

Abstract Submitted
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Guided Organization of λ -DNAs into Microring-Arrays from Liquid Capillary Microbridges MYUNGHWAN BYUN, SUCK WON HONG, JINWOO CHO, ZHIQUN LIN, FUNCTIONAL POLYMERIC NANOCOMPOSITES TEAM — Well-ordered, mesoscale λ -DNA ring-arrays have been successfully produced via controlled evaporative self-assembly with capillary actions in liquid capillary microbridges. The dimension of the λ -DNA microrings can be readily tuned by the choice of the PDMS molds. This approach opens a new avenue to utilize evaporative self-assembly as an alternative to conventional lithographic techniques for generating biomolecular patterned arrays in a simple, precise, and cost-effective manner. Using this facile and robust route, a great variety of biomaterials can easily and precisely organized into well-ordered ring arrays, which may have potential applications in functional scaffolds for cell and tissue growth, biosensors, etc.

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