

Supporting Information

Surface diffusion in glasses of rod-like molecules posaconazole and itraconazole: Effect of interfacial molecular alignment and bulk penetration

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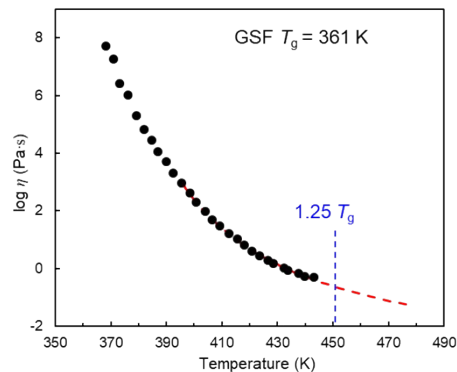


Figure S1. Viscosity of GSF liquid.¹ The red dashed line is a VFT fit of the viscosity data between 396 and 443 K and extended to higher temperature. The viscosity of GSF at $1.25 T_g$ (vertical line) is estimated to be 0.25 Pa·s.

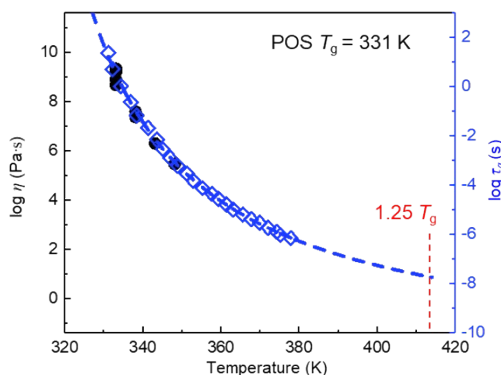


Figure S2. Viscosity and structural relaxation time of POS. Solid circles are calculated viscosity from surface grating decay rates (this work) assuming $\gamma = 0.05 \text{ J/m}^2$. Open diamonds are the structural relaxation time τ_α from dielectric spectroscopy.² The dashed curve is a VFT fit of τ_α . The two y axes are related by $\log \eta (\text{Pa}\cdot\text{s}) = \log \tau_\alpha (\text{s}) + 8.6$. The viscosity of POS at $1.25 T_g$ is estimated to be 7 Pa·s.

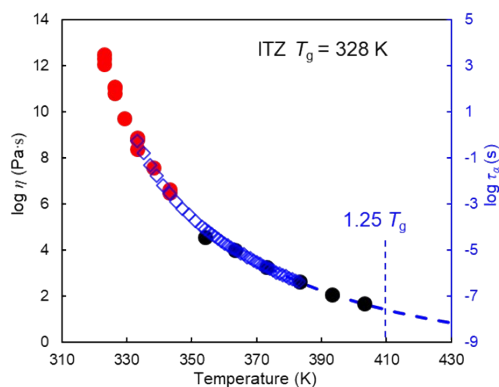


Figure S3. Viscosity and structural relaxation time of ITZ. Black circles are viscosity data from Ref.3. Red circles are calculated viscosity from surface grating decay rates (this work) assuming $\gamma = 0.05 \text{ J/m}^2$. The two methods of viscosity measurement are in good agreement. Open blue diamonds are the structural relaxation time τ_α from dielectric spectroscopy.⁴ The dashed curve is a VFT fit of τ_α . The two y axes are related by $\log \eta (\text{Pa}\cdot\text{s}) = \log \tau_\alpha (\text{s}) + 9$. The viscosity of ITZ at $1.25 T_g$ is estimated to be $25 \text{ Pa}\cdot\text{s}$.

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⁴ M. Tarnacka, K. Adrjanowicz, E. Kaminska, K. Kaminski, K. Grzybowska, K. Kolodziejczyk, P. Włodarczyk, L. Hawelek, G. Garbacz, A. Kocot and M. Paluch, *Phys. Chem. Chem. Phys.*, 2013, **15**, 20742-20752.