Name: Tuan D. Phan

Position: Associate Professor of Chemistry

Address: 3100 Cleburne Street
Texas Southern University
College of Science, Engineering and Technology
Chemistry Department, 403S TSU Science Building
Houston, TX 77004

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I. RELEVANT EDUCATION

2004 - Doctor of Philosophy, **Chemistry**
University of Houston, TX

II. EMPLOYMENT

- Associate Professor of Chemistry

Texas Southern University
2017 – Current

- Assistant Professor of Chemistry

Texas Southern University
2016

- Director

Thep Viet – Pomina Steel Corporation, Vietnam
2010 - 2015

- Assistant Professor of Chemistry

Texas Southern University, TX
2005 – 2010

- Research Associate

University of Houston, Houston, TX
2005

- Postdoctoral Research Associate

University of Miami, Coral Gables, FL
2004

- Lab Instructor/Research Assistant

University of Houston, Houston, TX
1999 -2004

III. FIELDS OF INTEREST

A. TEACHING
General Chemistry
Organic Chemistry
Inorganic Chemistry
Advanced Inorganic Chemistry
Biological Inorganic Chemistry
Forensic Chemistry
Forensic Toxicology

B. RESEARCH
Chemical Synthesis and Applications: Organic, Inorganic, Bio-Inorganic
Analytical Chemistry: Optimization of Analytical Methods, Electrochemistry
Environmental Toxicology: Organic and Metal Contaminants, Cytotoxicity

IV. GRANTSMANSHIP

External Grant Award
Texas Space Grant Consortium
2009 – 2010 NIP Award Recipients

Seed Grant Award
Texas Southern University
2017-2018

V. AWARDS
- Award of Honor, Third Place Faculty Poster Presentation, Research Week, Texas Southern University, 2019
- Award of Honor, First Place Faculty Oral Presentation, Research Week, Texas Southern University, 2007.
- Graduate Fellowship, University of Houston, 1999 – 2004.
  Upper-Level Teaching Assistant Award, University of Houston, 2001.

VI. PUBLICATIONS
A. In Preparation
Folabi T, Phan T. "Evaluation of Volatile Organic Compounds and Polyaromatic Hydrocarbons in Barker Reservoir in Houston, Texas after the 2017 Hurricane Harvey." in preparation.

B. PEER-REVIEWED JOURNAL ARTICLES
1. Adebowale A, Phan T. "Volatile Organic Compounds in Crude Coconut and Petroleum Oils in Nigeria." *American Journal of Analytical Chemistry* **2017**, 8, 371-379.
2. Adebowale A, Phan T. "Quantitative analysis of toxic halogenated contaminants in Oluyoro stream of Nigeria." *Environ. Dev. Sustain*. **2010**, 12(3), 357-364.
3. Kadish KM, Garcia R, Phan T, Wellhoff J, Caemelbecke EV, Bear JL. "Electrochemical

and Spectroscopic Characterization of a Series of Mixed-Ligand Diruthenium Compounds." *Inorg. Chem*. **2008**. 47, 11423-11428.
4. Nguyen M, Phan T, Caemelbecke EV, Kajonkijya W, Bear JL, Kadish KM. "Interconversion of $Ru_2(L)_4X$ Complexes Where L is 2-Anilinopyridinate or 2-(2,4,6-Trifluoroanilino)pyridinate Anion and X = Cl^- or C· $CC_5H_4N^-$." *Inorg. Chem.* **2008**, *47*, 7775-7783.
5. Nguyen M, Phan T, Caemelbecke EV, Bear JL, Kadish KM. "Synthesis, Structural Determination, Electrochemical and Spectroscopic Properties of (3,1) $Ru_2(F_3ap)_4(NCS)$ and (3,1) $Ru_2(F_3ap)_3(F_2Oap)(NCS)$ where F_3ap is the 2-(2,4,6-Trifluoroanilino)Pyridinate Anion." *Inorg. Chem.* **2008**, *47*, 4392-4400.
6. Sorunmu YE, Nguyen M, Sapp JB, Gorski W, Phan TD, Wei X. "Study of Factors Affecting Molecular Behaviors in Phenothiazine-Mediated Biosensing by Electrochemical and Spectroscopic Methods." *Electroanalysis* **2006**, *18*, 2375-2380.
7. Phan TD, Kinck M, Barker J, Ren T. "Highly Efficient Utilization of Hydrogen Peroxide for Oxygenation of Organic Sulfides catalyzed by $[SiW_{10}O_{34}(H_2O)]^{4-}$." *Tetrahedron Lett*. **2005**, *46*, 397-400
8. Han B, Shao J, Ou Z, Phan TD, Shen J, Bear JL, Kadish KM. "Synthesis and Characterization of Nitrosyl Diruthenium Complexes. Interaction between NO and CO across the Metal-Metal Bond." *Inorg. Chem*. **2004**, *43*, 7741-7751.
9. Kadish KM, Phan TD, Wang LL, Giribabu L, Thuriere A, Wellhoff J, Huang S, Caemelbecke EV, Bear JL. "Synthesis, Structural, Spectroscopic and Electrochemical Characterization of High Oxidation State Diruthenium Complexes Containing Four Identical Unsymmetrical Bridging Lignds." *Inorg. Chem*. **2004**, *43*, 4825-4832.
10. Kadish KM, Phan TD, Giribabu L, Shao J, Wang LL, Thuriere A, Van Caemelbecke E, Bear JL. "Electrochemical and Spectroelectrochemical Characterization of Ru_2^{4+} and Ru_2^{3+} Complexes under a CO Atmosphere." *Inorg. Chem*. **2004**, *43*, 1012-1020.
11. Kadish KM, Phan TD, Giribabu L, Van Caemelbecke E, Bear JL. "Substituent and Isomer Effects on Structural, Spectroscopic, and Electrochemical Properties of Dirhodium(III,II) Complexes Containing Four Identical Unsymmetrical Bridging Ligands." *Inorg. Chem*. **2003**, *42*, 8663-8673.
12. Bear JL, Li Y, Cui J, Han B, Van Caemelbecke E, Phan TD, Kadish KM. "Reaction between the (3,1) Isomer of Ru2(F5ap)4Cl and CN. Synthesis, Structural Determination, and Electrochemistry of Ru2(F5ap)3[·-(·-NC)F4ap](·-CN) and Two Geometric Isomers Ru2(F5ap)4(·-CN)2." Inorg. Chem. 2000, 39, 857-861.

