

Self-Limited Self-Assembly of Chiral Subunits

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A simple computational model demonstrates the assembly of self-limited filamentous bundles. The images are taken from dynamic Monte Carlo simulations in which chiral subunits spontaneously assemble under different interaction strengths and degrees of chirality. **(a)** Moderate interactions and moderate chirality reproducibly lead to a self-limited bundle with three layers of subunits, while stronger chirality **(b)** results in a self-limited two-layer bundle. **(c)** With strong interactions, frustration is relieved by defects, which enable the formation of branched networks and irregular bundles. These complex structures, which spontaneously emerge from the dynamical simulations, could not have been predicted with geometrical equilibrium arguments.

