KEVIN L. ARMBRUST

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CAREER OBJECTIVES: Providing organizational leadership, balancing the needs of man and the environment through influencing policy based upon research, education and the best available science to promote public and environmental health.

EDUCATION:

1982-1987:	University of California at Davis
Degree:	B.S. (June 1987)
Major:	Environmental Toxicology
1987-1992:	University of California at Davis
Degree:	Ph.D. (June 1992).
Major:	Agricultural and Environmental Chemistry

WORK EXPERIENCE

January 2015 – present – Chairman: Department of Environmental Sciences, Louisiana State University
August 2013 to present – Professor (tenured) and Endowed *Claiborne Chair of Environmental Toxicology*: Department of Environmental Sciences, College of the Coast and Environment, Louisiana State University.
Administrative:
July 2020 to present: Adjunct faculty School of Renewable and Natural Resources, College of Agriculture, Louisiana State University.
March 2020 to August 2023. Adjunct faculty, College of Science and Engineering, Texas A&M Corpus Christi.

Oversee operations and administrative functions of a department with 17 faculty as well as administrative staff, post-doctoral researchers, research associates, and graduate assistants (62 total). Administrate departmental budgets consisting of state appropriated funds as well as private and foundational accounts. Participate with Dean of the College in fund-raising activities. Oversee strategic plan preparation, departmental assessments and faculty and staff performance evaluations. Represent the department to external stakeholder groups and on College and University level advisory committees. Represent the college on selected internal and external committees as requested by the college Dean. Actively engage in outreach to create synergies between faculty in CCE and those in the College of Agriculture, LSU Ag Center and LA SeaGrant.
Technical: Establish and lead a research program in the general areas of chemical residue analysis and the movement, disposition and ultimate fate of chemicals in environmental matrices (water, sediment and biota). Assessments of the fate and effects of chemicals in and upon Louisiana watersheds, wetlands and coastal areas. Develop laboratory and field methods to assess important biological and physical dissipation processes in surface soils/sediments as well as near surface water and measuring contributions of chemical loads by different use patterns to non-target freshwater and marine watersheds. Transport of pesticides, petrochemicals, and human health pharmaceuticals and their degradation products in soil and water, the influence of sunlight on their degradation in soil and water, environmental and biological processes influencing pesticide and pharmaceutical degradation, and the environmental impact of pesticides and pharmaceutical products. Assessment and impacts of chemical contamination in manufactured and retail

food and animal feed on human health. Process development to incorporate the best available science into regulatory and policy decisions at the state, national and international levels.

April 2002 to June 2013 – State Chemist; Director and Chief, Office of the State Chemist and the Mississippi State Chemical Laboratory; Associate Professor of Chemistry (tenured); Adjunct Professor of Basic Sciences College of Veterinary Medicine; and Adjunct Professor of Biochemistry, Molecular Biology, Entomology and Plant Pathology, Mississippi State University.
Administrative: State Chemist - jointly develops, promulgates, modifies and enforces regulations, standards and specifications of animal feeds, food, fertilizers, pesticides, gasoline, kerosene, diesel and antifreeze sold in the state with the Commissioner of Agriculture and Commerce. Represents the agency to other state and national agencies and serves on boards, commissions and organizations as appointed or required by law. Prepares and presents budget requests and new legislation before the state budget office and legislative committees. Acts as Director and Chief of a University level research center with 40 full-time staff as well as part-time staff, undergraduate and graduate students, post-doctoral researchers, visiting scientists and faculty affiliates involved in chemical/other analysis of feeds, fertilizers, pesticides, pesticide residues, toxic and hazardous substances, foods, petroleum products, and other materials controlled in state regulatory programs. Administrates a budget of ca 2.4 MM/yr of state appropriated funds and ca. 1.1 MM/yr of external contracts and grants supporting research in the regulatory sciences and contract analysis of pesticides/agricultural and industrial products. In addition to its regulatory and research functions the laboratory provides scientific information services to citizens, industries, and government entities in the state.

April 1998 to March 2002: Asst. Professor: University of Georgia
Appointment: 100% Research
Administrative: Administration and management of budget related to program grants (responsible for approximately 1.5 million dollars as principal investigator). Coordination and supervision of technical staff (three laboratory and one field). Direct all operations in the pesticide residue and environmental fate laboratory. Establish, foster and capitalize on synergies resulting from collaborative efforts of local, state and federal government entities, industry and academic researchers to solve watershed level problems. On behalf of the state, work with federal regulators and industry to resolve pesticide issues impacting business (farmers, golf courses and professional lawn applicators) and environmental interests in the state.
Technical: Develop program to assess the fate and effects of chemicals in and upon Georgia watersheds. Develop laboratory and field methods to assess important biological and physical dissipation processes in surface soils/sediments as well as near surface water and measuring contributions of chemical loads by different turf use patterns to non-target freshwater and marine watersheds. Transport of pesticides, and human health pharmaceuticals and their degradation products in soil and water, the influence of sunlight on their degradation in soil and water, environmental and biological processes influencing pesticide and pharmaceutical degradation, and the environmental impact of pesticides and pharmaceutical products.

May 1992 – April 1998
Research Chemist - DuPont Agricultural Products.
Responsibilities:
Administrative: Team leader for commercialization of fungicide development candidates including project and budget management, coordination and supervision of team personnel. Technical focal point responsibilities for corporate surface water quality issues and photolysis competencies. Project management in these areas
Technical: Design and implementation of laboratory and field experiments according to Good Laboratory Practice (GLP) to determine the persistence and fate of pesticides in soil, water, plants and animals in support of their registration and reregistration in the US, Europe and Asia. Measurements of physical properties influencing persistence and fate (i.e. Koc, quantum yield, Henry's Law, etc.) and residue

analysis. Radiolabeled chemicals were used whenever possible. Coordination and supervision of laboratory, field, and contract personnel involved in this work.

Design and implementation of experiments (laboratory and field) to determine how agronomic practices and environmental factors influence the residues, degradation and off-site transport of pesticides and their degradation products, with emphasis on chemicals used on rice. Influence of these factors in exposure models with emphasis on EXAMS2. Such information is used to support biological efficacy research, as well as to influence regulatory agencies.

September 1985 - April 1992
Graduate Research Assistant/Post Graduate Researcher/Undergraduate Research Assistant – UC Davis
Responsibilities: Design and implementation of research projects. Coordination and supervision of laboratory and field personnel (students) involved in research projects. Preparation and submission of concise, quarterly, progress reports for principal investigator to report to funding agencies.

Summers 1980-85
Head Lifeguard/Pool Manager - Yuba City Municipal Pool
Responsibilities: Organization of lesson plans, scheduling and management of lifeguards (approximately 15 staff total). General pool maintenance, balancing pH and free chlorine levels, maintaining and troubleshooting filter system, general administration and coordination between pool staff and city officials.

TEACHING EXPERIENCE

2014 to date: LOUISIANA STATE UNIVERSITY: Instructor for ENVS 1127 Honors Introduction to Environmental Sciences; ENVS 4101 Environmental Chemistry; ENVS 4102 Environmental Fate of Pollutants; ENVS 4477 Introduction to Environmental Toxicology; ENVS 7900/7950 Pesticide Chemistry; ENVS 4999 Capstone in Coastal Environmental Science. Developed and taught ENVS 4102 and ENVS 7950.

Fall Semesters 2006, 2007, 2008, and 2003, 2004: MISSISSIPPI STATE UNIVERSITY: Instructor for CHEM 4303/6303 Environmental Chemistry.

Fall 2005: MISSISSIPPI STATE UNIVERSITY: Instructor for CHEM 8990 Special Topics: Chemistry of Poisons and Poisoning.

