

Large single domain array of supramolecular dendrimer building block in a double-sandwich cell

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It is very difficult to generate large-area single domain ordering using supramolecular dendrimer because of their complex architectures and multiple site for intermolecular interactions, though numerous merits of supramolecular dendrimer for new building block for bottom-up lithography. In the study, we report a simple and general method to create ultra-dense, single domain arrays of dendrimer cylinders (ca. 4.5 nm diameter) over large areas (0.3 mm x 0.3 mm) by utilizing sandwich system. We believe that the observations made in this effort should serve as the foundation for the design of new routes for bottom-up lithography based on dendrimers.