
Dr. Elisabeth S. Knowles, PhD in Dec. 2013
*Strain-Mediated Photomagnetic Effects in Prussian Blue Analogues*

Pedro A. Quintero, PhD projected in 2015
*Transport and Photomagnetic Effects in Prussian Blue Analogues and other fun stuff*

Marcus K. Peprah, PhD projected in 2015
*Pressure and Photomagnetic Effects in Prussian Blue Analogues and other fun stuff*

Dr. Tatiana V. Brinzari, PhD in Chemistry 2012 (UT-Knoxville)
*Photomagnetic Effects in Magnetic Nanoparticles and Optical Properties of Prussian Blue Analogues and other fun stuff*

Graduate Students

Undergraduate Students

Video available!

Meet the Condensed Matter Faculty: “Magnetolomics” Recruiting Pitch (7 min limit) Session 02 Dec 2013

Mark W. Meisel
Elisabeth Knowles, Dan Talham, Olivia Risset, Mattheiu Dumont, Marcus Peprah, Matthew Andrus, Carissa Li, Divya Rajan, MWM, Corey Gros, Yitzi Calm, Akhil Ahir, Pedro Quintero
New heterostructures of molecule-based magnets….

… and Co-Fe oxide core@shell heterostructured nanoparticles!

Work supported by the National Science Foundation (NSF) via DMR-1202033 (MWM) and DMR-1157490 (NHMFL), the UF Division of Sponsored Research through the UF Center for Tomorrow’s Materials (Today!).

D. M. Pajerowski et al., JACS 132 (2010) 4058

Spin Crossover Fe(II) complexes on nanopatterned Au substrates?

aka “Magnetolomics” NOT found via Google
But there is more brewing…

**Quantum Spin Chains and Planes**

- MnF(salen) an $S = 2$ Haldane Chain (NOT!)
- $[\text{Ni(HF}_2\text{)}(3\text{-Clpy)}_4]\text{BF}_4$ an $S = 1$ chain with $D/J = 1$? (a new Quantum Critical Point?)

**Center for Extreme Magnetic Field Science**

Processing in high fields and gradients (access to new phases of “old” materials?)

**Biological Physics**

- Arrest baterical slime growth in high magnetic fields (a new therapy to fight #@*$%!osis?)

*aka “Magnetolomics”*

NOT found via Google

02 December 2013
Come to Group Meetings in Spring 2014… enjoy **Safety Training**, science discussions, manipulation of cryogenic fluid, … and then… Ready for Summer 2014!

**UF NPB B133-135**

**NHMFL @ UF, FSU, LANL**

**SNS and HFIR @ ORNL**

Date: 1564
Title: Floridae
Cartographer:
Jacques Le Moyne de Morgues

http://scholar.library.miami.edu/floridamaps/first_spanish_period.php

We are, by our nature, explorers…
Curiosity Driven…
Hypothesis Driven…
Device Inspired…
Fame and Fortune…
(insert your reason here)