

## TOM OTIENO

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### ADMINISTRATIVE EXPERIENCE

- **Associate Dean for Administrative Affairs and Research**, College of Arts and Sciences, Eastern Kentucky University, Richmond. 7/2005-present

Responsible for various College activities related to the administration of the College and to faculty and staff personnel and policy issues. Assists with faculty appointments, chairperson appointments and other administrative or personnel special projects and activities as assigned by the Dean. Promotes and supports the research mission of the College, including assisting faculty members in their pursuit of external funding for scholarship and service activities, and fostering interdisciplinary research. Has also represented the College at university-level student recruitment activities and served as editor of the College newsletter.

- **Interim Department Chair**, Department of Physics & Astronomy, Eastern Kentucky University, Richmond. 5/2008-6/2008

Responsible for administration of the department including budget development and management, faculty hiring, faculty and staff supervision, and oversight of summer courses and student advising/orientation sessions.

- **Assistant Dean for Administrative Affairs and Research**, College of Arts and Sciences, Eastern Kentucky University, Richmond. 1/2004-6/2005

Responsible for various College activities related to the administration of the College, faculty and staff personnel and policy issues, and scholarly activities. Represented the College at university-level student recruitment activities and served as editor of the College newsletter.

- **Project Director/PI**, Eastern Kentucky University's GK-12 project (ISMAM), 1/03-6/06.

The project was funded by a \$1.5 million grant from the National Science Foundation and involved working with selected middle schools to improve the teaching of science and mathematics. Oversaw the overall implementation of the project. Specifically: set up and managed the project office, prepared and oversaw the budget, recruited and supervised personnel (51 total), organized and chaired grant-wide planning meetings, participated in training workshops, served as a faculty participant/mentor, interacted with internal and external project evaluators, interacted with NSF (including attending annual meetings of NSF GK-12 project teams [2004, 2005, 2006], submission of proposals for supplemental awards [2003,2004, 2005], and preparation and submission of annual and final report), collected and submitted program monitoring data to Quantum Research Corporation (QRC), promoted the project to internal and external constituencies (including presenting at conferences).

- **Administrative Intern**, Office of the Dean, College of Arts and Sciences Eastern Kentucky University, Richmond, 8/02-5/03.

Participated in college-level recruitment efforts on and off-campus, oversaw the development of the first college brochure, edited and produced the college newsletter, accompanied the college Dean and Associate Dean to meetings.

- **Coordinator of Graduate Program**, Department of Chemistry, Eastern Kentucky University, Richmond 9/97-8/02

Reviewed and processed all departmental graduate student applications, oversaw the graduate program curriculum including scheduling of courses, revision of existing courses and introduction of new ones, streamlined advising for both enrolled and prospective graduate students, stepped up recruitment and retention efforts for the M.S. program, developed and maintained the Department of Chemistry's graduate studies website, chaired the graduate committee, made laboratory-teaching assignments to faculty, part time instructors and graduate assistants. Played the leading role in the chemistry graduate program review mandated by the Council on Postsecondary Education.

## ACADEMIC EXPERIENCE

- **Professor**, Eastern Kentucky University, Richmond. 2003-present
- **Associate Professor**, Eastern Kentucky University, Richmond. 1998-2003 (**Tenured, 2000**)
- **Visiting Research Faculty**, University of Kentucky, Lexington (Summers 1999, 2000, 2001 and 2002)
- **Assistant Professor**, Eastern Kentucky University, Richmond. 1995-98
- **Postdoctoral Research Associate**, Southwest Texas State University, San Marcos. 1993-95
- **Research and Teaching Assistant**, University of British Columbia, Vancouver. 1986-93

## EDUCATION

- **Ph.D.**, University of British Columbia, Vancouver, 1993
- **M.Sc.**, University of British Columbia, Vancouver, 1989
- **B.Sc.** (1<sup>st</sup> Class Hons.), University of Nairobi, Nairobi, 1986

## ACADEMIC LEADERSHIP AND PLANNING TRAINING

- **Stepping Up to the Deanship: A Hands-On Skills Assessment and CV Workshop**. Post-Conference Workshop, *Council of Colleges of Arts and Sciences*, Chicago, Illinois, November 10, 2007
- **Management Development Program (Certificate)**, Harvard University Graduate School of Education, Cambridge, Massachusetts, June 16-28, 2007
- **2005 CCAS Deans' Seminar on New Structures: Planning, Financing and Building New Facilities for the Arts and Sciences**, *Council of Colleges of Arts and Sciences*, Omaha, Nebraska, March 17-18, 2005

## **AWARDS**

- Distinguished College/University Scientist Award (2002); Kentucky Academy of Science.
- Research Award (2000); College of Arts and Sciences, EKU.

