

Abstract Submitted  
for the SES05 Meeting of  
The American Physical Society

**Magnetic properties of  $\text{Rb}_j\text{Co}_4[\text{Fe}(\text{CN})_6]_k \cdot n\text{H}_2\text{O}$  Prussian blue nanoparticles**<sup>1</sup> N.E. ANDERSON, J.-H. PARK, M.W. MEISEL, Dept. of Physics, Univ. of Florida, J. LONG<sup>2</sup>, F. FRYE, D.R. TALHAM, Dept. of Chemistry, Univ. of Florida — Magneto-optically active Prussian blue materials are of considerable interest because of their many possible applications.<sup>3</sup> Nanoparticles of  $\text{Rb}_j\text{Co}_4[\text{Fe}(\text{CN})_6]_k \cdot n\text{H}_2\text{O}$  have been synthesized, and TEM images indicate that clusters of 5 nm particles were obtained. Furthermore, the particles appear to show weak photo-induced effects similar to those reported in bulk materials. Here, we present preliminary data to illustrate the magnetic characteristics of these new materials. J. Long was a NSF-REU participant (NSF CHE-0353828).

<sup>1</sup>This work was supported, in part, by the National Science Foundation DMR-0305371 (MWM) and NSF DMR-0543362 (DRT).

<sup>2</sup>J. Long was a NSF-REU participant (NSFCHE-0353828).

<sup>3</sup>J.-H. Park, E. Cizmar, M. W. Meisel, Y. D. Huh, F. Frye, S. Lane, and D. R. Talham, *Appl. Phys. Lett.* **85**, 3797 (2004).

Norman Anderson  
Dept. of Physics, Univ. of Florida

Date submitted: 09 Aug 2005

Electronic form version 1.4