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Out-of-Equilibrium to In-Equilibrium Dynamics of SiO_2[1] KATHARINA VOLLMAYR-LEE, JAKE ROMAN, Bucknell University, JUERGEN HORBACH, DLR, Koeln, Germany — We study the aging dynamics of SiO_2 (modeled by the BKS model) via molecular dynamics simulations. The system is well equilibrated at temperature $T_{\rm high}$, then quenched to $T_{\rm low}$ and observed after a waiting time $t_{\rm wait}$. We present results for the structure factor, for the mean squared displacement, and for the intermediate scattering function. The resulting relaxation times show for the largest investigated $T_{\rm low}$ that during the simulation run the system is first out-of equilibrium and then reaches equilibrium with relaxation times independent of $T_{\rm high}$ and $t_{\rm wait}$.

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