

Defect structure and percolation in the packing of bidispersed particles on a sphere

Andrew M. Mascioli, Christopher J. Burke, Mathew Q. Giso, and Timothy J. Atherton*

*Department of Physics and Astronomy, Tufts University,
574 Boston Avenue, Medford, Massachusetts 02155, USA*

ELECTRONIC SUPPLEMENTARY INFORMATION

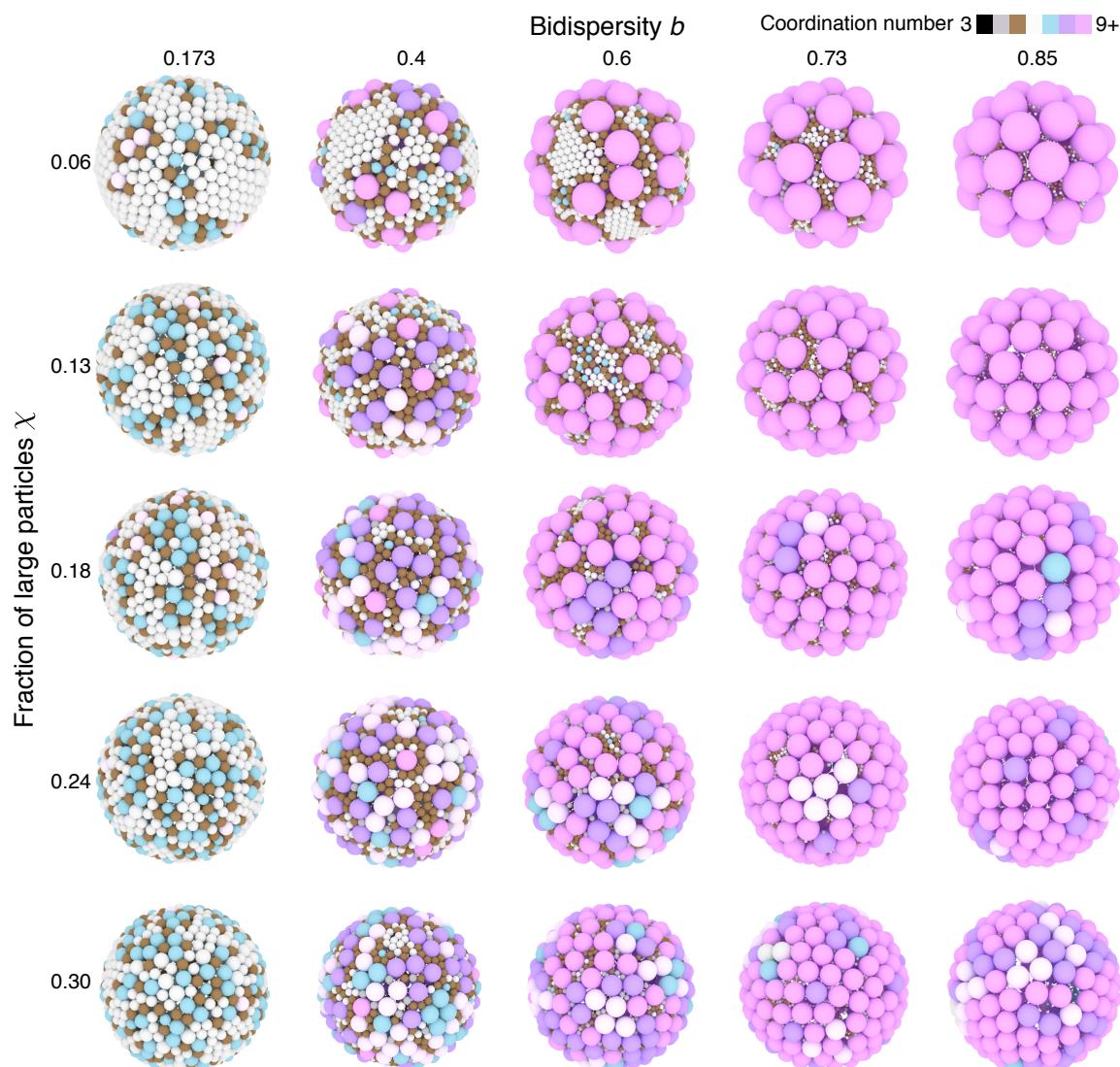


Figure S1. Representative packings colored by coordination number as a function of bidispersity b and fraction of large particles χ .

