transition temperature is not shown, but it appears to be the same for both x2 and x4 systems. Maybe the author could comment on that.
2. Even though the author claims to have used the methodology in a previous publication (ref.7), it would be useful to present a test of it in order to stress the validity of the approach. Additionally, considering different theoretical models for M(x) could be enlightening.
3. Could this methodology be of some use at predicting the glass transition temperature of heterogeneous polymeric systems?