

Curriculum Vitae: Thomas Junk (Mar. 2019)

Department of Chemistry
University of Louisiana at Lafayette
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PROFESSIONAL

2012–pres. Professor and Head, Department of Chemistry, University of Louisiana at Lafayette
2004–2012 Associate Professor of Chemistry (Tenured), University of Louisiana at Monroe
1998–2003 Assistant Professor of Chemistry, University of Louisiana at Monroe.
1994–1997 Staff Research Scientist, Hazardous Substance Research Center, Louisiana State University, Baton Rouge.
1990–1993 Research Associate, Institute for Environmental Studies, Louisiana State University.

RESEARCH INTERESTS

Synthesis and characterization of organic compounds containing heavy chalcogenides.
Organic reactions under aqueous near-critical and supercritical aqueous conditions.
Synthesis and application of stable isotope labeled standards as environmental tracers.

POSTDOCTORAL EXPERIENCE

1989 Texas A&M University, College Station, TX. Environmental Organic Chemistry.

EDUCATION

1983–88 Ph.D., Chemistry, Texas A&M University, College Station, TX. Dissertation Title: "Synthesis and Characterization of Diaryl Ditellurides and Heterocyclic Tellurium Compounds". Major Professor: K. J. Irgolic.
1983 B.S., Chemistry, University of Vienna, Austria.

HONORS

2010 ULM Outstanding Associate Professor of 2010, awarded by the University of Louisiana at Monroe Mortar Board.
1986 Robert A. Welch Predoctoral Research Fellow.
1987 Departmental Graduate Research Award, Texas A&M University.

TEACHING

While at UL Lafayette:
Fall '18 CHEM 232 (Organic 2), CHEM 233 (Organic Lab 1)

Fall '18 CHEM 231 (Organic 1), CHEM 234 (Organic Lab 2)
 Spring '18 CHEM 232 (Organic 2), CHEM 233(Organic Lab 1), CHEM 234 (Organic Lab 2)
 Spring '18 CHEM 232 (Organic 1), CHEM (Organic Lab 1), CHEM 234 (Organic Lab 2)
 Fall '17 CHEM 231-001 (Organic 1), 234-001 (Organic Lab 2)
 Spring '17 CHEM 232-001 (Organic 2), 234-001 (Organic Lab 2), 233-001 (Organic Lab 1)
 Fall '16 CHEM 231-001 (Organic 1), 234-001 (Organic Lab 2) , CHEM 432-001 (Advanced Organic)
 Fall '15 CHEM 232-001 (Organic 1), 234-001 (Organic Lab 2)
 Spring '15 CHEM 232-001 (Organic 2), 234-001 (Organic Lab 2)
 Fall '15 CHEM 232-001 (Organic 1), 234-001 (Organic Lab 2)
 Spring '15 CHEM 232-001 (Organic 2), 234-001 (Organic Lab 2)
 Fall '14 CHEM 231-001 (Organic 1), 234-002 (Organic Lab 2)
 Spring '14 CHEM 232-001 (Organic 2), 234-001 (Organic Lab 2), CHEM 432-001 (Advanced Organic)
 Fall '13 CHEM 231-001 (Organic 1), 234-002 (Organic Lab 2)
 Spring '13 CHEM 232-001 (Organic 2), 234-001 (Organic Lab 2)
 Fall '12 CHEM 231-001 (Organic 1), 233-001 (Organic Lab 1)

While at ULM:

