



# Isomerization of azobenzene and the enhancement of dynamic heterogeneities in molecular glass formers

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Résumé en anglais	Prompted by recent findings [Teboul, Saiddine, and Nunzi, Phys. Rev. Lett. 103, 265701 (2009); Orsi et al., Phys. Rev. E 82, 031804 (2010)] that the isomerization of few azobenzene molecules dispersed in a glass former greatly enhances the dynamic heterogeneity (DH) of the medium, we raise the issue as to whether the isomerization process gives rise to additional DHs or whether instead it stimulates the mechanisms at the origin of the thermal DHs, accelerating them in time. To this end, molecular dynamics simulations are made to study the much insightful four-point susceptibility, dynamic facilitation, and Van Hove correlation functions both when the isomerization is activated and when it is artificially switched off. Our results do not rule out any of the two scenarios as a possible cause for the enhancement of DHs upon switching on the isomerization process, but clearly show that the second one is by far the dominant mechanism in the dynamics of the supercooled liquid.
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