## **PROFESSIONAL ASSOCIATION AND SELECTED PROFESSIONAL SERVICE**

- Member, Kentucky Statewide EPSCoR Committee (2006 – present)
- Member, Kentucky NSF EPSCoR Sub-Committee (2006 – present)
- Member, Council of Colleges of Arts and Sciences (2005- present); Member of the CCAS Committee on Cultural Diversity (2008-present)
- Member, EKU Social Work Program Advisory Group (2005 – present)
- Member, Kentucky Biomedical Research Infrastructure Network (KBRIN) - IDeA Network for Biomedical Research Excellence (INBRE) Administrative Advisory Committee (2004 – present)
- Member, American Chemical Society (1993-2004; Public Relations Chair: Lexington Section, 1997 - 2002)
- Member, Council on Undergraduate Research (EKU Liaison, 1995 - present)
- Member, Kentucky Academy of Science (Ordinary member since 1998, Life member since 2002)
- Member, Kentucky Science Teachers Association (2004 - 2007)
- Member, National Science Teachers Association (2004 - present)
- Founding Member, Central States Regional Undergraduate X-ray Diffraction Consortium (Since 1999)
- Reviewer, Journal of Chemical Crystallography
- Reviewer, Synthesis and Reactivity in Inorganic and Metal-Organic Chemistry Journal
- Reviewer, Research Corporation
- Reviewer, National Science Foundation: Inorganic, Bioinorganic and Organometallic Chemistry Program

## **COMMUNITY OUTREACH**

- My outreach activities have primarily involved giving talks, presenting demonstrations or participating in science career days in local K-12 schools.
- Served as Project Director of EKU's GK-12 program (ISMAM), working with six middle schools in Appalachian Kentucky to improve the teaching of science and mathematics in these schools by infusing the use of inquiry-based instruction and technology into their curriculum (1/03 – 6/06)

## **SELECTED NON INSTRUCTIONAL SERVICE (Eastern Kentucky University)**

### **University Committees and Councils**

- |                |   |
|----------------|---|
| 1/2008-present | Externally Sponsored Projects Workgroup                       |
| 2/2007-3/2007  | Search committee for Associate Director of Sponsored Programs |
| 8/2006-11/2006 | Search committee for Director of Sponsored Programs           |

6/2006-present Grants Policy Group  
 8/2005-4/2006 University Research Council  
 8/2005-8/2007 Honorary Degree Nomination Committee  
 8/2003-5/2004 Search committee for Dean of College of Arts and Sciences  
 12/2000-8/2004 Student Support Subcommittee of the Graduate Council [**Chair**,  
 12/2000-8/2002]  
 9/2000-8/2004 Graduate Council  
 9/1996-8/1999 Library Committee

#### **College of Arts and Sciences Committees**

9/2006-present Strategic Planning & Budget Committee  
 9/2006-present Research & Faculty Development Committee (**Chair**)  
 8/2005-present Promotion and Tenure Committee (**Chair**)  
 8/2005-2/2006 Promotion and Tenure Review Committee, *Ad hoc*  
 7/2005-present New Science Building Planning Committee, *Ad hoc*.  
 9/2004-4/2005 New Science Building Lobbying Committee (**Chair**), *Ad hoc*.  
 9/2004-8/2006 Faculty Development Committee (**Chair**)  
 9/2004-8/2006 Strategic Planning & Budget Work Group  
 9/2004-8/2006 Roark Lecture Selection Committee (**Chair**), *Ad hoc*  
 9/2003-8/2004 Sabbatical Leave Committee  
 2/2004-8/2004 Dean's Award of Merit Committee  
 9/2000-8/2002 Promotion and Tenure Committee

#### **College of Natural and Mathematical Sciences Committees**

9/1995-8/1999 Member, Scholarship Committee

#### **Department of Physics and Astronomy Committees**

3/2008-6/2008 **Chair**, Department Chair Search Committee  
 9/2003-8/2004 Member, Promotion and Tenure Committee

#### **Department of Chemistry Committees**

11/2003-5/2004 **Chair**, Faculty Search Committee (Inorganic Visiting), *Ad hoc*  
 9/2003-12/2003 Member, Executive Committee (elected)  
 9/2003-8/2004 & 9/2000-8/2002 Member, Promotion and Tenure Committee (elected) [**Chair**,  
 9/2000-8/2002]  
 9/2003-8/2004 & 9/2000-8/2002 Member, Sabbatical Leave Committee (elected) [**Chair**, 9/2000-  
 8/2002]  
 9/2003-8/2004 & 9/1998-8/2000 Member, Merit Pay Policy and Appeals Committee (elected)  
 [**Chair**, 9/1999-8/2000]  
 9/1997-8/2004 Member, Graduate Committee [**Chair**, 9/1997-8/2002 & 9/2003-  
 8/2004 ]  
 11/2001-8/2003 Budget and Chair's Advisory Committee  
 12/2001-5/2002 Member, Laboratory Instructors Orientation Committee  
 12/2000-12/2001 Member, CHE105 Resolution Committee, *Ad hoc*.  
 9/2001-11/2001 Member, Forensic Science Budget Request Committee, *Ad hoc*.  
 9/2000-11/2001 Member, Department Chair's Internal Advisory Committee  
 9/1996-8/2000 Member, Planning Committee  
 9/1995-8/2000 Member, Academic Practices Committee (elected)  
 2/2000-5/2000 **Chair**, Faculty Search Committee (Analytical/Forensic), *Ad hoc*.