Spring '12 CHEM 2030-60247 (Organic 2), CHEM 2031-60245 (Organic Lab 1), CHEM 2033-60249 (Organic Lab 2), CHEM 2033-60251 (Organic Lab 2)
 Fall '11 CHEM 2030-40259 (Organic 1), CHEM 2031-40261 (Organic Lab 1), CHEM 2031-40261 (Organic Lab 1), CHEM 2031-40263 (Organic Lab 1)
 Spring '11 CHEM 2030-60247 (Organic 2), CHEM 2031-60245 (Organic Lab 1), CHEM 2033-60249 (Organic Lab 2), CHEM 2033-60251 (Organic Lab 2)
 Fall '10 CHEM 2030-40259 (Organic 1), CHEM 2031-40261 (Organic Lab 1), CHEM 2031-40261 (Organic Lab 1), CHEM 2031-40263 (Organic Lab 1)
 Spring '10 CHEM 230-01 (Organic 1), CHEM 232-01 (Organic 2), CHEM 231-01 (Organic Lab 1), CHEM 233-03 (Organic Lab 2), CHEM 233-05 (Organic Lab 2)
 Fall '09 CHEM 230-01 (Organic 1), CHEM 232-01 (Organic 2), CHEM 233-01 (Organic Lab 2), CHEM 233-03 (Organic Lab 2), CHEM 233-05 (Organic Lab 2)
 Spring '09 CHEM 232-01 (Organic 2), CHEM 233-01, -05 (Organic Lab 2), CHEM 430-01 (Advanced Organic)
 Fall '08 CHEM 230-03 (Organic 1), CHEM 231-01, -06 (Organic Lab 1), CHEM 431-01 (Intermediate Organic Lab)
 Spring '08 CHEM 230-01 (Organic 1), CHEM 232-01 (Organic 2), CHEM 233-01, -03, -05 (Organic Lab 2)
 Fall '07 CHEM 230-01 (Organic 1), CHEM 232-01, -03, -05 (Organic Lab 1)
 Spring '07 CHEM 232-01 (Organic 2), CHEM 233-01, -03, -05 (Organic Lab 2)
 Fall '06 CHEM 230-01 (Organic 1), CHEM 231-01 (Organic Lab 1), CHEM 231-03 (Organic Lab 1), CHEM 431-01 (Intermediate Organic Lab)
 Spring '06 CHEM 232-01 (Organic 2), CHEM 233-01 (Organic Lab 2), CHEM 233-03 (Organic Lab 2), CHEM 233-05 (Organic Lab 2)

Fall '05 CHEM 230-01 (Organic 1), CHEM 231-01 (Organic Lab 1), CHEM 231-03 (Organic Lab 1), CHEM 231-05 (Organic Lab 1)

Spring '05 CHEM 304-01 (Organic 2), CHEM 306-01, -03, -05 (Organic Lab 2)

Fall '04 CHEM 304-01 (Organic 2), CHEM 305-03, -05 (Organic Lab 1), CHEM 405-01 (Intermediate Organic Lab)

Spring '04 CHEM 303-01 (Organic 1), CHEM 304-01 (Organic 2), CHEM 306-02 (Organic Lab 2)

Fall '03 CHEM 303-01 (Organic 1), CHEM 305-03, -05 (Organic Lab 1), CHEM 306-01 (Organic Lab 2)

Spring '03 CHEM 304-01 (Organic 2), CHEM 305-01 (Organic Lab 1), CHEM 430-01 (Advanced Organic)

Fall '02 CHEM 304-01 (Organic Lab 2), CHEM 405-01 (Intermediate Organic Lab)

Spring '02 CHEM 303-01 (Organic 1), CHEM 304-01 (Organic 2), CHEM 306-03, -05 (Organic Lab 2)

Fall '01 CHEM 531-01 (Organic Synthesis, Graduate), CHEM 303-03 (Organic 1), CHEM 301-03 (Seminar), CHEM 536-03 (Seminar, Graduate)

Spring '01 CHEM 305-03 (Organic Lab 1), CHEM 405-01 (Intermediate Organic Lab)

Fall '00 CHEM 304-01 (Organic 2), CHEM 306-01, -02 (Organic Lab 2), CHEM 110 (Qualitative Analysis)

Spring '00 CHEM 303-02 (Organic 1), CHEM 305-03 (Organic Lab 1), CHEM 532-01 (Spectral Identification of Organic Compounds, Graduate), CHEM 109-01 (General Chemistry Lab)

Fall '99 CHEM 303-01, -02 (Organic I), CHEM 305-05 (Organic Lab 1)

Spring '99 CHEM 303-02 (Organic 1), CHEM 305-01, -03 (Organic Lab 1)

