

Abstract Submitted
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Cluster Growth in Aqueous Sugars Observed by Dynamic Light Scattering¹ TRI TRAN², DAVID SIDEBOTTOM, Creighton University — Dynamic light scattering of aqueous sugar solutions as a function of sugar concentration and temperature reveal the development of sugar clusters occurring in two stages. At low volume fractions of sugar, a so-called cluster phase consisting of nearly monodisperse clusters forms with a mean cluster mass that increases in proportion to the volume fraction. At a critical volume fraction, near where the clusters begin to overlap, a second stage ensues wherein cluster-cluster aggregation forces a more rapid, power law growth in advance of a percolation threshold observed near 83 wt% sugar.

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²first year graduate student will present

Tri Tran
Creighton University

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