C. CONFERENCE ABSTRACTS

1.Tuan Phan, Taye Folabi. "Evaluation of volatile organic compounds and polyaromatic hydrocarbons in Barker Reservoir in Houston, Texas after the 2017 Hurricane Harvey." *American Chemical Society National Meeting*, Orlando, Florida, March 31-April 4, 2019.
2. Phan T., Adebowale A. "Analysis of Volatile Organic Substances in Crude Coconut and Petroleum Oils by GC-MS." *American Chemical Society – 65th Southwest Regional Meeting*, El Paso, Texas, Nov. 2009.
3. Phan T. "Introducing Metal Atom and/or Metal-Metal Bonded Fragment to Allopurinol." *Texas Southern University, Research Week*, 2008.
4. Phan T**.** "The Chemistry of Metal-Metal Bonded Complexes Containing Ruthenium

Atoms Bridged by Derivatives of 2-Anilinopyrdinate Anion Ligand," *Texas Southern University, Research Week*, 2007.
5. Nguyen M, Phan T, Caemelbecke EV, Bear JL, Kadish KM. "The reaction of $Ru_2(F_3ap)_4Cl$ with Na^+ SCN^- where F_3ap is the 2-(2,4,6-trifluoroanilino)pyridinate anion. Structural, electrochemical and spectroscopic characterization of the products." *Southwest American Chemical Society Meeting*, Houston, Texas, October 2006.
6. Kadish KM, Garcia R, Weeratunga D, Phan T, Caemelbecke EV, Bear JL. "Synthesis, Characterization and Reactivity of $Ru_2(O_2CCH_3)_x(Fap)_{4-x}Cl$ (HFap = 2-Flouroanilinopyridine, x = 3, 2 or 1)." *Southwest American Chemical Society Meeting*, Houston, Texas, October 2006.
7. Phan T. "Synthesis, Structural, Magnetic and Electrochemical Characterizations of a First Diruthenium Complex Containing Isothiocyanate Axial Ligand," *Texas Southern University*, Research Week, Houston, TX, 2006.
8. Garcia R, Phan T, Caemelbecke EV, Bear JL, Kadish KM. "Synthesis, Structural, Spectroscopic, and Electrochemical Characterization of Diruthenium(III,II) Complexes With Mixed Anionic Bridging Ligands," *American Chemical Society National Meeting*, Atlanta, GA, March 2006.
9. Phan T, Bear JL, Kadish KM. "Synthesis, Electrochemical and Spectroelectrochemical Charactizations of Nitrosyl Diruthenium Complexes," *Electrochemical Society International Meeting*, San Antonio, TX, May 2004.
10. Phan T, Caemelbecke EV, Bear JL, Kadish KM. "Synthesis and Electrochemical Characterization of High Oxidation State Diruthenium Complexes Containing Four Identical Unsymmetrical Bridging Ligands," *Electrochemical Society International Meeting*, San Antonio, TX, May 2004.
11. Phan T, Caemelbecke EV, Bear JL, Kadish KM. "Linear Free Energy Relationship of Dirhodium(III,II) Complexes with Unsymmetrical Bridging Ligands," *Southwest American Chemical Society Regional Meeting, San Antonio*, TX, November 2001.
12. Caemelbecke EV, Phan T, Kadish KM, Bear JL. "Reaction between the (3,1) Isomer of $Ru_2(F_5ap)_4Cl$ and CN-. Synthesis, Structural Determination, and Electrochemistry of $Ru_2(F_5ap)_3$[m-(o-NC)F_4ap](m-CN) and Two Geometric Isomers $Ru_2(F_5ap)_4(m\text{-}CN)_2$," *American Chemical Society National Meeting, New Orleans*, LA, August 1999.

VII. CURRENT & FORMER RESEARCH STUDENTS

Current Ph.D. Student:
Cynthia Turner

Former Ph.D. Students
Adedotun Adebowale, Ph.D., 2009
Jamie Dooley-Renfro, Ph.D., 2011
Haitham Abdelmoaty, Ph.D., 2018

Former M.S. Students
Taye Amos Folabi, M.S., 2018
Allison Carrington, M.S., 2018

Ali Alshehri, M.S., 2018
Christina Perez, M.S., 2018