Fall '98 CHEM 303-01, -02 (Organic 1), CHEM 305-01 (Organic Lab 1)

Spring '98 CHEM 303-01, -02 (Organic I), CHEM 305-01 (Organic Lab 1)

Teaching Before Spring '97:

1996 Instructor, Environmental Organic Chemistry 7003, Louisiana State University.

1984 Teaching Assistant, General Laboratories, Texas A&M University.

SOCIETIES

Phi Lambda Upsilon (1994-pres.), American Chemical Society (1995-pres.), Sigma Xi (1996-pres.), Louisiana Academy of Sciences (2009-pres.), American Association for the Advancement of Science (2005-pres).

COMMITTEE MEMBERSHIPS

2014-pres. Member, Department Heads' Council

2012-2017 Senator, UL Faculty Senate

2012-pres. Chair, UL Chemistry MS Program Re-Instatement Committee

2012 Member, Search Committee for ULM Vice President for Academic Affairs

2012 Member, Tenure and Promotion Committee, Dept. of Mathematics

2012 Member, College of Arts and Sciences Academic Excellence Awards Committee

2011-12 Senator, ULM Faculty Senate

2010-12 Chair, Departmental Policy and Scheduling Committee

2010-12 Member, Departmental Awards Committee

2010-12 Member, Departmental Curriculum Committee

2010 Member, Tenure and Promotion Committee, Dept. of Mathematics
 2010 Member, Tenure and Promotion Committee, Dept. of Chemistry
 2010 Member, Department Head Search Committee, Dept. of Chemistry
 2009-12 Member, College of Arts and Sciences Budget & Steering Committee
 2007-12 Departmental Library Liaison
 2007 Member, Department Head Search Committee, Dept. of Mass Communications
 2007 Member, Departmental Curriculum Committee
 2007 Chemistry Representative, ULM Disaster Recovery Committee
 2007 Member, College Tenure & Promotion Committee
 2007 Chair, Departmental Tenure & Promotion Committee
 2006-07 Member, Departmental Master's Program Re-Instatement Committee
 2006-08 Member, Departmental Faculty Search Committee
 2005 Member, Departmental Curriculum Committee
 2000-02 Member, ULM Faculty Development Grants Program.
 2001-02 Member, Search Committee for Dean of Pure and Applied Sciences
 1999-00 Member, ULM Environmental Program Evaluation Committee

GRADUATE STUDENTS DIRECTED

(ULM's graduate program was terminated in 2003)

Prabodhika R. Mallikaratchy, "Synthesis of Novel Organotellurium Compounds", Summer **2003**.

Abdulrahman Alhazmi, "Halogen Exchange Reactions In Superheated Aqueous Media", Spring **2002**.

Rashmi Nair, "Synthesis and Characterization of Novel Organotellurium Compounds", Spring **2002**.

Sridevi Goskonda, "Ultrasonic Treatment of Refractory Environmental Pollutants", May **2000**.

Malinda L. Godwin, "Determination of Mercury Levels in Crayfish by Cold Vapor Atomic Absorption Spectroscopy", December **1999**.

UNDERGRADUATE STUDENTS DIRECTED

2018 Directed undergraduate research students: Kourtnei L. Goutierrez, Hannah Istre, Sandhu Humneet, Whitney E. Smith and Dallas N. Alexis

2017 Directed undergraduate research students: Brent A. Larson, Jayna S. Patel.

2016 Internship "A supercritical flow reactor", French Intern Teddy Lacourcelle.
 Directed study students: Morgan Savoie, Nathaniel Silar.

2015 Directed study "Synthesis of novel polydentate ligands" Kalyn E. Wilson.

2014-2015 Directed Study "Reactions in superheated media", Joshua Myers.

