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Capillary-Induced Self-Organization of Soft Pillar Arrays into Moiré Patterns by Dynamic Feedback Process SUNG KANG, NING WU, ALISON GRINTHAL, JOANNA AIZENBERG, School of Engineering and Applied Sciences, Harvard University — We report a self-organized pattern formation of polymer nanopillar arrays by dynamic feedback: two nanopillar arrays collectively structure a sandwiched liquid and pattern the menisci, which bend the pillars into Moiré patterns as it evaporates. Like the conventional Moiré phenomenon, the patterns are deterministic and tunable by mismatch angle, yet additional behaviors—chirality from achiral starting motifs and preservation of the patterns after the surfaces are separated—appear from the feedback process. Patterning menisci based on this mechanism provides a simple, scalable approach for making a series of complex, long-range-ordered structures. Reference: Sung H. Kang, Ning Wu, Alison Grinthal, and Joanna Aizenberg, Phys. Rev. Lett., **107**, 177802 (2011).

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