

Abstract Submitted  
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**Solvent-Assisted Formation of Nanostrand Networks of Supramolecular Diblock Copolymer-Surfactant Complexes at the Air-Water Interface** C. GERALDINE BAZUIN, QING LU, University of Montreal — A block copolymer of majority styrene and minority vinylpyridine (PS-*b*-P4VP; PS 40K, P4VP 5.6K) mixed with a stoichiometric amount (relative to the VP block) of hydrogen-bonding 3-*n*-pentadecylphenol (PDP) was investigated at the air-water interface and as transferred films imaged by AFM. By respecting the conventional waiting period to allow solvent evaporation following spreading of the polymer solution on the Langmuir bath and before barrier compression, circular aggregates of variable sizes were obtained at moderate surface pressures. When, instead, the barriers were compressed to the same surface pressures as soon as possible after spreading, a dense and infinite network of nanostrands was obtained. This phenomenon may be attributed to the solvent maintaining the necessary flexibility for the polymer chains to undergo reorganization in response to the change in surface pressure.

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