2/2000-5/2000	<b>Chair</b> , Instructor Evaluation Form Development Committee, <i>Ad hoc</i> .
12/1999-5/2000	Member, CHE 111/112 Lab Advisory Committee, <i>Ad hoc</i> .
12/1999-5/2000	Member, Library Advisory Committee, <i>Ad hoc</i> .
9/1998-9/1999	Member, Internal Advisory Committee
1/1999-5/1999	<b>Chair</b> , Department Chair Search Committee (elected, <i>ad hoc</i> )
1/1999-5/1999	Member, CHE 101/105 Laboratory Advisory Committee
1/1998-4/1998	Member, CHE 101/105 Combination Advisory Committee, <i>Ad hoc</i> .
2/1997-4/1997	Member, CHE 101/105 Objectives Committee, <i>Ad hoc</i> .
1/1996-5/1996	Member, Committee on Evaluation of Teaching (in addition to IDEA), <i>Ad hoc</i> .

### **COURSES TAUGHT (Eastern Kentucky University)**

CHE 105	Chemistry for the Health Sciences I
CHE 111	Introductory Chemistry I
CHE 112	Introductory Chemistry II
CHE 495	Introduction to Research. Supervised research of 17 undergraduate students
CHE 501	Chemtopics: Introduction to Bioinorganic Chemistry
CHE 515/715	Analysis and Characterization
CHE 550/750	Inorganic Chemistry
CHE 805	Selected Topics in Inorganic Chemistry: Bioinorganic Chemistry
CHE 850	Advanced Inorganic Chemistry

### **ACADEMIC STUDENT ADVISING**

- Graduate Students Advisor**, Department of Chemistry, 9/97-8/02 & 9/2003-8/2004

### **ADVISOR, MASTERS THESES**

- Kamruz MD Zaman. Synthesis and Characterization of Some Vanadium(IV) Complexes, 2003.

### **ADVISOR, MASTERS NON-THESES**

- Harpreet K. Dhooper. A Review of Chemistry of Copper(I)-Pyrazine Coordination Polymers, 2005.
- Betty K. Ikunyua. Coordination Polymers of Copper(I): Factors Affecting Structural Dimensionality, 2002.

### **RESEARCH STUDENTS' AWARDS:**

- J. L. Barnett, 1<sup>st</sup> place, Graduate Research Poster Competition, the EKU Sigma Xi Chapter, 2005.
- J. L. Barnett, 1<sup>st</sup> place, graduate chemistry (oral), Kentucky Academy of Science, 2004.
- J. Page, Excellence in Undergraduate Research Award, the EKU Sigma Xi Chapter. 2003.
- Z. L. Dismukes, 1<sup>st</sup> place, undergraduate chemistry (oral), Kentucky Academy of Science, 2002.

- A. I. McMullin, 1<sup>st</sup> place, undergraduate chemistry (oral), Kentucky Academy of Science, 2001.
- Ann M. Gipson, 2<sup>nd</sup> place, undergraduate chemistry (oral), Kentucky Academy of Science, 2000.
- M. Hatfield, 1<sup>st</sup> place, undergraduate chemistry (oral), Kentucky Academy of Science, 1999.
- J. R. Blanton, 2<sup>nd</sup> place, Regional Undergraduate Chemistry Research Poster Competition, University of Kentucky, 1998.

### RESEARCH INTERESTS

- Inorganic Chemistry. Synthesis, structure and properties of coordination compounds.
- Science Education.

