

Publication Abstracts - Pervaporation

J. G. Wijmans, A. L. Athayde, R. Daniels, H. D. Kamaruddin, and I. Pinnau, "The Role of Boundary Layers in the Removal of Volatile Organic Compounds from Water by Pervaporation," *Journal of Membrane Science* 109, 135-146 (1996).

Removal of volatile organic compounds from water by pervaporation is dominated by boundary layer effects (concentration polarization). The paper presents a rigorous treatment of concentration polarization, including the contribution of convective flow to transport in the boundary layer, using the resistances-in-series model. The model is then used to define the selectivity of the pervaporation process.