Polymer Blends & Composites

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Morphology Development of a PS/PMMA Blend during Start-up of Uniaxial Elongational Flow

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The morphology development of a PS/PMMA blend has been investigated during uniaxial elongational flow. For this purpose linear conservative dichroism measurements are used to obtain time-resolved information on dilute blends. In addition, Scanning Electron Microscopy (SEM) is performed on quenched samples. With the former technique, the evolution of the deformation of the blend is studied in real time, whereas the latter technique was used for imaging individual deformed droplets. It is shown that the droplet deformation is affine for the conditions under investigation.