### PUBLICATIONS (§ = undergraduate student co-authors)

- Susan Godbey, Tom Otieno, and Daniel Tofan. Open laboratories in college science. In *Handbook of College Science Teaching*. Joel J. Mintzes and William H. Leonard, Eds.; NSTA Press: Arlington, VA **2006**, Chapter 9, pp. 87-95.
- Tom Otieno, Jaime R. Blanton<sup>§</sup>, Kena J. Lanham<sup>§</sup>, and Sean Parkin. Poly- $\mu$ -2,5-dimethylpyrazine- $\mu$ -dithiocyanato-*N,S,S*-dicopper(I): a three-dimensional coordination polymer containing both molecular and anionic rod ligands. *J. Chem. Crystallogr.* **2003**, 33(5-6), 335.
- Tom Otieno, Aaron Hutchison, Matthew K. Krepps and David A. Atwood. Synthesis, spectral and thermal properties of pyrazine-bridged coordination polymers of copper(II) nitrate. *J. Chem. Educ.* **2002**, 79, 1355-1357.
- Tom Otieno, Andrea T. Pinkston<sup>§</sup>, Natisha C. Johnson<sup>§</sup> and Sean Parkin. Aquatetrakis(2-methylpyrazine- $\kappa N$ )(nitrate- $\kappa O$ )copper(II) nitrate. *Acta Cryst.* **2002**, E58, m328.
- Tom Otieno, Ann M. Gipson<sup>§</sup> and Sean Parkin. Synthesis and X-ray characterization of a polymeric 1:3 complex of copper(II) nitrate with pyrazine. *J. Chem. Crystallogr.* **2002**, 32(3-4), 81.
- Tom Otieno, Jaime R. Blanton<sup>§</sup>, Michael J. Hatfield<sup>§</sup>, Sherry L. Asher<sup>§</sup> and Sean Parkin. A copper(II)-pyrazole complex cation with  $\bar{3}$  imposed symmetry. *Acta Cryst.* **2002**, C58, m182.
- Tom Otieno, Michael J. Hatfield<sup>§</sup>, Sherry L. Asher<sup>§</sup>, Angela I. McMullin<sup>§</sup>, Brian O. Patrick, and Sean Parkin. Structures of pentakis(imidazole)copper(II) hexafluoroarsenate monohydrate and chlorotetrakis(imidazole)copper(II) chloride. *Synth. React. Inorg. Metal-Org. Chem.* **2001**, 31(9), 1587.
- Jaime R. Bailey<sup>§</sup>, M. Jason Hatfield<sup>§</sup>, Kevin R. Henke, Matthew K. Krepps, Jessica L. Morris<sup>§</sup>, Tom Otieno, Karen D. Simonetti<sup>§</sup>, Eric A. Wall, David A. Atwood. Transition metal complexes of 2,4,6-trimercapto-1,3,5-triazine (TMT): potential precursors to nanoparticulate metal sulfides, *J. Organomet. Chem.* **2001**, 623 (1-2), 185.
- Norman S. Dean, Ladd M. Mokry<sup>§</sup>, Marcus R. Bond, Madan Mohan, Tom Otieno, Charles J. O'Connor, K. Spartalian and Carl J. Carrano. Vanadium

- hydrotris(pyrazolyl)borate complexes of diphenyl phosphate. Heterometallic complexes of the  $[LV\{PhO\}_2PO_2]_3$  fragment. *Inorg. Chem.* **1997**, *36*, 1424.
- Tom Otieno, Ladd M. Mokry<sup>§</sup>, Marcus R. Bond, Carl J. Carrano and Norman S. Dean. Non-template-centered, closed tetravanadium phosphate and phosphonate clusters. *Inorg. Chem.* **1996**, *35*, 850.
  - Tom Otieno, Marcus R. Bond, Ladd M. Mokry<sup>§</sup>, Ronald B. Walter and Carl J. Carrano. Plasmid DNA cleavage by oxo bridged V(III) dimers without added co-oxidants or reductants. *Chem. Commun.* **1996**, 37.
  - Tom Otieno and Robert C. Thompson. Antiferromagnetism and metamagnetism in 1,4-diazine and pyridine complexes of nickel(II). *Can. J. Chem.* **1995**, *73*, 275.
  - Marcus R. Bond<sup>§</sup>, Ladd M. Mokry<sup>§</sup>, Tom Otieno, Jeffrey Thompson<sup>§</sup> and Carl J. Carrano. Three new polynuclear, bis( $\mu$ -phosphato) vanadyl clusters:  $[HB(pz)_3VO(\mu-(C_6H_5O)_2PO_2)]_2$ ,  $[HB(3,5-Me_2pz)_3VO(\mu-(C_6H_5O)_2PO_2)]_2 \cdot C_7H_8$ , and  $H_2O \cdot [t-Bupz(\mu-C_6H_5OPO_3)VO]_6(H_2O)_2 \cdot 2CH_3CH_2OH$ . Adaptability of the cyclic (OV)(OPO)<sub>2</sub>(VO) bridging unit. *Inorg. Chem.* **1995**, *34*, 1894.
  - Tom Otieno, Steven J. Rettig, Robert C. Thompson and James Trotter. Pyridazine complexes of copper(II) nitrate: synthesis and structural and magnetic studies. *Inorg. Chem.* **1995**, *34*, 1718.
  - Madan Mohan, Marcus R. Bond, Tom Otieno and Carl J. Carrano. Oxovanadium pyrazole complexes: synthesis and structure. *Inorg. Chem.* **1995**, *34*, 1233.
  - Ladd M. Mokry<sup>§</sup>, Jeffrey Thompson<sup>§</sup>, Marcus R. Bond, Tom Otieno, Madan Mohan and Carl J. Carrano. Stereochemical control of cluster size in vanadium phosphates. *Inorg. Chem.* **1994**, *33*, 2705.
  - Tom Otieno, Steven J. Rettig, Robert C. Thompson and James Trotter. Structure of (Nitrate-*O*)(nitrate-*O,O'*)tris(pyridazine-*N*)copper(II). *Acta Crystallogr.* **1993**, *C49*, 2067.
  - Tom Otieno, Steven J. Rettig, Robert C. Thompson and James Trotter. Synthesis and structural and magnetic studies of diazine-bridged complexes of copper(II) cyanate. Crystal structure of poly[bis(cyanato-*N*)bis(*m*-methylpyrazine)copper(II)]. *Inorg. Chem.* **1993**, *32*, 4384.
  - Tom Otieno, Steven J. Rettig, Robert C. Thompson and James Trotter. Complex polymeric cations of copper(I) with graphite- and diamond-related lattices: crystal structures of poly-tris( $\mu$ -2,5-dimethylpyrazine)dicopper(I) hexafluorophosphate and poly-bis( $\mu$ -2,5-dimethylpyrazine)copper(I) hexafluorophosphate. *Inorg. Chem.* **1993**, *32*, 1607.
  - Tom Otieno, Steven J. Rettig, Robert C. Thompson and James Trotter. Pyrazine and 2,5-dimethylpyrazine complexes of copper(I) trifluoromethanesulfonate. The crystal and molecular structure of poly- $\mu$ -2,5-dimethylpyrazine(2,5-dimethylpyrazine)(trifluoromethanesulfonato-*O*)copper(I). *Can. J. Chem.* **1990**, *68*, 1901.
  - T. Otieno, S. J. Rettig, R. C. Thompson and J. Trotter. Synthesis, structure and vibrational spectrum of poly- $\mu$ -pyrazine(pyrazine)(trifluoromethanesulfonato-