2014-2016 Directed Study "Derivatives of bis(2-aminophenyl)ditelluride", Kaitlynn E. Walker

2014 Internship "Organic reactions in near- and supercritical aqueous media", French Intern Martin Kévin.

- 2013-2015 Directed Study “Novel organotellurium heterocycles”, Gabrielle Sanford
- 2013-2014 Directed Study “Synthesis of 2,6-bis(chloromethyl)phenols”, Heidi D. Early
- 2013-2014 Directed Study “Development of new pegylation protocols”, Joshua Myers
- 2013 Directed Study “Novel phenolic ligands”, Jeanne Theriot.
- 2012 Directed Study “Novel strategies for modifying the polarity of bioactive molecules” (cooperative study with ULM Pharmacy). Student investigator: Marlena Patrick.
- 2012 Directed Study “Novel organotellurium ligands”, Student investigator: Ann Lee.
- 2011 Directed Study “Synthesis of compounds derived from diphenyl ditelluride”, Student investigator: Jennifer Watkins.
- 2009 Directed study “Synthesis and properties of 2-aminoarenetelluroles”, Student investigator: Nathan McMullen.
- 2007 Directed study “Synthesis of organotellurium heterocycles and key intermediates”, Student investigator: Cody Lewis.
- 2007 Directed study “Synthesis of novel organotellurium heterocycles”, Student investigator: Dennis Ezell.
- 2005 Directed study “Towards organotellurium crown ethers”, Student investigator: Nicholas Bullard.
- 2004 Faculty Advisor, student research project “Preparation of novel organotellurium heterocycles”, Student investigator: Cathy Tran.
- 2003 ULM Emerging Scholars Program, Mentor, project “Alkylation Reactions of Aromatic Amines under Superheated Conditions”, Student investigator: Chris Hunt.
- 2003 ACS Project SEED Mentor, project “Chemical Reactions in Superheated Media”. Student investigator: Jah’Keem Foster.
- 2003 Faculty Advisor, JBF Funded Project “Chemical Reactions in Superheated Water”, Student Investigator: Kathryn Pham.
- 2003 ULM Emerging Scholars Program, Mentor, project “Superheated Water as Environmentally Friendly Reaction Medium”. Student Investigator: Logan Atkins.
- 2002-03 Faculty Advisor, Howard Hughes project “Propanil Degradation Products III: Synthesis of 3-[2-Chloro-5-(3,4-dichlorophenylazo)-phenyl]-propanoic Acid, Preparation of Polychlorinated Diaryl Amines”. Student investigator: Matthew J. Sewell.
- 2002 Faculty Advisor, JBF Funded Project “Chemical Reactions in Superheated Water”, Student Investigator: Adam Marchard.
- 2001 ACS Project SEED Mentor, project “Organic Reactions in Superheated Water”. Student investigator: Virginia R. Coonce.
- 2001 Faculty Advisor, Howard Hughes project “Propanil Degradation Products II: Preparation and Characterization of Two Compounds Related to Tetrachlorazobenzene”. Student investigator: Brian Keator.
- 2001 Faculty Advisor, Howard Hughes project “Preparation and Characterization of Nitroaromatic Compounds Related to 2,4,6-Trinitrotoluene (TNT)”. Student investigator: Iveri Zhvania.
- 2001 Faculty Advisor, Howard Hughes project “Preparation and Characterization of Propanil Degradation Products”. Student investigator: Brian Keator.

2001 Faculty Advisor, "Rapid Access to Deuterium-Tagged Hydrocarbons and Their Functional Derivatives", Student Investigator: Aaron Clarke (funded by the Petroleum Research Fund).

COMMUNITY SERVICE

2013-pres. Judge at various Louisiana Academy of Sciences meetings.
2012-pres. Volunteer, Chicot State Park trail maintenance
2012 Judge, 86th Meeting of the Louisiana Academy of Sciences, Monroe, LA, Mar. 4, 2012.
2011 Web Master and Coordinator for Visiting Speakers, Ouachita Valley Section of the American Chemical Society
2011 Session Chair and Judge, 85th Meeting of the Louisiana Academy of Sciences, Monroe, LA, Feb. 26, 2011.
2010 Judge, 84th Meeting of the Louisiana Academy of Sciences, Alexandria, LA, Feb. 27, 2010.
2009 Chair, Ouachita Valley Section of the American Chemical Society
2008 Chair-Elect and Interim Chair, Ouachita Valley Section of the American Chemical Society
2004–2007 Director, Louisiana Region III Science and Engineering Fair
2003–2006 Secretary, Ouachita Valley Section of the American Chemical Society
2002 Chair, Ouachita Valley Section of the American Chemical Society.
2001 Acting Chair and Chair-Elect, Ouachita Valley Section of the American Chemical Society.
1998–pres. Faculty Advisor, ULM ACS Student Affiliates.
1995–1996 Sierra Club, Baton Rouge Group. Outings Chair and voting member of the Executive Committee.

