Curriculum Vitae for Vincent J. Yannello

Education

University of Wisconsin-Madison Madison, WI GPA 4.00	Physical Chemistry	Ph.D. 2017
The College of William and Mary Williamsburg, VA GPA 3.94	Computer Science – Computational Operations Research	M.S. 2012
The College of William and Mary Williamsburg, VA GPA 3.88 Summa Cum Laude, With Honors in Chemistry	Chemistry, Mathematics	B.S. 2011

Publications

Tener, Z.P.; **Yannello, V.J.**; Lapidus, S.; Sebastian, S.; Shatruk, M. Evolution of Bonding and Magnetism via Changes in Valence Electron Count in $CuFe_{2-x}Co_xGe_2$. *Inorg. Chem.* Submitted.

Pak, C.; Garlea, V.; **Yannello, V.J.**; Cao, H.; Bangura, A.; Shatruk, M. $Na_2Mn_3Se_4$: Strongly Frustrated Antiferromagnet with Complex Magnetic Structure. *Inorg. Chem.* Submitted.

Yannello, V.J.; Guillou, F.; Yaroslavtsev, A.A.; Tener, Z.P.; Wilhelm, F.; Yaresko, A.N.; Molodtsov, S.L.; Scherz, A.; Rogalev, A.; Shatruk, M. Revisiting Bond Breaking and Making in $EuCo_2P_2$: Where are the Electrons? *Chem. Eur. J.* Accepted

Mann, D.K.; Xu, J.; Mordvinova, N.E.; **Yannello, V.J.**; Sousa, J.P.S.; Lebedev, O.I.; Kolenko, Y.V.; Shatruk, M. Electrocatalytic Water Oxidation over $AlFe_2B_2$ Promoted by Partial Etching of Al and *In Situ* Generation of Iron Oxide Nanoclusters. *Chem. Sci.*, **2019**, *10*, 2796-2804.

Sousa, V.; Gonçalves, B.; Franco, M.; Ziouani, Y.; Fátima Cerqueira, M.; Rosen, Y.S.; **Yannello, V.J.**; Magdassi, S.; Kovnir, K.; Lebedev, O.I.; Kolen'ko, Y.V. Superstructural Ordering in Hexagonal $CuInSe_2$ Nanoparticles. *Chem. Mater.* **2019,** *31*, 260-267.

Peterson, G.G.; **Yannello, V.J.**; Fredrickson, D.C. Inducing Complexity in Intermetallics through Electron-Hole Matching: The Structure of $Fe_{14}Pd_{17}Al_{69}$. *Angew. Chem.* **2017,** *129*, 10279-10284.

Miyazaki, K.; **Yannello, V.J.**; Fredrickson, D.C. Electron-Counting in Intermetallics Made Easy: The 18-*n* Rule and Isolobal Bonds across the Os-Al System.*Z. Kristallogr.* **2017,** *232*, 487-496.

Yannello, V.J.; Fredrickson, D.C. Generality of the 18-*n* Rule: Intermetallic Structural Chemistry Explained through Isolobal Analogies to Transition Metal Complexes. *Inorg. Chem.* **2015**, *54* (23) 11385-11398.

Kilduff, B.J.; **Yannello, V.J.**; Fredrickson, D.C. Defusing Complexity in Intermetallics: How Covalently Shared Electron Pairs Stabilize the FCC Variant $Mo_2Co_xGa_{6-x}$ ($x \approx 0.9$). *Inorg. Chem.* **2015**, *54* (16) 8103-8110.

Yannello, V.J.; Fredrickson, D.C. Orbital Origins of Helices and Magic Electron Counts in the Nowotny Chimney Ladders: The *18 – n* Rule and a Path to Incommensurability. *Inorg. Chem.* **2014**, *53* (19) 10627-10631.

Hadler, A.B.; **Yannello, V.J.**; Bi, W.; Alp, E.E.; Fredrickson, D.C. Pi-Conjugation in $Gd_{13}Fe_{10}C_{13}$ and Its Oxycarbide: Unexpected Connections between Complex Carbides and Simple Organic Molecules. *J. Am. Chem. Soc.* **2014**, *136* (34) 12073-12084.

Yannello, V.J.; Kilduff, B.J.; Fredrickson, D.C. Isolobal Analogies in Intermetallics: The Reverse Approximation MO Approach and Applications to $CrGa_4$- and Ir_3Ge_7-type Phases. *Inorg. Chem.* **2014,** *53* (5) 2730-2741.

Cui, J.; Forstall, V.; Li, C.-K.; **Yannello, V.** Properties and preservers of the pseudospectrum. *Linear Algebra Appl.* **2012**, *436* (2) 316-325.

Forstall, V.; Herman, A.; Li, C.-K.; Sze, N-.S.; **Yannello, V.** Preservers of eigenvalue inclusion sets of matrix products. *Linear Algebra Appl.* **2011**, *434* (1) 285-293.

Presentations

Yannello, V.J.; Tener, Z., Shatruk, M. Electronic Redistribution in the $ThCr_2Si_2$-type $EuCo_2P_2$ Under Pressure. Poster Presented at the Solid State Gordon Research Conference, New London, NH, July 2018.

Yannello, V.J.; Fredrickson, D.C. Electron Counting in Intermetallics: Explaining the Nowotny Chimney Ladders using the 18 – *n* Rule. Poster Presented at the North America Solid State Chemistry Conference, Tallahassee, FL, May 2015.

Yannello, V. Using APPL to Evaluate Small-Sample Goodness-of-Fit Tests. Presentation Presented at the SIAM Conference on Uncertainty Quantification, Raleigh, NC, April 2012.

Yannello, V. Maps Preserving the Pseudo Spectrum. Presentation Presented at Applied Linear Algebra – in honor of Hans Schneider, Novi Sad, Serbia, May, 2010.

Awards & Honors

University of Wisconsin Outstanding TA Award	2016
Hirschfelder Graduate Student Award	2016
Graduate Student Faculty Liaison Committee (GSFLC) Travel Grant	2015
Hirschfelder Prize Graduate Fellowship	2012
The Cissy Patterson Prize in Mathematics	2011
William George Guy Prize in Chemistry	2011
Phi Beta Kappa	2010
James Monroe Scholar	2007

Leadership and Mentorship Experience

Teaching Assitant Training Committee

- Organized and participated in the Practice Discussion Sessions, which 2014 - 2016

allowed new TA's a chance to practice holding a discussion section while providing feedback from the experienced TAs.

Graduate Teaching Assistant

- Course: General Chemistry I (103), General Chemistry II (104), Advanced General Chemistry (109), Physical Chemistry II (562) — 2012 - 2016
- Prepared lesson materials and led discussion of 15-30 students reviewing course material.
- Supervised, assisted, and evaluated students during practical lab excersices.
- Gave two course lectures (~100 students) in professor's absence.

Teaching Post-Doctoral Scholar

- Course: General Chemistry I (1045) — 2018 - 2019
- Prepared lesson materials, quizzes, and exams for a lecture course of ~230 students