Abstract Submitted
for the OSS11 Meeting of
The American Physical Society

Measurements of Large Dielectric Constants in Phthalocyanine Tetramers KHALIL HAMAM, C.A. BURNS, G. MEZEI, M. AL-AMER, Western Michigan University — Understanding the dielectric constant of organic materials is important for applications including organic transistors and photovoltaics. We have measured the dielectric constant and dissipation factor of oligomer metal-phthalocyanine (MePcs) pellets. Zn and Cu based tetramers $(MeC_{30}H_{10}N_8O_8)_4$ are water soluble materials with high dielectric constant. We investigated these materials in the frequency range 20–10^6 Hz and at temperatures up to 110 $^\circ$ C. Both the dielectric constant and dissipation factor were found to increase strongly with temperature and to decrease with frequency.

Khalil Hamam
Western Michigan University

Date submitted: 24 Feb 2011 Electronic form version 1.4