OTHER ACTIVITIES

Developer of commercial MS Windows based software for GC and GC-MS file format conversions and data import/export routines. Extensive experience with Microsoft Foundation Class Programming. Familiar with the Linux environment. Author of commercial scientific data processing software.

CORPORATE, CONSULTING

1996 – 2014 Consultant, GC-MS data processing automation and software development (for ChemSW, Inc.).
1997 – 2000 Developer of a standardized GC-MS file format interface (for the National Institute for Standards and Technology, NIST).
1996 – 1998 Owner of JC Scientific, commercial MS Windows based scientific software for export/format conversions of GC and GC-MS data files.

PATENTS

W. J. Catallo and T. Junk "Transforming Biomass to Hydrocarbon Mixtures in Near-Critical and Supercritical Water", U.S. Patent 6,084,147, issued 10/2/2000.

T. Junk and W. J. Catallo "Process For Preparing Deuterium-Tagged Compounds and Uses Therefore", U.S. Patent 5,830,763, issued 11/3/1998.

GRANTS

- 2018 Chemical Reactions with Light: UV Lamps for Photochemical Experiments in Organic Chemistry Labs, T. Junk (PI) and R. L. Simon, UL STEP Fund, \$2,100.
- 2017 Benchtop NMR Spectrometer for Integration into the Chemistry Curriculum, A.A. Gallo (PI), R. L. Simon, T. Junk, W. Xu: Board of Regents Support Fund, (LEQSF(2017-18)-ENH-TR-30), \$58,366, 2017-2018.
- 2017 ChemDraw chemical structure drawing software for student use and training, T. Junk, UL STEP Fund, \$4,460.
- 2016 Purchase of an Attenuated Total Reflectance (ATR) Tool for Chemistry to Conduct Infrared Spectroscopy on Solids, T. Junk and A. A. Gallo, UL STEP Fund, \$5,602.
- 2015-2016 Integrating Analytical Ultracentrifugation into Chemistry Teaching and Research Laboratories for Undergraduates Majoring in Chemistry, Biology and Engineering, Wu Xu (PI), Rakesh K. Bajpai, Andrei Y. Chistoserdov, August A. A. Gallo, Thomas Junk, Richard S. Perkins, and Radhey S. Srivastava, Board of Regents Support Fund, (LEQSF(2015-16)-ENH-TR-34), \$58,366.
- 2015 Raman Spectroscopy in Chemistry Labs, T. Junk, \$10,655, UL STEP Fund.
- 2014-2015 Integrating Fluorescence Spectroscopy into Chemistry Teaching and Research Laboratories for Undergraduates Majored Chemistry, Biology and Engineering, W. Xu (PI), Rakesh K. Bajpai, Andrei Y. Chistoserdov, August A. Gallo, Thomas Junk, Salah S. Massoud, Richard S. Perkins, Radhey S. Srivastava, and Eric R. Taylor, Board of Regents Support Fund, LEQSF(2014-15)-ENH-TR-28, \$33,222.
- 2013 Laptop Computers for Chemistry Lectures, T. Junk, \$3,285, UL STEP Fund.
- 2012 Acquisition of an LCD Projector for the Chemistry Program T. Junk and J. DeGuzman, \$783, UL STEP Fund.
- 2012 Smart Classrooms in Chemistry, T. Junk and A. A. Gallo, \$30,000, UL Step UL STEP Fund.
- 2011 Dean's Research and Creative Project Fund, ULM College of Arts and Sciences, \$932.
- 2010 Dean's Research and Creative Project Fund, ULM College of Arts and Sciences, \$958.
- 2008-2009 Introduction of Microwave Assisted Techniques to ULM's Chemistry Program, T. Junk and H. O. Brotherton, Board of Regents Support Fund, LEQSF(2008-09)-ENH-TR-56, \$101,060.
- 2007-2008 Networking Chemistry's Instrumental Laboratory, ULM STAP Program, T. Junk and H. O. Brotherton, \$10,692 requested, \$6,400 awarded.
- 2005-2006 Acquisition of an Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES), T. Junk, D. E. Hubbard, H. O. Brotherton, P. R. Albuquerque, Board of Regents Support Fund, LEQSF(2005-06)-ENH-TR-89, \$90,683.
- 2002-2003 Upgrading ULM's Instrumental Teaching Capabilities, T. Junk and H. O. Brotherton, Board of Regents Support Fund, LEQSF(2002-03)-ENH-TR-84, \$53,106.

