

PATRICIA L. RADLOFF

EDUCATION

Ph.D. in Chemistry, University of Chicago, Chicago, Illinois
Certificate of Post-Graduate Study in Natural Sciences, University of Cambridge, England
B.S. in Chemistry, University of Virginia, Charlottesville, Virginia

EXPERIENCE

3/1999 – 11/2013 **Texas Parks and Wildlife Department**, Austin, Texas
 Water Quality Program Leader

Develop water quality policy options for Texas Parks and Wildlife Department. Form and lead Department-wide teams to address water quality issues affecting fish and wildlife. Initiate and manage environmental projects. Communicate regarding water quality issues to diverse audiences.

- Initiate, design, manage and implement diverse water quality projects and studies related to the protection of fish and wildlife. Obtain over \$900,000 in federal grant funding. Manage grant budgets. Develop and manage contracts and subcontracts. Develop quality assurance documents. Review state and federal legislative proposals, rules, policies, permit packages and water quality data.
- Communicate orally and in writing regarding technical, regulatory, and policy issues to a wide variety of technical and non-technical audiences, including water quality professionals, wildlife biologists, attorneys, students, private citizens and environmentalists. Annually prepare over 100 reports, memos, briefings, letters and technical emails. Conduct and attend over 100 meetings annually. Represent TPWD at executive meetings with other agencies.
- Analyze and interpret technical data. Extract relevant information and prepare briefings and reports for executive management and staff. Prepare press releases.
- Form, coordinate, direct and manage ad-hoc teams to address department-wide and inter-agency water quality issues. Provide consultation to Department staff for environmental issues as they arise, including wastewater discharge permitting for state fish hatcheries and parks, development of rules, interpretation and implementation of regulations and assessment of discharges and toxic releases for impacts to wildlife. Participate in statewide and regional technical advisory groups.
- Plan, direct and manage workload of three biologists. Coordinate team of 25 biologists. Manage and administer Water Quality Program budget. Hire, train, and develop staff and monitor performance.

3/1994 - 2/1999 **Texas Commission on Environmental Quality**, Austin, Texas
3/1992 - 3/1994 **Environmental Specialist - Industrial Wastewater Permits Team Leader**
 Environmental Quality Specialist - Industrial Wastewater Permit Writer

Supervise team of twelve scientists, engineers, and administrative staff who develop state and federal wastewater and storm water disposal permits and related documents in accordance with state and federal water quality rules, guidance and laws. Manage and review program performance.

- As team leader, annually review about 300 permits and related documents for accuracy and consistency with state and federal guidance and rules, within legally-mandated timeframes. As staff member, review water quality sampling data, analyze technical information and evaluate permit applications. Develop permits and related documents. Prepare and review rule packages and develop general permits.
- Negotiate regulatory compliance issues with permit applicants. Meet with a wide range of individuals, including permittees, stakeholders and protesters in technical meetings, negotiations, public meetings and public hearings.

- Orally and in writing communicate information about wastewater permitting technical procedures, regulations, laws and rules to agency staff, the regulated community, elected officials, other state and federal agencies and the general public. Annually prepare written correspondence, including over 100 letters, memos, and briefings. Annually conduct or attend over 100 meetings and participate in over 500 phone calls with permit applicants and members of the public.
- Make public presentations. Provide expert testimony at public hearings.
- Support other program areas, such as field operations, remediation, solid waste permitting and air permitting, with water quality expertise. Serve on agency-wide teams to address technical issues. Lead and participate in agency-wide projects such as implementation of the federal NPDES permitting program, assessing impacts related to new waste streams and implementation of regulations.
- Plan, direct and manage staff workload. Hire and train staff. Monitor performance and discipline according to agency guidelines.

7/1985 - 4/1987

University of Texas, Austin, Texas

1/1985 - 6/1985

AT&T Bell Laboratories, Murray Hill, New Jersey

10/1878 - 12/1984

University of Chicago, Chicago, Illinois

10/1977 - 6/1978

University of Cambridge, Cambridge, England

1/1977 - 9/1977, 6/1978 - 9/1978

Argonne National Laboratory, Argonne, Illinois

5/1976 - 12/1976

University of Virginia, Charlottesville

Applications of Physical and Theoretical Chemistry

Plan, develop and conduct studies. Design, operate and maintain instruments related to research. Compile and analyze data and mathematically model physical systems. Write and edit technical papers and make technical presentations. Specific research topics included:

- structure and reactions of chemical species on metal surfaces
- properties of organometallic thin films
- energy transfer within isolated molecules
- computer simulation of liquid to solid transition of a model system
- structure of species in high-temperature inorganic vapors
- electronic structure and properties of diatomic molecules
- computer modeling of molecular spectroscopy
- applications of nuclear and radiochemistry to anthropology

SKILLS

- Highly skilled in Microsoft Word, Excel and Access. Proficient in Microsoft PowerPoint.
- Database design and management using Microsoft Access.

