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The effect of molecular architecture on segmental and chain dynamics in poly(styrene$_n$-isoprene$_n$) miktoarm block copolymers[1] THOMAS KINSEY, JOSHUA SANGORO, University of Tennessee, WEIYU WANG, Oak Ridge National Laboratory — Poly(styrene$_n$-isoprene$_n$) miktoarm block copolymers have been investigated by broadband dielectric spectroscopy to determine the effect of molecular architecture on chain and segmental dynamics. In contrast to linear PS-*b*-PI systems of the same morphology, a slow PI chain relaxation emerges for the miktoarm systems. This additional dielectric process is attributed to differences in the molecular architecture. The results are discussed within the framework of Milner theory and recent models of polymer dynamics.

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