Spring 2005: MISSISSIPPI STATE UNIVERSITY: Instructor for CHEM 4000 Directed Independent Study
(3 undergraduate students)

2001: UNIVERSITY OF GEORGIA: Workshop Instructor: Turf Impacts on Watersheds: Implications for Water Quality. Row and Mow Expo. January 22-24, 2001.

1999: UNIVERSITY OF GEORGIA: Workshop Instructor: Turf Impacts on Watersheds: Implications for Water Quality. Georgia Turfgrass Conference and Show. December 7-9, 1999.

1995-1997: UNIVERSITY OF DELAWARE: Undergraduate Chemistry Laboratory Instructor. Monitoring laboratory activities. Aiding/tutoring students with questions concerning course material. Grading/proctoring of exams and laboratory projects.

1994- UNIVERSITY OF DELAWARE Guest Lecturer: Pesticides in the Environment. Topic: Photodegradation of Pesticides and Atmospheric Transport Processes.

1991 UC-DAVIS: Teaching Assistant for Environmental Toxicology 112A (Toxicants in the Environment)
Responsibilities: Grading of exams and homework assignments. Aiding/tutoring students with questions concerning course material. Liaison between students and professor.

GRADUATE STUDENTS

As major professor

- Jessica Stephens – MS - Anticipated December 2023 - current
- Scott St. Romaine – Ph.D. – Anticipated December 2023 - current
- Brenda Martinez – Ph.D. – Anticipated December 2022 - current
- Michael LaNasa – MS – Withdrew Sept 2020
- Xavier Poole – MS – June 2020
- Emily Vebrosky – Ph.D. – December 2018
- Jessica Landry – MS - May 2018
- Emily Wall – MS – December 2017
- Ashennur Soysal – MS – December 2017
- Tamara Estes – Ph.D. – August 2017
- Parichehr Sarajampour – Ph.D. – May 2017
- Brendan Marsh – MS – December 2016
- Emily Vebrosky – MS – May 2016

As committee member

- Caitlin duNux – Environmental Sciences, Ph.D. – current
- Nin Gan – Life Sciences, Texas A&M Corpus Cristi, Ph.D. - current
- Ajit Ghirmire – Environmental Sciences, Ph.D. – 2019
- Xia Guan - Environmental Sciences, Ph.D. – 2019
- Dylann Phillippe – Environmental Sciences, M.S. - 2018
- Keyth Pankau – Environmental Sciences, M.S. - 2018
- Glenn Suir – Oceanography and Coastal Science – (Deans Rep), Ph.D. - 2018
- Jerry Seward – Environmental Sciences, Ph.D. – 2017
- Charles D. Lofton – Civil and Environmental Engineering – (Dean's rep), Ph.D. - 2017
- Manuel Esguerra – Plant, Environmental and Soil Sciences (Deans Rep.), Ph.D. - 2017
- Scott Allen – Renewable Natural Resources, Ph.D. (Deans Rep.) - 2016
- Beth Poganski - Mississippi State University, Ph.D. – Forest Resources – 2016
- Bart Van den Berg, Basic Sciences, Ph.D. - Vet School, MSU – 2009
- Jay Overmeyer, University of Georgia, Entomology, Ph.D. - 2002.

GRANTS RECEIVED

Water Research Foundation. 6/1/2021-5/31/2024. **$ 244,188.** (KLA Portion). *Develop Standard Operating Procedures for the Collection, Storage, and Extraction of Aqueous Samples for IVB screening.* PI

National Oceanic and Atmospheric Administration (NOAA) – 2/19/2021 – 3/31/2021. **$ 57,368** (KLA portion). *Technical Support Services for Assessment of Chemical Hazards Associated with Oil and Hazardous Material Releases TO2.* PI

US Department of Agriculture (USDA) Foreign Agriculture Services (FAS) – 9/1/20 – 9/1/2023. **$ 813,000** (KLA/LSU Portion - $64,617). *Building Regulatory Capacity through Research, Education and Communication.* Co-PI.

National Oceanic and Atmospheric Administration (NOAA) – 7/9/2020 – 7/8/2025. **$767,160** (KLA portion). *Technical Support Services for Assessment of Chemical Hazards Associated with Oil and Hazardous Material Releases TO1*. PI

National Science Foundation-National Science Foundation China – 8/1/2019 - 7/31/2023. **$ $499,577** (KLA portion $155,420) *Synergistic Effects of Energy Consumption and Ocean Environmental Changes on Global Seafood Productions*. Co-PI

US EPA Science to Achieve Results (STAR) - 08/01/19 – 07/31/22. **$ 849,988.** *Development of in-vitro assays that are predictive of developmental toxicity in a euryhaline fish model.* ($269,647 KLA LSU Portion) Co-PI.

Nuclear Regulatory Commission – 2016 – 2019. **$ 750,000**. *LSU Faculty Development Program in Health Physics.* Co- Principal Investigator.

US Environmental Protection Agency – 2016 - 2018. **$ 2,000,000.** *LSU-LSU Health Sciences Center Partnership for Undergraduate, Graduate, and Postdoctoral Mentored Environmental Health Sciences Research.* Co-Principal Investigator (Note: Awarded but terminated before start due to lack of available federal funds).

US Food and Drug Administration – 2012 – 2017. **$ 1,447,102.** *Mississippi State Chemical Laboratory for MFRPS Lab Accreditation.* Laboratory Director

Gulf of Mexico Research Initiative - 2012 – 2015. **$ 1,122,299**. *Characterizing the Composition and Biogeochemical Behavior of Dispersants and Their Transformation Products in Gulf of Mexico Coastal Ecosystems.* Principal Investigator

US Food and Drug Administration – 2011-2012. **$ 128,500.** *Mississippi State Chemical Laboratory Accreditation under Standard 10 of the Manufactured Food Regulatory Program Standards (MFRPS).* Laboratory Director.

National Science Foundation (NSF) Gulf Oil Spill RAPID MRI Grant. 2010. $**189,491.** *Acquisition of a Triple Quadrupole Gas Chromatograph-Tandem Mass Spectrometer (GC/MS/MS) and an Accelerated Solvent Extraction (ASE) System for Supporting Monitoring and Biological Research Programs That Target the Ecosystems Affected by the Deep Water Horizon Oil Spill"*. Laboratory Director.

USDA-ARS – 2010-2012. **$ 540,000.** *Evaluating the Prevalence of Microbial Pathogens and Chemical Residues in Catfish Production as Affected by Production Region/characteristic and Season.* Co-PI

Mississippi Department of Environmental Quality. 2009-2014. **$ 600,000.** *Analytical Services for Environmental, Priority Pollutant, Hazardous Constituent, Water Quality, and Waste Samples*. Co-PI and Laboratory Director

USDA-CSREES-AFRI – 2009 – 2012. **$ 398,821**. *The Occurrence and Fate of Sex Hormones and Their Conjugates in Animal Waste and Soil and Aquatic Environments.* Co-Principal Director/Investigator

US Food and Drug Administration. – 2008 – 2010. **$ 496,336**. *Bovine Spongiform Encephalopathy Testing in the Southeastern United States*. Laboratory Director

US Department of the Interior - US Geological Survey – 2008 – 2013. **$ 378,203** *Analysis of Environmental Samples for Organic Contaminants at Trace Levels.* Co-Principal Investigator and Laboratory Director

New York State Department of Environmental Conservation. 2007 – 2012. **$ 1,800,000**. *Chemical Analysis of Biological Tissues and Associated Media.* Principal Investigator.

U.S. Army Corp of Engineers. 2007-2008. **$ 104,000**. *Analysis of Organic Contaminants in Fishes and Sediments Impacted by the Restoration Efforts in the Yazoo River Basin*. Laboratory Director

Mississippi Land Water and Timber Commission. 2006-2007 **$ 421,640**. *Biofuel Production Equipment in the Petroleum Products Division*. Laboratory Director

Department of Resource Management of Solano County, California. 2006. **$ 25,000.** *Occurrence and Fate of Selected Pharmaceuticals and Personal Care Products in Biosolids and Biosolids-Applied Soils in Solano County, California.* Laboratory Director.

