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Single chain mobility at an interface of a liquid polymer[1] JINGFA YANG, JIANG ZHAO, Institute of Chemistry, Chinese Academy of Sciences, Beijing, China — Interfacial diffusion of single chains of polystyrene-b-polyisoprene (PS-b-PI) at the interface between polyisoprene and its non-solvent, DMF, was studied by fluorescence correlation spectroscopy. The diffusion coefficient of PS-b-PI probe was found to be two orders of magnitude high than that in the bulk PI, indicating a lower interfacial viscosity. The experimental data also exhibit a very weak dependence of the interfacial diffusion coefficient on the molecular weight of the liquid polymer. The possible mechanism was discussed.

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