O)copper(I). *Can J. Chem.* **1989**, 67, 1964.

**ORAL CONFERENCE PRESENTATIONS** (§ = undergraduate students)

- Efficiency in promotion and tenure evaluations through online reviews. Tom Otieno, Joan M. Foster, F. Andrew Schoolmaster, and Gary D. Stark. *Annual meeting of the Council of Colleges of Arts and Sciences*. Boston, Massachusetts, November 2006, Session #E.
- Bounce that ball. Megan Alexander<sup>§</sup>, Becky Smith, and Tom Otieno, *34<sup>th</sup> Annual Conference of the Kentucky Science Teachers Association*, Lexington, Kentucky, November 2006, Session #47.
- Photosynthesis in a Jar. Jennifer Fairchild<sup>§</sup>, Tracy Powell-McCoy, and Tom Otieno, *33<sup>rd</sup> Annual Conference of the Kentucky Science Teachers Association*, Lexington, Kentucky, November 2005, Session #46.
- Increasing middle school inquiry through collaboration. Melinda Wilder, Tom Otieno and Jessica Lynn Barnett, *National Science Teachers Association 53<sup>rd</sup> National Convention*, Dallas, Texas, March/April 2005.
- Inquiry based science and math in Appalachian middle schools. Jessica L. Barnett, Tom Otieno, and Melinda Wilder, *32<sup>nd</sup> Annual Conference of Kentucky Science Teachers Association*, Lexington, Kentucky, November 2004, Session # 105.
- Synthesis and characterization of diazole complexes of copper(II) thiocyanate. Jessica L. Barnett and Tom Otieno. *90<sup>th</sup> Annual Meeting of the Kentucky Academy of Science*, Murray, Kentucky, November 2004.
- Incorporating technology into a water quality testing experiment. Tracy L. Powell-McCoy, Jennifer L. Fairchild<sup>§</sup>, and Tom Otieno, *90<sup>th</sup> Annual Meeting of the Kentucky Academy of Science*, Murray, Kentucky, November 2004.
- Partnerships between university science and mathematics faculty, students and middle school teachers: The Eastern Kentucky University model. Tom Otieno, *90<sup>th</sup> Annual Meeting of the Kentucky Academy of Science*, Murray, Kentucky, November 2004.
- Cationic complexes of copper(II) with pyrazole and pyrazine. Jon Walker<sup>§</sup> and Tom, Otieno, *89<sup>th</sup> Annual Meeting of the Kentucky Academy of Science*, Bowling Green, Kentucky, November 2003.
- A three-dimensional coordination polymer containing both molecular and anionic rod ligands. Kena J. Lanham<sup>§</sup> and Tom Otieno, *88<sup>th</sup> Annual Meeting of the Kentucky Academy of Science*, Highland Heights, Kentucky, November 2002.
- Reactions of [3,3'-bis(2-hydroxybenzylidenimine)]-1,2-diphenoxyethane and [3,3'-bis(2-hydroxy-3-methoxybenzylidenimine)]-1,2-diphenoxyethane with divalent copper, cobalt and nickel acetates. Zachary L. Dismukes<sup>§</sup>, Tom Otieno and David A. Atwood, *88<sup>th</sup> Annual Meeting of the Kentucky Academy of Science*, Highland Heights, Kentucky, November 2002.
- Structure of chlorotetrakis(imidazole)copper(II) chloride and its synthesis by chloride atom abstraction from carbon tetrachloride. Angela I. McMullin<sup>§</sup> and Tom Otieno. *Kentucky Academy of Science (87<sup>th</sup>) / Tennessee Kentucky Academy of Science(111<sup>th</sup>) Joint Annual Meeting*, Murfreesboro, Tennessee, November 2001.