* timothy.atherton@tufts.edu

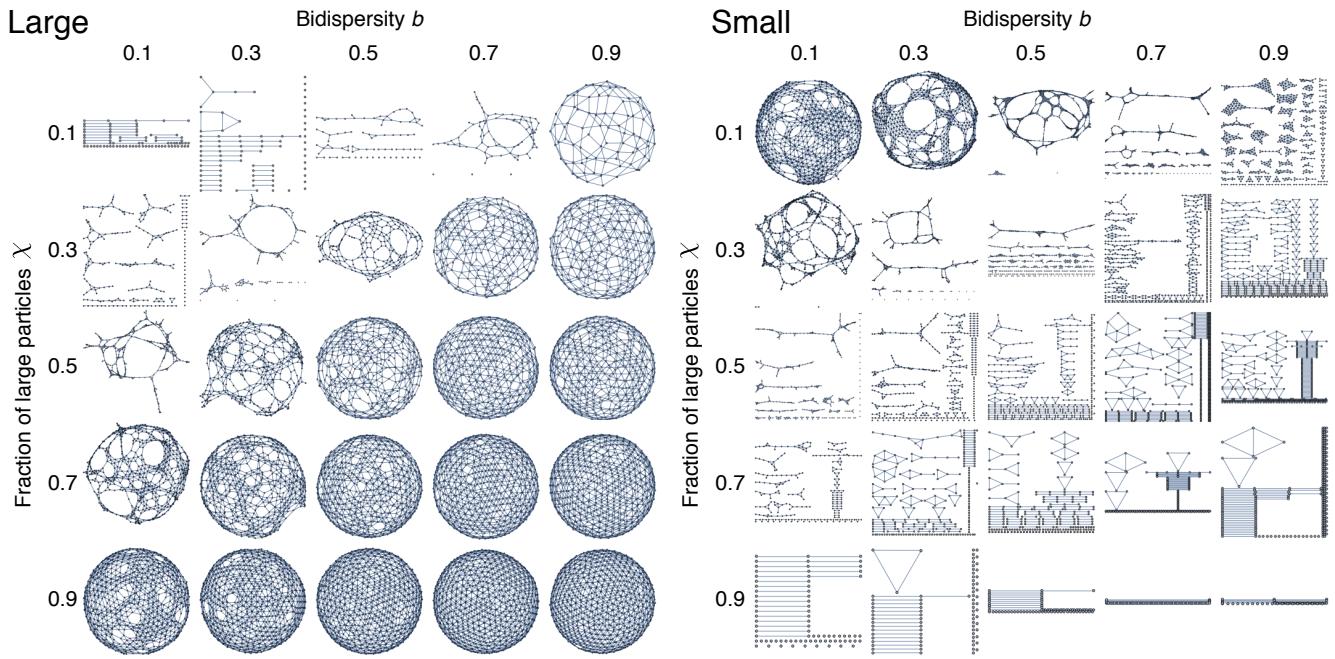


Figure S2. Neighbor subgraphs of (left) large and (right) small particles as a function of b and χ .

