

## **How hard is it to form a glass? Insights from beyond 3D**

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Most glasses form under conditions where the thermodynamically stable state of the system is crystalline. Good glass formers should therefore be poor crystallizers. Geometrical frustration is one of the factors that prevent crystallization and therefore help glass formation. Simple liquids are often considered frustrated because the five-fold symmetry of icosahedral clusters cannot tile a regular lattice. This contrasts with what happens in a fluid of two-dimensional disks, where hexagonal order is both locally and globally preferred and where crystallization is particularly facile. Yet the nature of frustration in three dimensions is ambiguous. To learn more about frustration, jamming, and glass formation, we explore the properties of hard spheres in three and more dimensions.