AWARDS

- Phi Beta Kappa, University of Virginia
- Summa Cum Laude B. S. in Chemistry, University of Virginia
- Winston Churchill Foundation Scholar at Churchill College, Cambridge, England
- National Science Foundation Fellow, University of Chicago
- University of Chicago Harper Fellow

PUBLICATIONS

1. "The $b^4\Sigma^- \rightarrow a^4\Pi$ Band System of Nitric Oxide," P. L. Radloff and P. A. Freedman, *Mol. Phys.* **37**, 1633 (1979).
2. "The $b^4\Sigma^- \rightarrow a^4\Pi$ Band System of Nitric Oxide," P. A. Freedman and P. L. Radloff, *J. Mol. Spectros.* **88**, 225 (1981).
3. "High-Temperature Raman Spectroscopic Studies of Indium Halide Vapors and Molten Salts: InX , InX_2 , InX_3 and InAlX_4 ($\text{X} = \text{Cl}, \text{Br}$)," P. L. Radloff and G. N. Papatheodorou, *J. Chem. Phys.* **72**, 992 (1980).
4. " $^1B_{2u} \leftrightarrow ^1A_{1g}$ Spectroscopy of Jet-Cooled Benzene: Single Vibronic Level Fluorescence Studies," T. A. Stephenson, P. L. Radloff and S. A. Rice, *J. Chem. Phys.* **81**, 1060 (1984).
5. "Freezing of the Classical Two-Dimensional One-Component Plasma," P. L. Radloff, B. Bagchi, C. Cerjan and S. A. Rice, *J. Chem. Phys.* **81**, 1406 (1984).
6. "SIMS as a Probe of Surface Chemical Kinetics," P. L. Radloff and J. M. White, *Acc. Chem. Res.* **19**, 287 (1986).
7. "The Influence of Substrate Temperature on the Surface Chemistry of Ketene on Pt(111)," P. L. Radloff, C. M. Greenlief, M. A. Henderson, G. E. Mitchell, J. M. White and C. A. Mims, *Chem. Phys. Lett.* **132**, 88 (1986).
8. "The Surface Chemistry of Ketene on Pt(111): I. TPD and SIMS," P. L. Radloff, G. E. Mitchell, C. M. Greenlief, J. M. White and C. A. Mims, *Surface Sci.* **183**, 377 (1987).
9. "The Surface Chemistry of Ketene on Pt(111): II. HREELS," G. E. Mitchell, P. L. Radloff, C. M. Greenlief, M. A. Henderson, and J. M. White, *Surface Sci.* **183**, 403 (1987).
10. "Potassium Adsorption on Pt(111) and Its Effect on CO Chemisorption," C. M. Greenlief, P. L. Radloff, S. Akhter and J. M. White, *MRS Fall Meeting* (1986), Physical and Chemical Properties of Thin Metal Overlayers and Alloy Surfaces, *Vol. 83*, 155 (1986).
11. "Potassium and Its Coadsorption with Carbon Monoxide on Pt(111): A SIMS and TPD Study," C. M. Greenlief, P. L. Radloff, S. Akhter and J. M. White, *Surface Sci.* **186**, 563 (1987).
12. "The Formation and Decomposition Kinetics of Ethylidyne on Ru(001)," C. M. Greenlief, P. L. Radloff, X. L. Zhou and J. M. White, *Surface Sci.* **191**, 93 (1987).
13. "The Surface Chemistry of Ketene on Ru(001): 1. Surface Structures," M. A. Henderson, P. L. Radloff, J. M. White and C. A. Mims, *J. Phys. Chem.* **92**, 4111 (1988).
14. "The Surface Chemistry of Ketene on Ru(001): 2. Surface Processes," M. A. Henderson, P. L. Radloff, C. M. Greenlief, J. M. White and C. A. Mims, *J. Phys. Chem.* **92**, 4120 (1988).
15. "The Surface Chemistry of Ketene on Ru(001)," M. A. Henderson, P. L. Radloff, C. M. Greenlief, J. M. White and C. A. Mims, *J. Vac. Sci. Technol.* **A6**, 769 (1988).
16. *Advances in Chemical Physics Vol. LIX, Index: Vol. I - LV*, P. L. Radloff, New York, John Wiley and Sons (1985).
17. "Review of the Retrospective Analysis done by the Texas Commission on Environmental Quality for U.S. Environmental Protection Agency Region 6 Regional Technical Advisory Group (RTAG) on January 18, 2006 and A Subsequent Reanalysis Based on Recalculating the Criteria," W. Schlechte, J. B. Taylor, and P. L. Radloff, Texas Parks and Wildlife Department Publication Number PWD RP V3400-1043, Water Quality Technical Series WQTS-2007-02 (2007). Accessible at http://tpwd.texas.gov/landwater/water/envirnoncerns/water_quality/wq_research/WQ_Reports.phtml.

18. "Tidal Streams Use Attainability Analysis Water Quality Data," P. L. Radloff, Texas Parks and Wildlife Department Publication Number PWD RP V3400-1130, Water Quality Technical Series WQTS-2008-01 (2008). Accessible at http://tpwd.texas.gov/landwater/water/environconcerns/water_quality/wq_research/WQ_Reports.phtml.
19. "Nutrient Effects in Small Brazos Basin Streams," P. L. Radloff, C. Contreras, A Whisenant and J. M. Bronson, Texas Parks and Wildlife Department Publication Number PWD BK V3400-1216, Water Quality Technical Series WQTS-2010-02 (2010). Accessible at http://tpwd.texas.gov/landwater/water/environconcerns/water_quality/wq_research/WQ_Reports.phtml.
20. "Seagrass Response to Wastewater Inputs: Implementation of a Seagrass Monitoring Program in Two Texas Estuaries," C. Contreras, A Whisenant, J. M. Bronson and P. L. Radloff, Texas Parks and Wildlife Department Publication Number PWD RP V3400-1690, Water Quality Technical Series WQTS-2011-02 (2011). Accessible at http://tpwd.texas.gov/landwater/water/environconcerns/water_quality/wq_research/WQ_Reports.phtml.
21. "Statewide Seagrass Monitoring Protocol Development," P. L. Radloff, C. Hobson, A. Whisenant and J. M. Bronson Warren, Texas Parks and Wildlife Department Publication Number PWD RP V3400-1785, Water Quality Technical Series WQTS-2013-02 (2013). Accessible at http://tpwd.texas.gov/landwater/water/environconcerns/water_quality/wq_research/WQ_Reports.phtml.