- New schiff base ligands for bimetallic transition metal complexes. Jessica L. Morris<sup>§</sup>, Tom Otieno and David A. Atwood, *Kentucky Academy of Science (87<sup>th</sup>) / Tennessee Kentucky Academy of Science(111<sup>th</sup>) Joint Annual Meeting*, Murfreesboro, Tennessee, November 2001.
- Preparation and characterization of 2,4,6-trimercapto-1,3,5-triazine complexes of divalent copper. Karen D. Simonetti<sup>§</sup>, Tom Otieno and David A. Atwood, *33<sup>rd</sup> Annual Southeastern Regional Student Affiliate of the American Chemical Society Undergraduate Research Conference*, Statesboro, Georgia, April 2001, Abstract 7.
- Synthesis and characterization of cobalt(II) complexes of 2,4,6-trimercapto-1,3,5-triazine. Jessica L. Morris<sup>§</sup>, Tom Otieno and David A. Atwood, *33<sup>rd</sup> Annual Southeastern Regional Student Affiliate of the American Chemical Society Undergraduate Research Conference*, Statesboro, Georgia, April 2001, Abstract 6.
- Synthesis and characterization of a pyrazine-bridged coordination polymer of copper(II) nitrate. Ann M. Gipson<sup>§</sup> and Tom Otieno. *86<sup>th</sup> Annual Meeting of the Kentucky Academy of Science*, Lexington, Kentucky, Nov-Dec. 2000.
- Synthesis and characterization of copper complexes of 2,4,6-trimercaptotriazine. Jaime R. Bailey<sup>§</sup> and Tom Otieno, *32<sup>nd</sup> Annual Southeastern Regional Student Affiliate of the American Chemical Society Undergraduate Research Conference*, Richmond, Kentucky, April 2000, Abstract O6.
- Synthesis and crystal structure of pentakis(imidazole)copper(II) hexafluoroarsenate monohydrate. Sherry L. Asher<sup>§</sup>, M. Jason Hatfield<sup>§</sup>, and Tom Otieno, *85<sup>th</sup> Annual Meeting of the Kentucky Academy of Science*, Richmond, Kentucky, November 1999.
- Diaquadihydroxodithiocyanato-*N*-vanadium(IV). Tom Otieno, *51<sup>st</sup> Southeastern Regional Meeting of the American Chemical Society*, Knoxville, Tennessee, October 1999, Abstract 307.
- Hexakis(pyrazole)copper(II) complexes. Jaime R. Blanton<sup>§</sup>, Sherry L. Asher<sup>§</sup>, Michael J. Hatfield<sup>§</sup>, and Tom Otieno, *31<sup>st</sup> Annual Southeastern Regional Student Affiliate of the American Chemical Society Undergraduate Research Conference*, Cullowhee, North Carolina, April 1999, Abstract 1.
- Synthesis and characterization of coordination polymers of copper(I) thiocyanate. Jaime R. Blanton<sup>§</sup> and Tom Otieno, *30<sup>th</sup> Annual Southeast Regional Student Affiliates of the American Chemical Society Undergraduate Research Conference*, Kennesaw, Georgia, March 1998, Abstract 7.
- Synthesis and characterization of vanadium(IV) thiocyanate complexes. Wendell B. Lake<sup>§</sup> and Tom Otieno, *29<sup>th</sup> Annual Southeast Regional Student Affiliates of the American Chemical Society Undergraduate Research Conference*, Johnson City, Tennessee, March 1997, Abstract 18.
- Diazine complexes of copper(II) hexafluorophosphate and hexafluoroarsenate. Tom Otieno and Robert C. Thompson, *48<sup>th</sup> American Chemical Society Southeast Regional Meeting*, Greenville, South Carolina, November 1996, Abstract 231.
- Consideration of bridging geometries in rational synthesis of oxovanadium phosphates. Marcus R. Bond and Tom Otieno, *The XVII Congress and General Assembly of the International Union of Crystallography*, Seattle, Washington, August 1996, Abstract

E1222.

- Synthesis and characterization of vanadium pyrazole complexes. Tom Otieno, Madan Mohan, Marcus R. Bond and Carl J. Carrano, *50th American Chemical Society Southwest Regional Meeting*, Forth Worth, Texas, November 1994, Abstract 83.
- Effects of 1,4-diazine bridging on the magnetic properties of coordination polymers of nickel(II). T. Otieno, L. Mao and R.C. Thompson, *77th Canadian Society for Chemistry Conference and Exhibition*, Winnipeg, Manitoba, June 1994, Abstract 441.
- Synthesis and structures of 2,5-dimethylpyrazine-bridged cationic polymers of copper(I). T. Otieno, S.J. Rettig, R.C. Thompson and J. Trotter, *76th Canadian Society for Chemistry Conference and Exhibition*, Sherbrooke, Quebec, May 1993, Abstract 140.
- Magnetic exchange effects in polynuclear pyridazine-bridged complexes of copper(II) and nickel(II). T. Otieno and R.C. Thompson, *76th Canadian Society for Chemistry Conference and Exhibition*, Sherbrooke, Québec, May 1993, Abstract 333.