Southern California Coastal Water Research Project. 2006 – 2007. **$ 36,000**. *Endocrine Disruption in Coastal Flatfish Proposed Study Plan for Phase* I . Laboratory Director

U.S. Environmental Protection Agency. 2005 - 2007 **$ 29,500**. *Demonstration of New Wastewater Disinfection Technologies, Saltillo, Mississippi.* Co-Principal Investigator. Grant total $193,899.00

Mississippi Water Resources Research Institute. 2003. **$ 45,000**. *Improved Estimation of Nutrient and Pesticide Runoff Losses from Golf Courses and Residential Lawns in the South Atlantic-Gulf Region*. Co-Principal Investigator.

US Golf Association. 2003 – 2005. **$ 90,000**. *Bridging the Gap: Effect of Plot Size and Warm-Season Grass Species on Turf Chemical Runoff.* Co-Principal Investigator.

Mississippi Department of Environmental Quality. 2003 - 2010. **$ 121,646**. *Environmental Monitoring of Hazardous Waste, Priority Pollutants and Water Quality.* Principal Investigator. Note: The above value is one year only, this contract is renewed annually.

US Fish and Wildlife Service. 2002 – 2007. **$ 2,500,000**. *Residue Analysis of Organic Contaminants*. Principal Investigator.

New York State Department of Environmental Conservation. 2000 – 2006. **$ 2,004,160**. *Chemical Analysis of Biological Tissues and Associated Media.* Principal Investigator. (NOTE: this was in-place before I arrived at Mississippi.).

US EPA STAR (DRINKING WATER): Sept. 2001 – 2004. **$ 522,892**. *The Environmental Occurrence, Fate, and Ecotoxicity of Selective Serotonin Reuptake Inhibitors (SSRIs) in Aquatic Environments*. Principal Investigator. Abstract available at: http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/1755/report/0

Syngenta Agrochemicals. 2001. **$5,000.** *Turf fungicide environmental fate.* Principal Investigator.

Georgia Turfgrass Foundation Trust. 2000. **$5,000**. *Movement of oxadiazon and prodiamine from Turf plots Under Simulated Irrigation/Rainfall.* Principal Investigator

Georgia Golf Course Superintendents Association. 2000 – 2002. **$ 15,000.** *Calibration of Computer Models for Pesticide Runoff from Turf.* Principal Investigator.

Golf Course Superintendents Association of America. 2000 – 2002. **$ 15,000.** *Calibration of Computer Models for Pesticide Runoff from Turf.* Principal Investigator.

US Golf Association. 2000 – 2002. **$ 75,000**. *Calibration of Computer Models for Pesticide Runoff from Turf.* Principal Investigator.

US EPA STAR (WATER AND WATERSHEDS): 2000 – 2002 **$ 893,849**. *The Impact of Lawn Care Practices on Aquatic EcoSystems in Suburban Watersheds.* Principal Investigator abstract available at http://es.epa.gov/ncerqa_abstracts/grants/99/waterwatershed/armburst99.html

Georgia Dept. of Natural Resources. (EPA 319 Grant) 1999 – 2001 **$ 312,000** *Pesticide Monitoring in Sediments.* Co-Principal Investigator

Dow Agrochemicals. 1999 – 2000. **$10,000**. *Residues of Picloram and Dicamba in Bermuda Grass Hay.* Co-Principal Investigator

Georgia Turfgrass Foundation Trust. 1999 **$ 4,000** *Measurement of Quinclorac and MSMA via Fairway Runoff.* Principal Investigator

Georgia Turfgrass Foundation Trust. 1999 **$ 5,000** *Screening Metro Atlanta Streams for Turf Pesticides*. Principal Investigator

USDA/CSREES (Hatch Project). 1999 – 2004. **$ 420,000.** *Pesticide Dissipation in Suburban Watersheds.* Principal Investigator.

SELECTED ADMINISTRATIVE ACCOMPLISHMENTS
As Chair, Department of Environmental Sciences-LSU (6.0 years)

- In 2020/21, successfully recruited an EPA post-doc to fill an aquatic toxicologist assistant professor position (Doering).
- In the fall of 2018, initiated program to bring the departmental professional MS online with online course offerings and three stackable certificates to complement this program by August of 2019. One year after launch, the online MS had 25 enrolled students and online courses have generated over $100,000 in revenue to the department.
- In 2017 successfully recruited an EPA post-doc for a spatial ecologist in ENVS (de Jesus Crespo). Her acceptance of the position allowing the college Dean to obtain an additional position for her spouse (Douthat) resulting in two faculty positions in the department.
- In 2016 worked with the Dept. of Physics and Astronomy to successfully obtain a faculty development grant from the Nuclear Regulatory Commission. This resulted in a faculty hire (Kim) in the department in 2017 whose salary was paid by the grant for the first three years.

- Actively promoted the development of a 3+3 program between CES and the LSU Law School resulting in students matriculating after 6 years with a BS in Coastal Environmental Science and a JD in Law.
- Promoted restarting a stalled 3+2 program between LSU and the Health Sciences Center in New Orleans that would allow a student to matriculate with a BS in Coastal Environmental Science and a Masters of Public Health after 5 years.
- Promoted the expansion of a dual enrollment program for the *Introduction to Environmental Science* (ENVS 1126) course to 4 additional high schools within the Baton Rouge area, with plans for further expansion in coming years.
- Established a new minor in Environmental Toxicology with the intent of resulting in additional enrollment in Environmental Sciences courses.
- Advertised, hired and interviewed a new Assistant to the Chair and new Undergraduate Coordinator to replace those lost to retirements.
- In 2015 successfully advertised and hired a new assistant professor (B. Snyder).
- One successful promotion of an assistant professor to associate and two from associate to full professor
- Established formal mentoring committees for all assistant and associate professors.
- Initiated the development of a new strategic plan for the department to replace one that was last developed in 2009.

As State Chemist of Mississippi (11 years)

- In fall of 2010, authored letter to the Commissioner of the FDA on behalf of the Association of Food and Drug Officials (AFDO) and Association of Feed Control Officials (AAFCO) requesting organizational changes that would elevate the voice and importance of the states within the agency. Spearheaded the acceptance of the letter by the boards of both associations. This letter was a major factor impacting organizational changes in the agency approximately 7 months later in the summer of 2011.
- In June 2010, authored resolutions for the Association of Food and Drug Officials (AFDO) to FDA for the acceptance of state laboratory methods and data for seafood safety in response to the gulf oil spill and spearheaded its acceptance and adoption by committees and the board of directors. This resolution resulted in increased collaboration between FDA and state laboratory staff responding to the spill.
- Initiated the MSCL fellows program to formalize the process for faculty to work with the State Agency and conduct interdisciplinary and collaborative research impacting the regulatory sciences as well as state and national policy.
- Changed the Mississippi state statute governing the laboratory to rectify antiquated language and to allow flexibility in practices concerning the administration of staff and fee structure for rendered services. Worked closely with key state legislators to introduce the legislative changes and pass it through the state house and senate.
- Worked with Legislature to increase appropriated funding from ca. 1.1 million to 1.7 million over a period of 7 years. Enlisted the assistance of key stakeholder groups (Delta Council, Farm Bureau Commodity Groups) in the state.
- Worked with HRM to evaluate salaries of MSCL staff with those of equivalent positions in the University. This effort resulted in successfully adjustment of staff salaries by approximately 15-20 % to equivalent positions on campus, allowing the MSCL to offer competitive salaries to new hires without breaking internal salary structure.
- Reorganized the MSCL to a matrixed, competency-based system. Created the position of Director of Advanced Instrumentation that cross-cuts workflow positions. This has allowed the efficient use of instrument resources across divisions and cost savings through consistent maintenance programs, bulk purchase of software updates and common parts for repairs.

