Activated Desorption of Water from a Polymer Surface

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braska at Lincoln, Lincoln, NE — We studied water adsorption and desorption on
the dipole ordered polymer poly(methylvinylidene cyanide) PMVC. The polymer
has a distinct bulk absorbed water phase. The absorption of water is believed to
distort the polymer chain placement. The kinetic parameters are obtained from
thermal desorption spectra. Arrhenius plots yield the activation energy and the
order of desorption process is determined from the best linear fit in the Arrhenius
plots. Unusual angular dependence in thermal desorption is also observed.