**POSTER PRESENTATIONS** (§ = undergraduate students)

- The role of university professors in scientist-teacher partnerships under the GK-12 program. Tom Otieno. *National Science Foundation West Coast GK-12 Meeting*, Anaheim, California, April 2006.
- The impact of the GK-12 program on participating Eastern Kentucky University students. Tom Otieno, Megan Alexander<sup>§</sup>, Sherry Harrel, Karen W. Carey, and Lois Webster. *Annual meeting for National Science Foundation GK-12 Project Teams*, Washington, DC, March 2006.
- Enhancing inquiry-based science and math in Appalachian middle schools: The role of university students. Tom Otieno, Sherry Harrel, J. Kenneth Mattingly, and Karen W. Carey. *Annual meeting for National Science Foundation GK-12 Project Teams*, Arlington, Virginia, March 2005.
- Enhancing inquiry-based science and math in Appalachian middle schools (ISMAM). Jessica L. Barnett, James K. Mattingly, Karen W. Carey and Tom Otieno. *Annual meeting for National Science Foundation GK-12 Project Teams*, Arlington, Virginia, March 2004.
- Enhancing science instruction in middle schools: A collaboration between Eastern Kentucky University and Madison Middle School. Matthew Thompson<sup>§</sup>, Tom Otieno, and Margaret M. Soto. *3<sup>rd</sup> Annual Eastern Kentucky University Undergraduate Presentation Showcase*, Richmond, Kentucky, April 2004, Abstract 39.
- Tetrakis(pyrazole)dithiocyanato-*N*-copper(II): synthesis and characterization. Tiffani Sampson<sup>§</sup> and Tom Otieno. *3<sup>rd</sup> Annual Eastern Kentucky University Undergraduate Presentation Showcase*, Richmond, Kentucky, April 2004, Abstract 38.
- Synthesis and structure of tetrakis(3,5-dimethylpyrazole)copper(II) perchlorate monohydrate. Jon Walker<sup>§</sup> and Tom Otieno. *3<sup>rd</sup> Annual Eastern Kentucky University Undergraduate Presentation Showcase*, Richmond, Kentucky, April 2004, Abstract 37.
- Enhancing science instruction in middle schools: A collaboration between Eastern Kentucky University and Madison Middle School. Matthew Thompson<sup>§</sup>, Tom Otieno,

- and Margaret M. Soto, *89<sup>th</sup> Annual Meeting of the Kentucky Academy of Science*, Bowling Green, Kentucky, November 2003.
- Transition metal complexes of 2,4,6-trimercapto-1,3,5-triazine (TMT). Tom Otieno, *9<sup>th</sup> Annual Kentucky EPSCoR Conference*, Lexington, Kentucky, May 2003, Abstract 42.
  - Two new coordination polymers of copper and 2,5-dimethylpyrazine. Juddson Page<sup>§</sup> and Tom Otieno, *2<sup>nd</sup> Annual Natural Sciences Graduate and Undergraduate Research Poster Day (Hosted by EKU's department of Biological Sciences)*, Richmond, Kentucky, May 2003, Abstract 18.
  - Synthesis and spectral and thermal properties of pyrazine-bridged coordination polymers of copper(II) nitrate: An experiment for advanced undergraduates. Tom Otieno, Matthew K. Krepps, Aaron R Hutchison and David Atwood, *225<sup>th</sup> American Chemical Society National Meeting*, New Orleans, Louisiana, March 2003, Abstract CHED132.
  - Preparation and characterization of aquaioxobis(pyrazole)dithiocyanato-*N*-Vanadium(IV) and related complexes. Kamruz M. Zaman and Tom Otieno, *88<sup>th</sup> Annual Meeting of the Kentucky Academy of Science*, Highland Heights, Kentucky, November 2002.
  - Cationic imidazole-copper(II) compounds: A demonstration of the rewards of faculty-student collaborations. Tom Otieno and Angela I. McMullin<sup>§</sup>, *1<sup>st</sup> Annual Eastern Kentucky University Showcase for Undergraduate Scholarly and Creative Activities*, April 2002, Abstract 17.
  - [3,3'-Bis(2-hydroxybenzylidenimine)]-1,2-diphenoxyethane and [3,3'-Bis(2-hydroxy-3-methoxybenzylidenimine)]-1,2-diphenoxyethane. Andrea T. Pinkston<sup>§</sup>, Tom Otieno and David A. Atwood, *34<sup>th</sup> Annual Southeastern Regional Student Affiliate of the American Chemical Society Undergraduate Research Conference*, Johnson City, Tennessee, April 2002, Abstract 5.
  - Cationic imidazole-copper(II) compounds: A demonstration of the rewards of faculty-student collaborations. Tom Otieno and Angela I. McMullin<sup>§</sup>, *A Celebration of EKU Excellence in Scholarly and Creative Work; a poster session organized as part of President Joanne Glasser's inaugural activities*, Richmond, Kentucky, March 2002.
  - Synthesis and characterization of coordination polymers of copper(I) thiocyanate. Jaime R. Blanton<sup>§</sup> and Tom Otieno, *Regional Undergraduate Chemistry Research Poster Competition*, Lexington, Kentucky, April 1998, Abstract 3.
  - Control of pseudohalide bonding modes in vanadium complexes. Tom Otieno, *Sixth National Conference of the Council on Undergraduate Research*, Durham, North Carolina, June 1996, p. 23.
  - Magnetic properties of pyrazine-bridged coordination polymers of copper(II) sulfonates. Tom Otieno and Robert C. Thompson, *50th American Chemical Society Southwest Regional Meeting*, Fort Worth, Texas, November 1994, Abstract 101.
  - Synthesis and characterization of polymeric pyrazine and pyridazine complexes of copper(II) and nickel(II) cyanates. T. Otieno and R.C. Thompson, *74th Canadian Chemical Conference and Exhibition*, Hamilton, Ontario, June 1991, Abstract 536 NM-D1.
  - Structure and vibrational spectrum of a pyrazine-bridged chain complex of copper(I), poly-