- Diversified federal and state fee-for-service contracts and sponsored research efforts to research grants (e.g. USDA-AFRI), resulting in increased sponsored research support by approximately 40 % (~500 K/year to 800 K/year).
- Secured extramural state funding (0.5 MM) through the State Land Water and Timber Commission to purchase equipment for the testing of biodiesel and ethanol blended fuels in the state. Initiated and implemented regulatory testing programs.
- Successfully recruited and hired a new director of research and a director of petroleum products to replace individuals retiring from each of these positions.
- Worked closely with the MDAC to revise legislation governing the regulation of agricultural limes and gasoline. Drafted and established specifications for the regulation of biodiesel and ethanol blended fuels in Mississippi.
- Worked with MDAC and MDEQ to modernize the list of analytes for the state's Agricultural Groundwater Monitoring Program.
- Met with stakeholders in farm bureau, rice and soybean commodity groups, developed and implemented plans to provide rapid analysis of agricultural spray drift crop samples in support of enforcement investigations.
- With impending fuel shortages from hurricanes Ike and Gustav in 2008, issued emergency waiver of summer fuel vapor pressure specifications to allow the early sale winter blended fuels. Waiver issued jointly with the Commissioner of Agriculture and Commerce.
- Merged the operations of IAS and Chemical Regulatory Divisions, respectively, under the directors of research and Petroleum Products. This effectively eliminated the need to hire directors of these divisions to replace those retiring. Impact: Increased efficiency in the use of personnel across the organization and realized cost savings from positions that were not necessary to backfill.
- Conducted analysis of IAS operations to insure that prices charged for services were revenue neutral to slightly profitable. Prices were increased as appropriate.
- Purchased new laboratory information management system (LIMS) to eliminate paperwork, the need for an "in-house" computer programmer, and allow customers to order lab requests and view reports online.
- Implemented employee cross-training so that critical laboratory functions could be performed by multiple individuals.

PROFESSIONAL AFFILIATIONS

American Chemical Society (ACS) – Divisions of Agrochemicals (AGRO) and Environmental Chemistry (ENVR).
Association of Analytical Communities (AOAC)
Association of Public Health Laboratories (APHL)
Society of Environmental Toxicology and Chemistry (SETAC)
Association of Food and Drug Officials (AFDO)
Association of American Feed Control Officials (AAFCO)
Association of American Plant Food Control Officials (AAPFCO)
Association of American Pesticide Control Officials (AAPCO)
American Oil Chemists Society (AOCS)
USDA Western Regional Multistate Project: *Agrochemical Impacts on Human and Environmental Health: Mechanisms and Mitigation* (USDA NIFA Multi-State Project W4045). Project lead since 2018.

AWARDS, HONORS, AND PROFESSIONAL SERVICE OFFICES HELD
Associate Member (appointed) – Committee on Science (COMSCI) – American Chemical Society – 2022-2023.

Panelist - East San Joaquin (ESJ) Surface Water Quality Monitoring Expert Review Panel (2019-2020)
Co-Director – Center of Excellence in Regulatory Science in Agriculture (CERSA) – (2018-present)
US FDA Food Advisory Committee (2013 – 2017) – Appointed.
Fellow-Division of Agrochemicals, American Chemical Society (Inducted 2016)
Editorial Board Member (appointed). *Agricultural Science and Technology* (2020 – present).
Editorial Advisory Board Member (appointed). *Journal of Agricultural and Food Chemistry* (2012 – present).
Alternate Councilor (Elected) - Division of Agrochemicals, American Chemical Society (2012 – 2014;2015-2017;2018-2020;2021-2023).
Elected Chair-USDA Western Regional Research Group W1045 (2008 – 2009, 2017-21).
Multidisciplinary Program Planning Group (MPPG) – American Chemical Society (2009- 2014, 2018)
President Elect - Association of American Feed Control Officials – AAFCO. (2011)
Elected Chair, Division of Agrochemicals, American Chemical Society. (2009 – 2010)
Program Chair, Division of Agrochemicals, American Chemical Society. (2008 – 2009)
Vice-Chair, Division of Agrochemicals, American Chemical Society. (2007 – 2008)
Association of American Feed Control Officials Board of Directors (2007 – 2010).
AAFCO Board Liaison to the Association of Food and Drug Officials (AFDO) Board of Directors (2007 – 2013).
Co-Chairman, Feed Contaminants Committee, American Association of Feed Control Officials (AAFCO) (2009 - 2011).
State FIFRA Research and Evaluation Group (SFIREG) Environmental Quality Issues Working Committee Member (2006 – 2009) Ad-hoc committee member to 2013.
First-Place Poster Award Winner – 2006 USEPA Science Forum.
Secretary- USDA Western Regional Research Group W1045 (2006 – 2007).
State FIFRA Research and Evaluation Group (SFIREG) AAPCO Lab Committee Liaison (2005 – 2013).
Commissioned Officer U.S Food and Drug Administration (2002 – 2017)
Chairman, Peer Review panel for EPA's 2006 Report on the Environment: Land Chemicals Indicators (2005).
Peer-review panelist – USEPA STAR grant and fellowship (both STAR and GRO) programs (1-2 panels/yr since 1999).
State of Mississippi Plant Advisory Board (2002 – 2013)
State of Mississippi Fish Advisory Board (2002 – 2013)
State of Mississippi Veterinary Diagnostic Laboratory Advisory Board (2002 – 2013).
Executive Committee, Division of Agrochemicals, American Chemical Society (2003 – 2006)
Chair (1999 – 2006).
Board of Directors, Georgia Turfgrass Association (1998-2002)
1995 - DuPont Agricultural Products Accomplishment Award for Outstanding Conduct and Support of Methomyl Aquatic Dissipation Studies
1991 - Donald Crosby Graduate Fellowship
1991 - Jastro-Shields Graduate Research Scholarship - $2500
1990 - Jastro-Shields Graduate Research Scholarship - $1500
1989 - ICI America Fellowship

INVITED PRESENTATION OR TESTIMONY BEFORE GOVERNMENTAL GROUPS AND NATIONAL ASSOCIATIONS

Texas A&M University - Corpus Christi Wes Tunnel Distinguished Lecture Series. (**March 11, 2022**). *Fate and Effects of Contaminants in Marine Ecosystems*.
American Chemical Society Division of Agrochemicals (AGRO) Webinar. (**February 18, 2020**). *Cannabinoid Chemistry and the Practical Challenges of Growing Hemp*.
National Atmospheric and Oceanic Administration, Seattle, WA. **(June 17-20, 2019**). *Environmental Fate and Effects of Chemical Releases.* Science of Chemical Releases (Co-Instructor)

US Environmental Protection Agency – Gulf Breeze Laboratory (Gulf Ecology Division) (**September 2017**): *Assessing Chemical Persistence, Fate and Toxicity in Coastal and Estuarine Marine Ecosystems.*

Association of Food and Drug Officials panelist **(June 2017**). Topic: *Cannabis: New Horizons in Food and Drug Regulations.*

Bodega Marine Laboratory (**July 2016**): Topic: *The Fate of Pesticides and Other Contaminants in Marine Ecosystems.*

Georgia Environmental Health Association: (**June 2016**) Topic: *Arsenic in Food and the Environment: History, Sources and Perspectives*.

