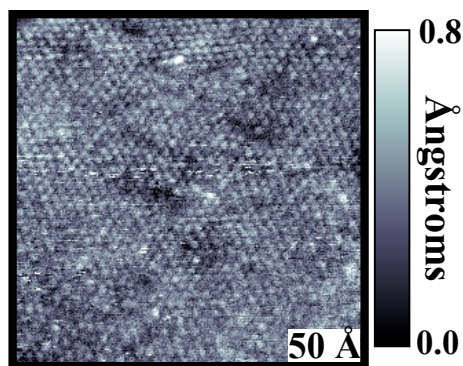


New Families of Molecules for Self-Assembly

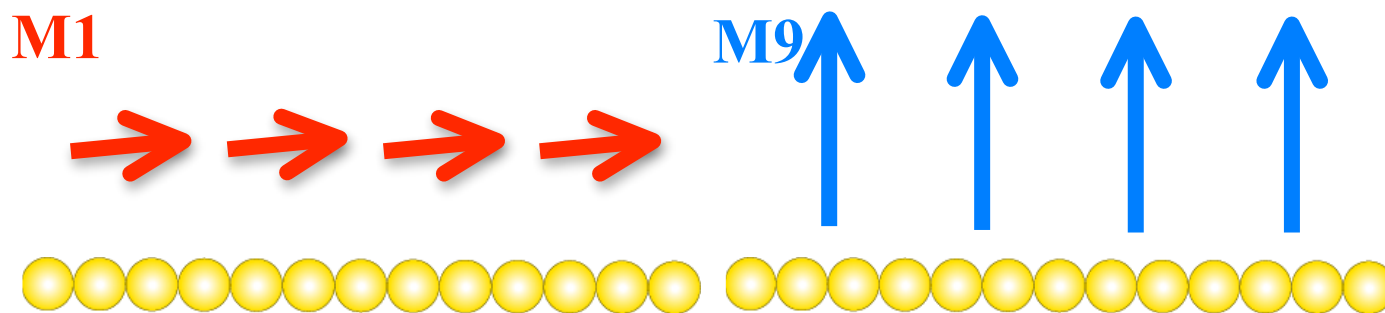
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Molecularly resolved images show high-quality monolayers with selectable properties

Cage molecules offer directional interactions and opportunities to build three-dimensional superstructures. The Penn State Center for Nanoscale Science has developed new families of molecules, using carbon, and carbon/boron cages that offer new possibilities in self-assembly.

This work is being transitioned through collaborations between the Center for Nanoscale Science, Sigma-Aldrich, and the Penn State node of the NSF-funded National Nanotechnology Infrastructure Network.



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By choosing the orientation of the molecular dipoles on surface, the stabilities and interaction strengths can be selected.