

Abstract Submitted
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The Extent of the Superglass Phase of Binary Mixtures SEA HOON LIM, BOB BELL, None — In this work, we attempt to map the extent of the superglass phase of Kob-Anderson Lennard-Jones (KALJ) binary mixtures via Path Integral Monte Carlo (PIMC). At low temperatures, KALJ binary mixtures are capable of avoiding crystallization, yet exhibit superfluidity only for certain parameterizations of the KALJ potential. Using PIMC, we observe superfluidity in our mixtures for $\varepsilon \leq 1.375 \varepsilon_{\text{He}}$. For $\varepsilon > 1.375 \varepsilon_{\text{He}}$, exchange among particles is dramatically reduced. Future work will explore the dynamics of our mixtures for $\varepsilon \leq 1.375 \varepsilon_{\text{He}}$ to ascertain whether they are not just superfluid, but glassy as well.

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None

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