US Department of Agriculture (**Dec. 2015**): Topic: *Arsenic in Food and the Environment: History, Sources and Perspectives.*

Association of Food and Drug Officials of Southern States (AFDOSS) Fall Meeting (**Sept. 2015**). Topic: *The Gulf Oil Spill: 5 years later.*

Fort Johnson Seminar Series (**February 2015**), Charleston, SC. *Topic: New Processes to Evaluate the Fate of Contaminants in Marine Ecosystems.*

Association of Food and Drug Officials of Southern States (AFDOSS) Fall Meeting (**Sept. 2014**). Topic: *Arsenic in Food and the Environment: History, Sources and Perspectives.*

Society of Environmental Toxicology and Chemistry. Gulf Oil Spill Focused Topic Meeting **(April 2011).** Invited Panelist Representing the Gulf Coast States: Topic: *The Mississippi State Chemist's Office Perspective on the Response to the Gulf Oil Spill.*

Association of Food and Drug Officials of Southern States (AFDOSS) Fall Meeting (**Sept. 2010**). Topic: *Risk Assessment used in the Development of the Reopening Protocol for Gulf Waters Following the Oil Spill from the Deep Water Horizon Disaster.*

Association of Food and Drug Officials Annual Meeting **(June, 2010)**. Invited Panelist representing gulf coast states. Topic*: Federal and State Response to assess seafood safety following the Deepwater Horizon Disaster.*

American Association of Feed Control Officials (AAFCO), Administrative Seminar (**April, 2010**). Topic: *Congressional legislation impacting accreditation of state laboratories.*

U.S. Environmental Protection Agency, PREP Course. (**April, 2010**) Davis, CA. Topic: *The Food Safety Enhancement Act and Implications for FIFRA laboratories.*

Southeastern Feed, Fertilizer and Pesticide Control Officials. **(June, 2008).** New Orleans, LA. Topic: *Activities of the AAFCO Board of Directors.*

U.S. Environmental Protection Agency, PREP Course. (**May, 2007**) Las Cruses, New Mexico. Topic: *High Visibility Incidents and Laboratory Coordination.*

San Francisco Estuarine Institute (SFEI). (**May, 2007**). Oakland, CA. Topic: *Research in the State Chemical Laboratory of Mississippi.*

Baylor University (**February, 2007**). Topic: *Developments with Biodiesel and Biosolids.*

US Environmental Protection Agency Science Forum **(May 2006).** Washington DC. Topic: *Exposure Assessment of Contaminants Associated with Reclaimed Water and Biosolids.*

Southern California Coastal Water Research Project (SCCWRP). **(Jan 2006)**. Los Angeles, CA. *Topic: Occurrence, Environmental Fate and Exposure Assessment of SSRI's in Aquatic Environments.*

Responsible Industries for a Sound Environment (RISE) **(Oct 2005)**, Arlington, VA. *Topic: Integrated Science Approaches to Investigate Suburban Watersheds*

US EPA/Office of Research and Development and Office of Water. **(Aug 2005)**. Las Vegas, Nevada. *Topic: Occurrence, Environmental Fate and Exposure Assessment of Selective Serotonin Reuptake Inhibitors (SSRIs) in Aquatic Environments*

San Francisco Estuarine Institute (SFEI)**. (Mar 2005).** Oakland, California. *Topic: Research within the State Chemical Laboratory of Mississippi and Occurrence and Fate of Chemicals in the Marine Environment.*

National Oceanic and Atmospheric Administration (NOAA). **(Jan 2005).** Charleston, SC. *Topic: Fate of Pesticides and Pharmaceuticals in Seawater.*

US EPA/Office of Research and Development and Office of Water. **(2004)** Washington, DC. *Topic: Delayed Development of Aquatic Organisms Exposed to Fluoxetine.*

Southeastern Feed, Fertilizer and Pesticide Control Officials. **(2004).** Nashville, TN. *Topic: Pesticides in Residential Neighborhoods.*

Southeastern Feed, Fertilizer and Pesticide Control Officials. **(2004).** Nashville, TN. *Topic: Pesticide Use and Runoff From Golf Courses.*

US EPA/Office of Pesticide Programs (OPP) Special Review and Reregistration Division. **(2003)** Washington, DC. *Topic: Occurrence and Environmental Fate of Organic Molecules in Suburban Watersheds.*

US EPA/Office of Pesticide Programs(OPP) Exposure Modeling Working Group. **(2002)** Washington DC. *Topic: Field Data Development for Turf Exposure Model Calibrations*

US EPA/ Office of Pesticide Programs (OPP) DWARA Working Group **(2001)** Washington DC *Topic: Pesticide Exposure Assessment in Residential Areas.*

US EPA/ Office of Pesticide Programs (OPP) Water Quality Tech Team. **(2001)** Washington DC *Topic: Impact of Lawn Care Practices from Golf Courses and Residential Lawns.*

US EPA/Office of Research and Development. **(2001)** Washington DC *Topic: Impact of Lawn Care Practices on Aquatic Ecosystems in Suburban Watersheds: Examples of Project Integration and Resource Leveraging to Serve Multiple EPA Missions.*

U.S.EPA Region 4. **(2000)** Atlanta, Georgia *Topic: Lawn Care Impacts in Urban/Suburban Watersheds.*

USDA/CSREES Day on the Green. **(2000)** Washington DC. *Topic: Impact of Lawn Care Practices on Aquatic Ecosystems in Suburban Watersheds.*

Peachtree City Planning Commission. **(2000)** Peachtree City, Georgia. *Topic: Urban and Suburban Non-Point Source Pollution.*

Georgia Department of Natural Resources Board of Directors. **(2000)** Atlanta, Georgia *Topic: Urban Non-Point Source Pollution.*

Attended the Georgia Agribusiness Council's Annual Legislative visit to Washington DC as a representative of the Georgia Turf Grass Association and as a Food Quality Protection Act (FQPA) expert. **(1999)**

Ecological Assessment Working Group of the Japanese Ministry of Agriculture, Food and Fisheries. **(1998)** Tokyo, Japan. *Topic: The Use of PRZM3 and Other Environmental Fate Models For Regulatory Exposure Assessment*

SYMPOSIA ORGANIZED/CHAIRED AT NATIONAL ASSOCIATION MEETINGS (since 2011)

2022 – *Occurrence and Fate of Pesticides in Surface Waters.* In the Division of Environmental Chemistry at the 262nd meeting of the American Chemical Society. San Diego, March 20-24th, 2022.

2021 – *Cannabis analysis and regulatory challenges.* North American Chemical Residue Workshop. Ft. Lauderdale, Fl. July 25-28, 2021.

2017 – *Analytical, Environmental and Regulatory Challenges with Legalized Cannabis* in the Division of Agrochemicals at the 254th meeting of the American Chemical Society. Washington, DC August 20- 24.

2017 – *Annual Meeting of the USDA Western Regional Research Project W3045: Agrochemical Impacts on Human and Environmental Health.* Host at LSU in Baton Rouge, LA. June 6-8 2017.

2017 - *Contaminants in Coastal and Estuarine Ecosystems* in the Division of Environmental Chemistry at the 253rd meeting of the American Chemical Society. San Francisco, April 2-6.

2016 – *Cannabis and Agrochemicals: Analytical, Environmental and Regulatory Challenges* in the Division of Agrochemicals at the 252rd meeting of the American Chemical Society. Philadelphia, PA August 21- 25.

