

Abstract Submitted  
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**Isothermal compressibility effects in glass-forming liquids and polymers** WENJUAN LIU, RALPH COLBY, Penn State University, JANE LIPSON, Dartmouth College — We develop a simple model to account for the effects of density fluctuations in the dynamics of glass-forming liquids and polymers. The magnitude of the density fluctuation of any liquid is proportional to isothermal compressibility. As the isothermal compressibility at the glass transition increases, the (segmental) relaxation time distribution measured by dielectric spectroscopy broadens and the fragility of the glass-former diminishes. Exceptions to these rules are interesting and will be discussed in detail.

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