

Abstract Submitted  
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**Surface segregation of end-functionalized homopolymers in a homopolymer matrix** MICHAEL DIMITRIOU, UCSB, CHENG WANG, KRISTIN SCHMIDT, HARALD ADE, CRAIG HAWKER, EDWARD KRAMER — Surface segregation of end-functional poly(2-vinylpyridine) in a blend with P2VP was measured by X-ray photoelectron spectroscopy. A series of chain end functionalized P2VP homopolymers were synthesized *via* either anionic polymerization or Reversible Addition Fragmentation Chain Transfer (RAFT) and end capped with either a single fluorinated oligomer or a perfluorinated dendrimer. The degree of end functionalization was characterized using NMR spectroscopy, IR spectroscopy and gel permeation chromatography. Further surface characteristics were determined using Near Edge X-ray Absorption Fine Structure Spectroscopy and Resonant Soft X-ray Reflectivity. When 5wt% P2VP end capped with a perfluorinated dendrimer was added a top layer saturated with fluorocarbons formed. It was also found that the surfactant segregation is dependant on its ability to form micelles.

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