2015 –*Environmental Fate, Management and Mitigation of N in Agricultural Systems* in the Division of Agrochemicals at the 250th meeting of the American Chemical Society. Boston, MA August 16 - 20.
2014 – *13th IUPAC International Congress of Pesticide Chemistry*. Organizing Committee. August 10 – 14th. San Francisco, CA.
2012 – *Perfecting Communication of Chemical Risk* in the Division of Agrochemicals at the 244th meeting of the American Chemical Society. Philadelphia, PA August 19 - 23.
2011 – *Analytical Challenges for Crop Protection Products* in the Division of Agrochemicals at the 242nd meeting of the American Chemical Society. Denver, CO August 28 – Sept. 1.
2010 – *Emerging Contaminants in California Coastal and Estuarine Ecosystems* in the Division of Agrochemicals, American Chemical Society, San Francisco, March 21st-25th.
2009 – *Analytical Challenges Associated with New Pesticide Classes* in the in the Division of Agrochemicals, American Chemical Society. Washington, DC. Aug 16-20
2009 – *Catfish Aquaculture: Producing a Safe, Delicious and Nutritious Food for Consumers* in the Division of Agrochemicals, American Chemical Society, Washington, DC. Aug 16-20.
2008 – *Environmental Impacts of Bioenergy* at the Latin American Federation of Chemical Associations (FLAQ) – July, Puerto Rico.
2008 – *New Developments and Classes in Agrochemical Sciences* in the Division of Agrochemicals, American Chemical Society. Philadelphia, PA. Aug 17-21

PUBLICATION LIST

Technical Reports

Armbrust, K., J. Constantino, J. Hunt, C. Menzie, and D. Parker. (2021). *Findings and Recommendations of the Expert Review Panel for the East San Joaquin Surface Water Monitoring Program*. Southern California Coastal Water Research Project (SCWRRP) Technical Report #1153. 44 pages

K. Soloman **K. Armbrust,** R. Brain, W. Chen, N. Galic, L. Ghebremichael, J. Giddings, M. Hanson, J. Maul, G. Smith, P.N., and Van Der Kraak. (2020). *Perspective on the Assessment of Risk to Listed Species from the Use of Atrazine in the USA*. Syngenta Technical Report # TK0406367. 220 pages

DuPont Technical Reports

1992-1998. Responsible for the generation of 25 reports submitted to regulatory authorities in the US, Europe and Japan in support of pesticide registration and reregistration.

Chapters in Books:

Armbrust, K.L. (contributing author*)* (1998). *Sulfonylurea: Bensulfuron methyl* IN Metabolic Pathways of Agrochemicals: Sulfonylureas. H.M. Brown, G. Gaddamidi, and P.W. Lee eds. T.R. Roberts, editor and chief. The Royal Society of Chemistry, Cambridge, U.K. pp. 485-491.

Journal Articles

Hutton, S.J. , S. St. Romain, E. Pedersen, S. Siddiqui, P. Chappell, J. White, **K. Armbrust** and S. Brander. (2021). *Salinity Alters Toxicity of Commonly Used Pesticides in a Model Euryhaline Fish Species (Menidia beryllina).* Toxics. 9(5):114

Smith, P.N., **K. Armbrust,** R. Brain, W. Chen, N. Galic, L. Ghebremichael, J. Giddings, M. Hanson, J. Maul, G. Van Der Kraak, and K. Soloman. (2021). *Assessment of Risks to Listed Species from the Use of Atrazine in the USA*. Journal of Toxicology and Environmental Health, Part B: Critical Reviews. (July:1). https://doi.org/10.1080/10937404.10932021.11902890

Estes, T. and **K. Armbrust**. (2021). Development of a New Method for Estimating Runoff Curve Numbers. Pest Management Science. (submitted).

Xu, W. E. Vebrosky, **K. Armbrust**. (2020). *Potential Toxic Effects of 4-OH-Chlorothalonil Degradation Product on Human Skin Health.* Journal of Hazardous Materials. 394:122575. https://doi.org/10.1016/j.jhazmat.2020.122575

A. Fairbrother, D. Muir, K. Soloman, G. Ankley, M. Rudd, A. Boxall, W. Adams, J. Apell, **K. Armbrust**, et al (30+ authors). (2019). *Towards Sustainable Environmental Quality: Priority Research Questions for North America.* Environmental Toxicology and Chemistry. 38(8):1606-1624

Vebrosky, E.; L.M. Basirico and **K. Armbrust**. (2019). *Degradation of Dicloran in Irradiated Water-Sediment Systems*. Journal of Agricultural and Food Chemistry. 67(27):7609-7615.

Xu, W.; E. Vebrosky, and **K. Armbrust** (2018). *Potential Risk of Human Skin with an Exposure to Dicloran Photodegradation Products in Water.* Environment International 121:861-870 .

Xu, W.; E. Vebrosky, M. Richards and **K. Armbrust** (2018). *Evaluation of Dicloran Phototoxicity using primary cardiomyocyte culture from Crassostrea virginica.* Science of the Total Environment 628-629:1-10.

Vebrosky, E.; Saranjampour, P; D.G. Crosby and **K. Armbrust**. (2018). *Photodegradation of Dicloran in Freshwater and Seawater*. Journal of Agricultural and Food Chemistry. 66(11):2654-2659.

Saranjampour, P; E. **K. Armbrust**. (2018). *Repeatability of n-octanol/water partition coefficient values between liquid chromatography measurement methods*. Environmental Science and Pollution Research 25:15111-15119.

Saranjampour, P; E. Vebrosky and **K. Armbrust**. (2017). *Salinity impacts on water solubility and n-octanol/water partition coefficients of selected pesticides and oil constituents*. Environmental Toxicology and Chemistry 36(9): 2274-2280.

Sarajampour, P., **K. Armbrust** and BD. Marx. (2017). *Assessing the hydroxyl radical and volatilization roles in the aquatic fate of polycyclic aromatic sulfur-containing hydrocarbons*. Environmental Toxicology and Chemistry 36(8):1998-2004.

Goff, A., P. Sarajampour, M. Hladik, **K. Armbrust**, and S. Brander. (2017). *The effects of fipronil and its photodegradate fipronil desulfinyl on growth and gene expression in juvenile blue crabs, Callinectes sapidus, at different salinities.* Aquatic Toxicology 186:96-104.

Bowling, J.J., J. Anderson, **K. Armbrust,** and M. Harmon. (2014). *Evaluation of potential biodiesel feedstock production from oleaginous insect Solenopsis sp.* Fuel 117:5-7.

Armbrust, K. , M. Burns, A Crossan, D. Fischhoff, L. Hammond, J. Johnston, I. Kennedy, M. Rose, J. Seiber and K. Solomon. (2013) *Perspectives on Communicating Risks of Chemicals.* Journal of Agricultural and Food Chemistry 61(20):4676-4691.

Gunatilake, S; S. Craver, J. Kwon, K. Xia, **K. Armbrust**, J. Rodriguez and T. Mlsna. (2013*). Analysis of Estrogens in Wastewater Using Solid-Phase Extraction, QuEChERS cleanup, and Liquid Chromatography/Tandem Mass Spectrometry.* Journal of AOAC International 96(6):1440-1447.

Maruya, K, D. Vidal; S. Bay, J. Kwon, K. Xia, and **K. Armbrust**. (2012). *Organic Contaminants of Emerging Concern in Sediments and Flatfish Collected Near Outfalls Discharging Treated Wastewater Effluent to the Southern California Bight.* Environmental Toxicology and Chemistry 31(12): 2683-2688.

K. Xia, G. Hagood, C. Childers, J. Atkins, B. Rogers, L. Ware, **K. Armbrust**, J. Jewell, D. Diaz, N. Gatian, and H. Folmer. (2012). *Polycyclic Aromatic Hydrocarbons (PAHs) in Mississippi Seafood from Areas Affected by the Deepwater Horizon Oil Spill.* Environmental Science and Technology 46:5310 – 5318. DOI: 10.1021/es2042433.

McDaniel, A., Sparks, D.L., Holmes, W.E., Williams, W.P., **K. Armbrust,** Brown, A.E. (2011) *Effect of Matrix Clean-up Techniques for Aflatoxin Analysis in Corn and Dried Distillers Grains*. Natural Resources 2:250-257.

J. Kwon, **K. L. Armbrust**, and K. Xia. (2010). *Transformation of Triclosan and Triclocarban in Soils and Biosolids-applied Soils.* Journal of Environmental Quality. 39:1139-1144.