- 2001-2002 Superheated Water as Environmentally Friendly Reaction Medium, J. Bennett Johnston Science Foundation, #5-25471, T. Junk, \$5,000.
- 2001 Chemical Structure Drawing Software, ULM STAP Program, T. Junk, \$4,270.
- 1999-2003 Rapid Access to Deuterium-Tagged Hydrocarbons and Their Functional Derivatives *via* The Supercritical Deuterium Exchange Technique, Petroleum Research Fund, #34409-B4, T. Junk, \$30,000.
- 1999-2000 Purchase of a Flammable Material Storage Refrigerator for the Chemistry Department, ULM Development Grant, T. Junk \$2,600.
- 1999-2000 Modernization of ULM Instrumental Teaching Laboratory, H. O Brotherton and T. Junk, Louisiana Board of Regents Support Fund, LEQSF(1999-00)-ENH-TR-64, \$59,070.
- 1999 Departmental Enhancement: Acquisition of Core Equipment for the Continuing Growth of the ULM Chemistry Program, ULM Development Grant, T. Junk \$3,400.
- 1997-1998 Sonochemical Treatment of Hazardous Organic Hydrocarbons III: Project Continuation, June 1997–May 1998, \$76,000.
- 1996–1997 Sonochemical Treatment of Hazardous Organic Hydrocarbons II, Process Optimization and Pathway Studies, Project Continuation, T. Junk and W. J. Catallo. \$65,200.
- 1995–1996 Sonochemical Treatment of Hazardous Organic Hydrocarbons: Process Optimization and Pathway Studies, Gulf Coast Hazardous Substance Research Center Grant, T. Junk and W. J. Catallo, \$79,000.
- 1994–1995 Biodegradation of Toxic Chemicals from Petroleum and Produced Waters in Brackish Marsh Sediments: Pathway Studies and Degradation Rate Enhancement Using Deuterated Tracers, Louisiana Applied Oil Spill Research and Development Program, W. J. Catallo and T. Junk, \$140,000.
- 1993–1994 Sonochemical Treatment of Hazardous Chlorinated Hydrocarbons in Water and Sediments, Gulf Coast Hazardous Substance Research Center Grant, W. J. Catallo and T. Junk, \$79,000.

Total funding received to date: \$900,000.

BOOK CHAPTERS

T. Junk, “Recent Advances in the Preparation and Characterization of Te, N-Containing Heterocycles”, in: Tellurium: Properties, Uses and Research, Ed. Doris Grey, Nova Science Publishers, Inc., ISBN 978-1-53610-555-1, **2017**, pp. 107-137.

PEER-REVIEWED JOURNAL PUBLICATIONS

- T. Junk** and K. J. Irgolic, "4-Methoxyphenyltellurium Trichloride", *Organomet. Synth.* **1986**, 3, 640–1.
- T. Junk** and K. J. Irgolic, "2-Nitrophenyl(phenyl) Selenide", *Organomet. Synth.* **1986**, 4, 641–2.
- T. Junk** and K. J. Irgolic, "Telluranthrene", *Organomet. Synth.* **1988**, 4, 604-5.