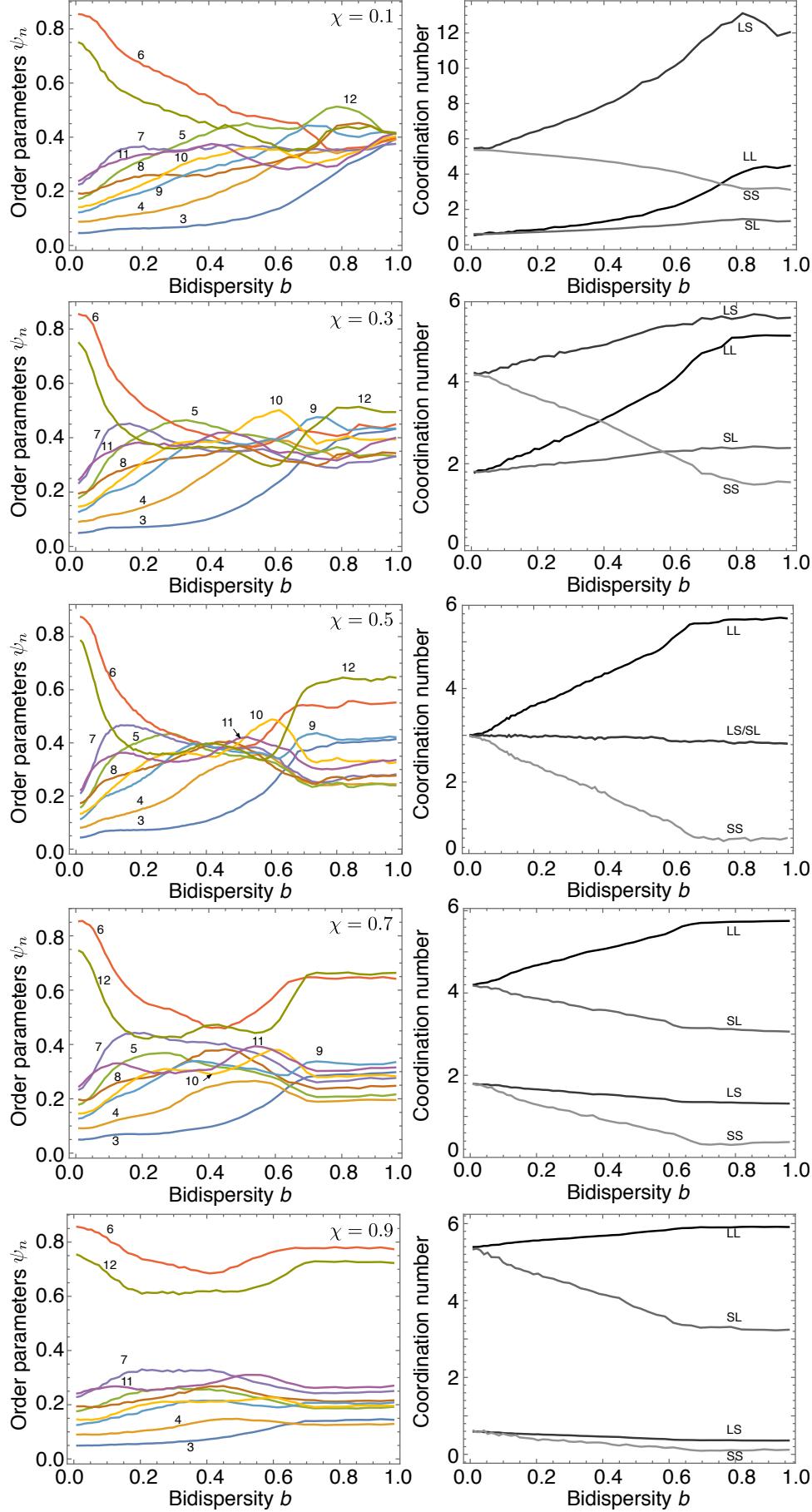


Figure S3. Order parameters ψ_n and coordination numbers for different χ . Coordination numbers for Large-Large, Large-Small (number of small particles around a large particle), Small-Large and Small-Small are shown.

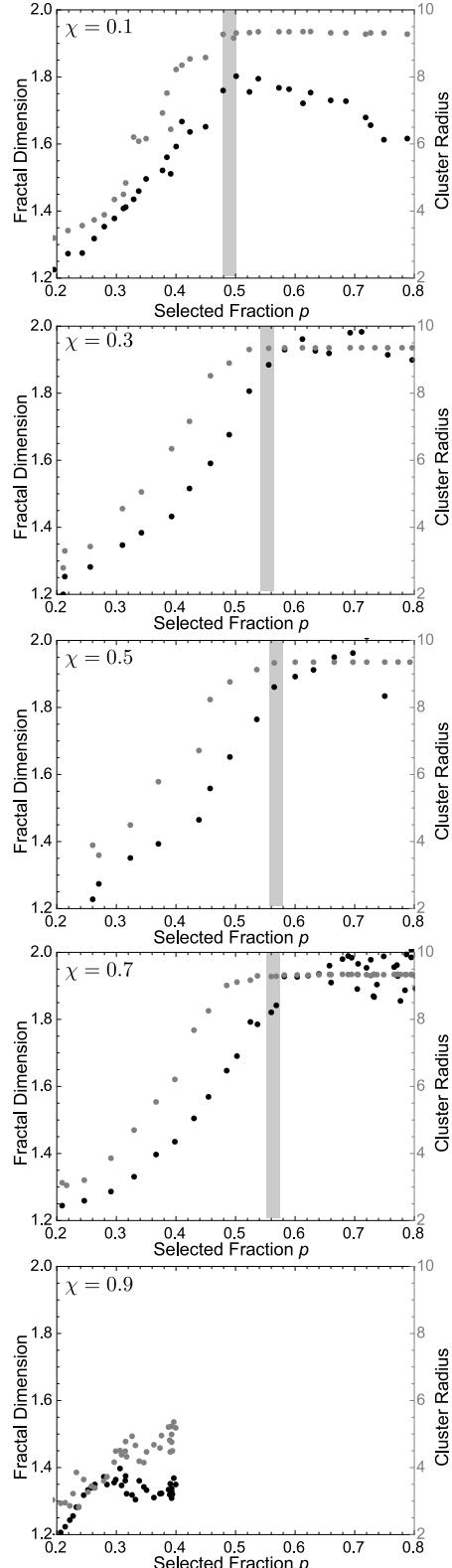


Figure S4. Fitted fractal dimension of the cluster size as a function of the selected fraction for bidispersed neighbor graphs (black points) and cluster size as a function of selected fraction (grey points) for varying stoichiometry χ . The vertical gray bar in each plot indicates where the cluster size has saturated due to finite system size.