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Structural Analysis and Properties of Supramolecular Assemblies

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Supramolecular and particle assembly is controlled by the shape and interaction among the constituents, and there is great interest involving asymmetric systems. Here we explore physical rules and behavior governing the assembly of anisotropic molecules and particles. These are wedge and conical shaped amphiphilic molecules and asymmetric particles. Diffraction and microscopy are used to determine the assembled structures (such as tubes and capsules) and to establish relationships between structures in systems that undergo transitions from one ordered state to another.