4. **T. Junk** and K. J. Irgolic, "Bis(3-chloro-2-pyridyl) Ditelluride", *Organomet. Synth.* **1988**, 4, 604–5.
5. K. J. Irgolic, **T. Junk**, C. Kos, W. S. McShane, and G. C. Pappalardo, "Preparation of Trimethyl-2-hydroxyethylarsonium (Arsenocholine) Compounds", *J. Appl. Organomet. Chem.* **1987**, 1, 403–12.
6. **T. Junk** and K. J. Irgolic, "Synthesis of 2-Methyl-3-azaareno[d]tellurophenes", *Phosphorus Sulfur* **1988**, 38, 121–35.
7. G. Distefano, V. Galasso, **T. Junk**, K. J. Irgolic and G. C. Pappalardo, "Dipole Moments in the (I)-Photoelectron Spectroscopic Studies of the Conformations of Thioselenanthrene, Thiotelluranthrene, and Selenotelluranthrene", *Phosphorus Sulfur* **1988**, 38, 281–91.
8. A. E. Meyers, K. J. Irgolic, R. A. Zingaro, **T. Junk**, R. Chakravorty, N. L. M. Dereu and K. French, "The Crystal Structures of 9,10-Dichalcogenaanthracenes, C₁₂H₈(X,Y); (X,Y) = (S, Se), (S, Te), (Se, Te) and (O, Se)", *Phosphorus Sulfur* **1988**, 2, 257–69.
9. **T. Junk** and K. J. Irgolic, "5-Aza-10-tellura-5,10-dihydroanthracenes (Phenotellurazines)", *Heterocycles* **1989**, 28, 1007–13.
10. **T. Junk**, G. Gitzner, and K. J. Irgolic, "Improved Preparation of Tetrahydroselenophene (Selenacyclopentane) and Tetrahydrotellurophene (Telluracyclopentane)", *Synth. React. Inorg. Met. Org. Chem.* **1989**, 19, 931–3.
11. M. E. Amato, K. J. Irgolic, **T. Junk**, G. C. Pappalardo, and B. Perly, "H-1 and C-13 NMR Spectra of *rac*-Bis(palmitoyloxy)-3-propyl-(2-trimethylarsinoethyl) Phosphonate, an Arsenic-Containing Phosphonolipid", *Mag. Res. in Chem.* **1990**, 28, 856–61.
12. **T. Junk** and K. J. Irgolic, "Synthesis and Characterization of *rac*-1,2-Bis(palmitoyloxy)-3-propyl-(2-trimethylarsinoethyl) Phosphonate, an Arsenic-Containing Phosphonolipid", *Appl. Organomet. Chem.* **1990**, 4(2), 103–9.
13. **T. Junk**, K. J. Irgolic and E. A. Meyers, "Crystal Structure of Bis(3-chloro-2-pyridyl) Ditelluride", *Acta Cryst.* **1992**, C49, 975–6.
14. **T. Junk**, K. J. Irgolic, J. H. Reibenspeis and E. A. Meyers, "Structure of Phenotellurazine", *Acta Cryst., Section C: Cryst. Struct. Commun.* **1993**, C49(5), 938–40.
15. **T. Junk**, K. J. Irgolic and E. A. Meyers, "Bis-(3-chloro-2-pyridyl) Ditelluride", *Acta Cryst., Section C: Cryst. Struct. Commun.* **1993**, C49(5), 975–6.
16. W. J. Catallo and **T. Junk**, "Sonochemical Dechlorination of Hazardous Wastes in Aqueous Systems", *Waste Management* **1995**, 15(4), 803–8.

