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Deformation and relaxation of unmodified and copolymer modified PS/PE blend during shear and elongational flows

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Deformation and relaxation of a single and multiple PS drops in PE matrix without and with the presence of a copolymer during both uniaxial elongational flow and shear flow was studied using an on-line optical system mounted on the RME elongational rheometer and on the Paar Physica rotational rheometer. Drop deformation results were compared to recent viscoelastic models. Rheological material functions for dilute mixtures were also measured and the obtained results were compared to some recent models.