$\text{Cu}(\mu\text{-pyz})(\text{pyz})(\text{CF}_3\text{SO}_3)$ . T. Otieno, S.J. Rettig and R.C. Thompson, *72nd Canadian Chemical Conference and Exhibition*, Victoria, British Columbia, June 1989, Abstract 300 IN-D4P.

### **INVITED TALKS AT COLLEGES AND UNIVERSITIES**

- Principles of inorganic materials synthesis and characterization. Department of Chemistry (Chemistry Club), Eastern Kentucky University, Richmond, Kentucky, March 7, 2006.
- Inorganic materials synthesis at EKU: from small molecules to polymeric materials. Department of Chemistry (Chemistry Club), Eastern Kentucky University, Richmond, Kentucky, September 18, 2002.
- Synthesis and characterization of diazole complexes containing cationic copper(II) chromophores. Department of Chemistry and Geology, Campbellsville University, Campbellsville, Kentucky, October 26, 2001.
- Synthesis and characterization of diazole complexes containing cationic copper(II) chromophores. Department of Chemistry, Western Kentucky University, Bowling Green, Kentucky, February 23, 2001.
- Synthesis and characterization of mononuclear copper(II) and vanadium(IV) pyrazole complexes. Department of Chemistry, University of Kentucky, Lexington, Kentucky, April 2, 1999.
- Synthesis and characterization of copper(I) and vanadium(IV) thiocyanate complexes. Department of Chemistry, Berea College, Berea, Kentucky, February 26, 1998.

### **FUNDED PROPOSALS/GRANTS**

- Enhancing Inquiry-Based Science and Math in Appalachian Middle Schools: Supplemental Award. *PI*: Tom Otieno. National Science Foundation, \$34,000. Funded, August 2005 – June 2006.
- Enhancing Inquiry-Based Science and Math in Appalachian Middle Schools: Supplemental Award. *PI*: Tom Otieno. National Science Foundation, \$68,000. Funded, June 2004 – June 2005.
- Enhancing Inquiry-Based Science and Math in Appalachian Middle Schools: Supplemental Award. *PI*: Tom Otieno. National Science Foundation, \$48,000. Funded, June 2003 – June 2004.
- SMARTer Kids Grant for NEC VT660 projector. Tom Otieno. SMARTer Kids Foundation, \$796. Funded, February 2003 (Grant number: #NEC-UF2032)
- Enhancing Inquiry-Based Science and Math in Appalachian Middle Schools. *PI*: Tom Otieno. *Co-PIs*: Melinda S. Wilder, Brandon Hargis, Jerry D. Cook, William W. Farrar, Malcolm P. Frisbie, Kirk E. Jones and Chongkye Rhee. National Science Foundation, \$1,341,668. Funded, January 2003 – December 2005.
- Diazole and diazine complexes of copper(II) incorporating weakly coordinating anions. Tom Otieno. Kentucky NSF EPSCoR REG program, \$24, 988. Funded, May 2002 - May 2004.
- Synthesis and Applications of new metal chelate ligands. David A. Atwood and Tom

Otieno. Kentucky NSF EPSCoR (Summer Research Program) \$12 562. Funded, June 5, 2002 – July 31, 2002.

- Bimetallic Transition Metal Catalysts. David A. Atwood and Tom Otieno. Kentucky NSF EPSCoR (Summer Research Program), \$15 200. Funded, May 14, 2001 - August 2, 2001.
- Sacrificial Sulfur Ligands in the Formation of Nanoparticulate Sulfide Materials. David A. Atwood and Tom Otieno. Kentucky NSF EPSCoR (Summer Research Program), \$14 880. Funded, May 18, 2000 - July 27, 2000.
- The Preparation and Characterization of Hexakis(azole)copper(II) Complexes. Tom Otieno, ECU University Research Committee, \$1302.00. Funded, March 1999 - March 2001.
- Sulfur Ligands in Heavy Metal Remediation and in the Formation of Nanoparticulate Materials. David A. Atwood and Tom Otieno. Kentucky NSF EPSCoR (Summer Research Program), \$14 891. Funded, May 20, 1999 - July 29, 1999.
- Synthesis and Characterization of New Vanadium Thiocyanate Compounds. Tom Otieno, ECU University Research Committee, \$ 2 655.98. Funded, April 1996 - December 1997.
- Coordination Chemistry of Vanadium Cyanate Compounds. Tom Otieno, Kentucky NSF EPSCoR, \$15 000. Funded May 1996 - June 1997.

**REFERENCES:** Available upon request.