Nanostructured Polymer Membranes for Selective Alcohol Transport

ASHISH JHA, LIANG CHEN, NITASH BALSARA, UC Berkeley — We have examined the possibility of using A-B block copolymers for selective separation of alcohols from aqueous mixtures. The A block is not soluble in the liquids of interest and serves as the structural block while B serves as the transporting block. The size and geometry of the transporting channels have been controlled by varying the molecular weight and composition of the copolymer. Experimental results that reveal the interplay between membrane transport and underlying membrane morphology will be presented.