Abstract Submitted
for the MAR13 Meeting of
The American Physical Society

Desorption Kinetics of Water from Poly (methyl methacrylate) Films and other Polymer Films CAROLINA ILIE, THORIN KANE, Physics Department, SUNY Oswego, ROSS NETUSIL, Chemistry Department, SUNY Oswego, ANASTASIA YORKE, Physics Department, SUNY Oswego — We present herein the water desorption from the dipole oriented poly (methyl methacrylate) PMMA. Water desorption from PMMA presents the "ice species" at 150 K and a bulk peak at about 280 K. We note that the desorption peak temperature does not vary greatly with increasing coverage. The energy of desorption is obtained by employing the Arrhenius and Polany-Wigner equations. The comparison with previous thermal desorption spectra of water from two ferroelectric polymers is also discussed. [1] Dowben, P.A., Rosa, Luis G., Ilie, C.C., Zeitschrift für Physikalische Chemie 222 (2008) 755-778. [2] Ilie, C.C., Rosa, L.G., Poulsen, M., Takacs, J., Integrated Ferroelectrics (2011) 125:1, 98-103.

Carolina Ilie
Physics Department, SUNY Oswego

Date submitted: 09 Nov 2012 Electronic form version 1.4