17. E. A. Meyers, **T. Junk**, and K. J. Irgolic, "Crystal Structure of Trichloro(2-phenylselenophenyl)tellurium, $\text{TeSeCl}_3\text{C}_{12}\text{H}_9$ ", *Z. Kristallogr.* **1995**, 210, 552–3.
18. **T. Junk** and W. J. Catallo, "Preparative Supercritical Deuterium Exchange in Arenes and Heteroarenes", *Tetrahedron Lett.*, **1996**, 37, 3445–8.
19. **T. Junk** and F. R. Fronczek, "Photostimulated Telluromethylation", *Tetrahedron Lett.*, **1996**, 37, 4361–2.
20. **T. Junk**, W. J. Catallo, L. D. Civils, "Synthesis of Polydeuterated Benzothiazoles via Supercritical Deuteration of Anilines", *J. Labelled Compds. Radiopharm.*, **1997**, 39(8), 625–30.
21. **T. Junk**, W. J. Catallo, and J. Elguero. "Syntheses in Superheated Aqueous Media: Preparation of Fully Deuterated Pyrazoles and Quinoxalines", *Tetrahedron Lett.* **1997**, 38(36), 6309–12.
22. **T. Junk** and W. J. Catallo. "Hydrogen Exchange Reactions Involving C–H (D, T) Bonds" (invited review paper), *Chem. Soc. Rev.* **1997**, 26(5), 401–6.
23. M. L. Jimeno, N. Jagerovic, J. Elguero, **T. Junk**, and W. J. Catallo, " ^1H and ^{13}C NMR Study of Perdeuterated Pyrazoles", *Spectroscopy*, **1997**, 13, 291–4.
24. **T. Junk** and W. J. Catallo, "Environmental Transformation Products of 2,4,6-Trinitrotoluene", *Chem. Speciation Bioavail.*, **1998**, 10(2), 47–52.
25. A. Muñoz, M. Sánchez, **T. Junk** and A. Virgili, "The Preparation of Perdeuterio-2,2,2-trifluoro-1-(1-pyrenyl)ethanol: A Second Case of Chiral Recognition Between Isotopomers", *J. Org. Chem.* **2000**, 65, 5069–71
26. E. F. Emery, **T. Junk**, R. E. Ferrell and L. G. Butler, "Solid State ^2H MAS Studies of TNT Absorption in Soil and Clays", *Environ. Sci. Technol.* **2001**, 35, 2973–8.
27. A. R. Clark, R. Nair, F. R. Fronczek and **T. Junk**, "Facile Access to Aryltellurium Compounds from Arylboronic Acids", *Tetrahedron Lett.* **2002**, 43, 1387–9.
28. S. Goskonda, W. J. Catallo, and **T. Junk**, "Sonochemical Degradation of Aromatic Organic Pollutants", *Waste Management* **2002**, 22(3), 351–6.
29. P. Mallikaratchy, R. E. Norman, F. R. Fronczek and **T. Junk**, "Tribromo(3,5-dimethyl-2-nitrophenyl- $\kappa^2\text{C}^1,\text{O}$)tellurium(IV), bromo(3,5-dimethyl-2-nitrophenyl- $\kappa^2\text{C}^1,\text{O}$)tellurium(II) and bromo(3,5-dimethylnitrosophenyl- $\kappa^2\text{C}^1,\text{O}$)tellurium(II), *Acta Cryst.* **2003**, C59, o571–4.
30. W. J. Catallo and **T. Junk**, "Effect of Static vs. Tidal Hydrology on Pollutant Transformation in Wetland Sediments", *J. Env. Quality* **2003**, 32, 2421–7.

31. P. R. Mallikarachy, F. R. Fronczek, H. O. Brotherton and **T. Junk**, “Facile Access to Novel Organotellurium Heterocycles by Nitration of Bis-(3,5-Dimethylphenyl) Ditelluride”, *J. Heterocycl. Chem.* **2005**, *42*, 243-247.
32. P. R. Mallikarachy, R. E. Norman, F. R. Fronczek and **T. Junk**, “(μ-Diazenediyl)diphenyl-κ²C²,N²:κ²C²,N¹)bis[(3,5-dimethylphenyl)tellurium(II)]”, *Acta Cryst.* **2005**, *E61*, 1370-2.
33. W. J. Catallo and **T. Junk**, “Transformation of Benzothiazole in Estuarine Sediments”, *J. Env. Quality* **2005**, *34*, 1746-1754.
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