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The role of picosecond dynamics in relaxation of molecular glasses[1] MARCUS CICERONE, QIN ZHONG, FENG DING, JACK DOUGLAS, MADHUSUDAN TYAGI, DAVID SIMMONS, National Institute of Standards and Technology — The importance of the relative amplitude of elemental relaxation processes, specifically of the fast β relaxation process ($<u^2>$), to long-time relaxation processes have been emphasized in a number of theoretical models. In this talk I will focus on transport properties and their relationship to $<u^2>$ in supercooled liquids and glasses. In these studies we use antiplasticization to systematically tune molecular packing. These results provide insights into the role that localization and the concomitant emergence of an excess density of states plays in relaxation of and transport in molecular glasses.

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Marcus Cicerone
National Institute of Standards and Technology

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