K. Xia, J. Atkins, C. Foster and **K. Armbrust**. (2010). *Analysis of Cyromazine in Poultry Feed Using the QuEChERS Method Coupled with LC-MS/MS.* Journal of Agricultural and Food Chemistry 58(10):5945-5949.

J. Overmyer, K. Kellock, P. Smith, **K. Armbrust** and J. Kwon. (2010) *Assessment of the toxicological interaction of sertraline with cholinesterase inhibiting insecticides in aquatic insects using the black fly, Simulium vittatum IS-7.* Environmental Toxicology 25(1):28-37

K. Xia, L. Hundal, K. Kumar, **K. Armbrust**, A. Cox and T. Granato. (2010). *Occurrence of TCC, TCS, PBDEs and 4-NP in Biosolids and their levels in soil after 33 years of biosolids application*. Environmental Toxicology and Chemistry 29(3):597-605.

D. Conners, E. Rogers, **K. Armbrust**, J. Kwon and M. Black. (2009) *Growth and Development of Tadpoles (Xenopus laevis) exposed to selective serotonin reuptake inhibitors, fluoxetine and sertraline, throughout metamorphosis.* Environmental Toxicology and Chemistry 28(12):2671-2676.

J. Kwon, **K. L. Armbrust**, D. Vidal-Dorsch, S.M. Bay, K. Xia. (2009) *Determination of 17α-ethynylestradiol, carbamazepine, diazepham, simvastatin, and oxybenzone in fish livers.* Journal of AOAC International 92 (1): 359-370.

J. Kwon and **K.L. Armbrust**. (2008). *Aqueous solubility, n-octanol-water partition coefficient, and sorption of five selective serotonin reuptake inhibitors*. Bulletin of Environmental Contamination & Toxicology. 81(2):128-135.

K. Xia, M. Luo, C. Lusk, **K.L. Armbrust**, L. Skinner and R. Sloan, and. (2008) *Polybrominated diphenyl ethers (PBDEs) in biota representing different trophic levels of the Hudson River, New York: from 1999 to 2005*. Environmental Science and Technology. 42:4331-4337.

Paraschivescu, M.C., E.G. Alley, W.T. French, R. Hernandez, and **K.L. Armbrust**. (2008) *Determination of methanol in biodiesel by headspace solid-phase microextraction.* Bioresource Technology. 99:5901-5905.

J. Kwon and **K.L. Armbrust.** (2006). *Persistence and Fate of Fluoxetine in Aquatic Environments*. Environmental Toxicology and Chemistry. 25(10):2561-2568.

J. Kwon and **K.L. Armbrust.** (2006) *Degradation of Chlorothalonil in Irradiated Water-Sediment Systems*. Journal of Agricultural and Food Chemistry. 54(10):3651-3657.

Avila, L.A., J.H. Massey, S.A. Senseman, **K.L. Armbrust**, S.R. Lancaster, G.N. McCauley, and J.M. Chandler. (2006) *Quantum Yield and Aqueous Hydroxyl Radical Rate Constant of Imazethapyr Herbicide.* Journal of Agricultural and Food Chemistry. *54*(7) pp 2635 - 2639.

Overmyer,J.P., B.N. Mason, **K.L. Armbrust**. (2005) *Acute Toxicity of Imidacloprid and Fipronil to a Non-Target Aquatic Insect, Simulium vittatum IS-7.* Bulletin of Env Contamin and Tox. 78:872-879.

Overmyer J.P., R Noblet, **K.L. Armbrust**. (2005) *Impacts of Lawn-care pesticides on aquatic ecosystems in suburban streams in relation to property value*. Environmental Pollution. 137:263-272.

J. Kwon and **K.L. Armbrust.** (2005) *Degradation of citalopram by simulated sunlight.* Environmental Toxicology and Chemistry 24(7):1618-1623.

J. Kwon and **K.L. Armbrust**. (2005) *Photoisomerization of Fluvoxamine in Aqueous Solution*. Journal of Pharmaceutical and Biomedical Analysis. 37:643-648.

Brewer, B.N., **K.L. Armbrust**, K.T. Mead, and W. E. Holmes. (2004). *Determination of Abamectin in Soil Samples using High-Performance Liquid Chromatography with Tandem Mass Spectrometry*. Rapid Communications in Mass Spectrometry. 18:1693-1696.

Henry TB, Kwon J-W, **Armbrust K.L.**, Black MC. (2004). *Acute and chronic toxicity of five selective serotonin reuptake inhibitors to Ceriodaphnia dubia*. Environmental Toxicology and Chemistry 23(9):2229-2233.

J. Kwon and **K.L. Armbrust.** (2004*) Hydrolysis and Photolysis of Paroxetine in aqueous solution*. Environmental Toxicology and Chemistry 23(6): 1394-1399.

Kwon, J.W., **K. L. Armbrust** and T. Grey. (2004*). Hydrolysis and Photolysis of Flumioxazin*. J. Pest Management Science. 60:935-943.

Overmyer, J.P., R. Noblet and **K.L. Armbrust**. (2003). *Susceptibility of Black Fly Larvae (Diptera:Simuliidae) To Lawn-Care Insecticides Individually and as Mixtures"*. Environmental Toxicology and Chem. 22:1582-1588

Armbrust, K.L. and H. Peeler. (2002). *Effects of Formulation on the Runoff of Imidacloprid from Turf by Simulated Rainfall*. Pest Management Science 58:702-706.

Armbrust, K.L. and D.C Bridges (2002). *The Dissipation of MSMA Applied to Peanuts*. Journal of Agricultural and Food Chemistry 50(7):1959-1963.

Armbrust, K.L. (2001). *Photodegradation of hydroxychlorothalonil in Aqueous Solution*. Environmental Toxicology and Chemistry. 20(12): 2699-2703.

Armbrust, K.L. (2001) *Occurrence of Chlorpyrifos and Chlorothalonil Degradation Products in Lysimiter Leachate from a Golf Course Green*. Pest Management Science. 57: 1-6.

Armbrust, K.L. (2000). *Hydroxyl Radical Rate Constants for Pesticides: Measurements and Estimates of Their Importance to Pesticide Fate in Aquatic Environments*. Environmental Toxicology and Chemistry 19(9):110-117.

Armbrust, K.L., J. Grochulska, A.C. Barefoot, and Y. Okamoto. *(1999) Predicting the Dissipation of Bensulfuron Methyl and Azimsulfuron in Rice Paddies Using the Computer Model EXAMS2.* Journal of Pesticide Science. 24:357-363.

Armbrust, K. L. (1999*). Photochemical Processes Influencing Pesticide Degradation in Rice Paddies.* Journal of Pesticide Science. 24(1):69-73.

Y. Okamoto, R.L. Fisher, **K.L. Armbrust** and C.J. Peter. (1998) *Surface Water Monitoring Survey of Bensulfuron methyl Applied to Rice Fields.* Journal of Pesticide Science. 23(3):235-240.

Armbrust, K.L. and D.G. Crosby. (1991). *The Fate of Carbaryl, 1-Naphthol, and Atrazine in Seawater.* Pacific Science. 45(3):314-319.

Bulletins/Proceedings

Armbrust, K.L., L. Shuman, J. Meyer, M. Black, R. Noblet, A. Keeler, T. Gragson, J.B. Williams, and D. West. (2001). The Impact of Lawn Care Practices on Aquatic Ecosystems in Suburban Watersheds. Proceedings of the 2001 Water and Watersheds Progress Review. San Francisco, CA. April 17-19th, 2001. pp. 3.

Herbert, S., J.L. Meyer, **K. L. Armbrust** and L. Shuman. (2001). Breakdown Rates of Tulip-Poplar Leaves in Streams Draining Suburban Watersheds. Proceedings of the 2001 Georgia Water Resources Conference. Athens, GA. March 26-27, 2001. pp. 733-735.

