

Admission

LSU SRP recruits and educates graduate and postdoctoral students.

Students can enter the program through:

- ◆ **LSU Chemistry Department**
www.chemistry.lsu.edu
- ◆ **LSU Health Sciences Center in New Orleans**
www.lsuohsc.edu
- ◆ **LSU Health Sciences Center in Shreveport**
www.lsuohscshreveport.edu

For farther information contact:

Robin L. McCarley
Training Core Leader
tunnel@lsu.edu
Tel: (225) 578-3239

Financial support for trainees is provided by the Superfund Research Program and the University.

Career Opportunities

Participants who complete our program are prepared for **careers** in:

- * Academia
- * Environmental agencies
- * Industry
- * Government

SUPERFUND RESEARCH PROGRAM

LOUISIANA STATE UNIVERSITY

For more information about the

Superfund Research Program visit our

website www.srp.lsu.edu

or contact us:

Barry Dellinger
Program Director
barryd@lsu.edu
Tel: (225) 578-6759

LSU-SRP Social Network Sites



www.facebook.com/LSUSRP



lsusrp.wordpress.com



twitter.com/LSUSRP

Superfund Research Program
Louisiana State University
www.srp.lsu.edu
338 Choppin Hall
Baton Rouge, LA 70803



SUPERFUND RESEARCH PROGRAM



Graduate and Postdoctoral Student Opportunities



LSU Superfund Research Program is an interdisciplinary environmental program and brings together researchers from:



Research focuses on:

Redox-active transition metals and organic pollutants associated with **Particulate Matter** that react to form:



Environmentally Persistent Free Radicals (EPFRs)



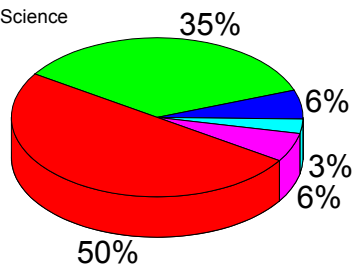
Particulate Matter-associated EPFRs mediate formation of other pollutants



EPFRs initiate oxidative stress resulting in cardiac and pulmonary dysfunction

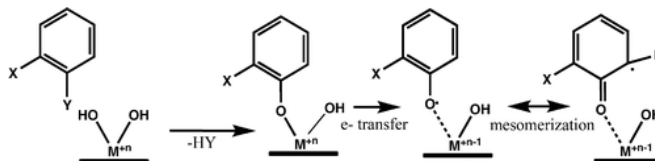
Interdisciplinary Research Team

- Chemistry
- Pharmacology
- Environmental Sciences
- Political Science
- Physics



What are Environmentally Persistent Free Radicals?

- Free radicals formed by reactions between transition metals and organic material (via chemisorption and electron transfer) in combustion and thermal processes.



- EPFRs have a much longer life span than most free radicals and therefore more persistent in the ambient environment.

Research Projects

- Formation and Reactions of Environmentally Persistent Free Radicals in Thermal Processing of Superfund Wastes
- Environmentally Persistent Free Radicals Alter Pulmonary Immunologic Homeostasis
- Environmentally Persistent Free Radicals in Contaminated Soils
- Environmentally Persistent Free Radicals Increase Cardiac Vulnerability to Ischemia
- Pollutant-Particle Systems and Xenobiotic Bioactivation
- Structure and Properties of Metal Oxide Particle-Adsorbate Systems

Interdisciplinary Education through implementation of a multi-point approach:

- ◇ Increases postdoctoral and graduate student team-playing and breadth of research knowledge/skills by use of Superfund Teams, student-led monthly seminars, workshops, and mini-grants



- ◇ Enhances postdoctoral and graduate student instruction, scientific literacy and laypeople communication skills through preK-12 outreach activities



- ◇ Provides baseline training in chemistry/physics, combustion, toxicology, and environmental policy and extensive training in student areas of interest