MacGregor, R.G., J. L Meyer, **K.L. Armbrust** and L. Shuman. (2001) *The Effects of Golf Course Pesticides on Stream Ecosystems.* Proceedings of the 2001 Georgia Water Resources Conference. Athens, GA. March 26-27, 2001. pp. 730-732.

Armbrust, K.L. (1998). Photochemical Processes Influencing Pesticide Degradation in Rice Paddies IN Proceedings of the Pesticide Science Society, Japan, March 27-30th, Matsue Japan. pp 36-37.

Armbrust, K. L. (1998). Update on the Use of Environmental Fate Models for Regulatory Exposure Assessment in the US and EU. Proceedings of the 4th Symposium on Pesticide Regulatory Science. pp 35-37.

Armbrust, K. L. (1992 – 1998). Responsible as Study Director for 25 accepted peer reviewed reports submitted to US, European and Asian regulatory authorities in support of pesticide registration and reregistration.

Barefoot, A.C., **K. Armbrust**, T. Fader, Y. Kato, K. Sato. 1996*. Processes Affecting the Degradation of Azimsulfuron in Rice Paddies* IN The Environmental Fate of Xenobiotics, A.A. Re, et al editors. Proceedings of the 10th Symposium Pesticide Chemistry, 30 Sept.-2 October, 1996. Piacenza, Italy. pp. 97-104.

Published Abstracts

L.M. Basirico, G. Shigenaka, E. Overton, **K. Armbrust**. (2022). *The use of invertebrate organisms to detect petroleum contamination in support of emergency response activities.* To be presented before the 262nd National Meeting of the American Chemical Society, Division of Environmental Chemistry, Sand Diego, CA. March 20-24th

M. Knight, L.M. Basirico, **K. Armbrust**. (2022). *Analysis of the Photodegradation of the Pro-Herbicide Benzobicyclon Hydrolyzate Using a Seawater Gradient and Consitutent Ions.* To be presented before the 262nd National Meeting of the American Chemical Society, Division of Environmental Chemistry, Sand Diego, CA. March 20-24th.

St. Romaine, S., L.M. Basirico, **K. Armbrust**. (2022). *Impact of salinity and individual seawater ions on the hydrolysis of chlorpyrifos.* To be presented before the 262nd National Meeting of the American Chemical Society, Division of Environmental Chemistry, Sand Diego, CA. March 20-24th

McConnell L., J. Tang, G. Watson, C. Ryan, S. Hovinga, D. Seth-Carley and **K. Armbrust**. (2021). *Regulatory Challenges and Opportunities for Collaboration on Innovations in Agriculture.* Presented before the 261st National Meeting of the American Chemical Society, Division of Agrochemicals, Atlanta, GA. August 22-26

Hutton, S.J.; S. St. Romaine, S. Siddiqui, E. Pedersen; A. Segarra; M. Hladik, R. Connon; **K. Armbrust**, and S. Brander. (2021). *Salinity Influences Toxicity and Toxic Effects of Biocides in a Model, Estuarine Fish Species (Menidia beryllina).* Presented before the 31st Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC) Europe. Virtual Meeting. May 2021.

Smith, P.N., **K. Armbrust,** R. Brain, W. Chen, N. Galic, L. Ghebremichael, J. Giddings, M. Hanson, J. Maul, G. Van Der Kraak, and K. Soloman. (2020). *Assessment of Risks to Listed Species from the Use of Atrazine in the USA*. Presented before the 41st Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC) North America. Virtual Meeting. November 2020.

Pederson, E.; C. Markgraf, X. Poole, **K. Armbrust,** P. Chappell, and S. Brander. (2020). *Development of a High-Throughput Method to Test Biocide Toxicity Across a Salinity Gradient in a Euryhaline Fish Model*. Presented before the 41st Annual Meeting of the Society of Environmental Toxicology and Chemistry (SETAC) North America. Virtual Meeting. November 2020.

M. Knight, E.N. Vebrosky, L.M. Basirico, **K. Armbrust**. (2019). *Analysis of photodegradation of benzobicyclon hydrolysate in the presence of relevant sediment and seawater ions.* Presented before the 40th Annual Meeting of the Society of Environmental Toxicology and Chemistry. Toronto, Canada. Nov. 3-7.

M.A. LaNasa, E.N. Vebrosky, **K. Armbrust.** (2019). *Influence of Photolysis on Rice Herbicides in Irradiated Water-Sediment Systems.* Presented before the 40th Annual Meeting of the Society of Environmental Toxicology and Chemistry. Toronto, Canada. Nov. 3-7.

X. Poole, J. Landry, Louisiana State University, M. LaNasa, E.N. Vebrosky, L.M. Basirico, **K.L. Armbrust**. (2019). *Environmental Fate of Benzobicyclon in a Louisiana Rice Field.* Presented before the 40th Annual Meeting of the Society of Environmental Toxicology and Chemistry. Toronto, Canada. Nov. 3-7.

E. Vebrosky, W. Xu, **K. Armbrust.** (2018). *Responses to Hydroxychlorothalonil and Dicloran Exposure by Menidia beryllina in the presence of Varying Salinities and Sunlight*. Presented before the 39th Annual Meeting of the Society of Environmental Toxicology and Chemistry. Sacramento, CA. Nov. 4-8.

E. Vebrosky, L. Basirico, **K. Armbrust**. (2018). *Impacts Sunlight Imposes on Emerging Rice Field Herbicides and Their Chemical Behaviors in the Presence of Sediment.* Presented before the 39th Annual Meeting of the Society of Environmental Toxicology and Chemistry. Sacramento, CA. Nov. 4-8.

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E. Vebrosky, **K. Armbrust,** W. Xu. (2018). *Potential Salinity Enhanced Impacts on the Phototoxicity of Fungicides to Inland Silversides, Menidia beryllina*. Presented before the 38th Annual Meeting of the European Society of Environmental Toxicology and Chemistry. Rome, Italy. May 12-18.

E Vebrosky, W. Xu, L. Basirico, C.G. Lutz, and **K. Armbrust**. (2018). *Potential Toxic and Phototoxic Effects of Benzobicyclon on Crayfish.* Presented before the 38th Annual Meeting of the European Society of Environmental Toxicology and Chemistry. Rome, Italy. May 12-18.

E. Vebrosky, **K. Armbrust,** W. Xu, G. Lutz, and L. Basirico. (2018). *Benefits of Using Ecologically and Economically Valued Invertebrate Species for Ecotoxicological Analyses: Potential Phototoxic Effects Comparing a Freshwater Vertebrate and Invertebrate.* Presented before the 38th Annual Meeting of the European Society of Environmental Toxicology and Chemistry. Rome, Italy. May 12-18.

E. Vebrosky, **K. Armbrust,** W. Xu, G. Lutz, and L. Basirico. (2018). *Phototoxicity of Dicloran to Freshwater and Marine Organisms.* Presented before the 255th National Meeting of the American Chemical Society, Division of Environmental Chemistry, New Orleans, LA. March 18-22nd.

E. Vebrosky, **K. Armbrust,** W. Xu and L. Basirico. (2017). *Phototoxic Effects of Pesticides Including Dicloran to Juvenile Red Swamp Crayfish and Eastern Oysters.* Presented before the 38th Annual Meeting of the Society of Environmental Toxicology and Chemistry. Minneapolis, MN. November 12-16, 2017.

E. Vebrosky, **K. Armbrust** and W. Xu. (2017). *Pesticide Impacts from Louisiana Rice Fields on the Health and Survival of Red Swamp Crayfish.* Presented before the 38th Annual Meeting of the Society of Environmental Toxicology and Chemistry. Minneapolis, MN. November 12-16, 2017.

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