

Noel Palmer, Ph.D

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42 Hitching Post, Bozeman MT 59715

Education

Ph.D. Chemistry, University of Idaho, Moscow, ID 83843

- Analytical Methods, Spectroscopic and Electrochemical study on natural soil and mineral samples.
- Specialized coursework in Subsurface Studies, Geology, Hydrology, Geochemistry, Soil Physics, Advanced Spectroscopy, Electrochemical Methods, Liquid Chromatography (size exclusion, ion exchange,) Microbiology.
- Advisor: Ray von Wandruzka, University of Idaho Chemistry Dept, rvw@uidaho.edu

M.S Chemistry, University of Idaho, Moscow, ID 83843

- GPA 3.85
- Analytical chemistry with specialized coursework in Instrumental Techniques, Soil Chemistry, Environmental Chemistry.
- Advisor: Ray von Wandruzka, University of Idaho Chemistry Dept, rvw@uidaho.edu

B.S. Chemistry, University of Wyoming, Laramie, WY 82071

- GPA 3.5

Work Experience

Lab Director for Analytical Research Labs, Bozeman MT

- Management of analytical facilities
- Oversight of laboratory technicians
- Upkeep and management of Agilent HPLC 1100, Agilent GC 6890N, LabConco Bio-safety Hood, Autoclave, pH electrodes.
- Work includes analysis of soil samples, water samples, and plant samples.

Post doc at MSU (Montana State University)

- Research on mineralogical and microbial content of ice cores from Antarctica
- Atomic Absorption Spectroscopy
- ICP Spectroscopy
- Flow Cytometry
- XRD and XRF
- Data management and report filing.

Consultant – El Capitan Precious Minerals

- Auditing of laboratory methods and data management for Copper State Labs
- Assessment of project history.
- Sample preparation and delivery to CSAL
- Recommendations for future research and projects.

Consultant – Muddy Creek Mining

- Auditing of data and reports for Muddy Creek mining project
- Assessment of project history.
- Recommendations for future research and projects.

Senior Research Scientist, Soil Chemistry Research Lab, University of Idaho

August 2000-August 2003

- General management of Soil Chemistry research laboratory. PI Daniel Strawn, Soils Dept, PSES College.

- Primary use and maintenance of: Thermo Jarrall Ash IRIS ICP-AES, Perkin Elmer FT-IR with microscope accessory, Mettler Toledo Auto-titrator, high speed centrifuge, anoxic glove box.
- Other instrumental skills: XAFS, NMR, EPR Spectroscopy, XRD, GC-MS, HPLC, LC.
- Training of graduate and undergraduate students in general laboratory practice.
- Management and disposal of hazardous wastes.
- Field sampling techniques for soils and water systems.
- Data management and reporting (see publications).
- Website development and maintenance.
- *Supervisor: Dan Strawn, University of Idaho Soils Dept, dgstrawn@uidaho.edu

Caretaker, Protection Island National Wildlife Refuge, U.S. Fish & Wildlife Service

August 2003 – February 2004

- Maintain facilities on no-public-use refuge
- Gather, compile, and report data and findings
- *Supervisor: Pam Sanguinetti, Biological Technician, USFWS WA Maritime National Wildlife Refuge Complex; 360-457-8451; pam_sangunetti@fws.gov

Awards and Fellowships

- Inland Northwest Research Alliance (INRA) Fellowship, 2005-2007.
- National Science Foundation GK-12 Fellowship, 2008-2009.
- International Humic Substances Society (IHSS) Malcom Renfrew Award (2006) for student research.
- Outstanding Teaching Assistant Award, University of Idaho Chemistry Department.

References

*All supervisors may be contacted to discuss my qualifications and performance.

Publications and Meetings

-Palmer, Noel E.; von Wandruszka, Ray., **The Role of Quinoid Moities on Humic Materials in the Reduction of Arsenates.** submitted to Organic Geochemistry 2009.

-Palmer, Noel E.; von Wandruszka, Ray. **The Influence of Aggregation on the Redox Properties of Humci Materials.** Environmental Chemistry (2008), 6(8), 178-184.

-Palmer, Noel E.; Freudenthal, John H.; von Wandruszka, Ray. **Reduction of Arsenates by Humic Materials.** Environmental Chemistry (2006), 3(2), 131-136.

-Strawn, Daniel G.; Palmer, Noel E.; Furnare, Luca J.; Goodell, Carmen; Amonette, James E.; Kukkadapu, Ravi K. **Copper sorption mechanisms on smectites.** Clays and Clay Minerals (2004), 52(3), 321-333.

-Palmer, Noel E.; von Wandruszka, Ray. **Dynamic light scattering measurements of particle size development in aqueous humic materials.** Fresenius' Journal of Analytical Chemistry (2001), 371(7), 951-954.

-Del Negro, Andrew S.; Palmer, Noel E.; Patrick Sullivan, B. **Preparation and photophysical studies of 5-phosphino and 5,6-diphosphino substituted 1,10-phenanthroline complexes of Re(I).** Book of Abstracts, 215th ACS National Meeting, Dallas, March 29-April 2 (1998).

-Palmer, Noel; von Wandruszka, Ray. **The Role of Quinoid Moieties of Humic Materials in the Reduction of Arsenates** . Abstracts, Joint 63rd Northwest and 21st Rocky Mountain Regional Meeting of the American Chemical Society, Tacoma, WA, United States, 2009.

-Palmer, Noel; von Wandruszka, Ray. **The Effect of Aggregation on the Reduction Potentials of Aqueous Humates and Fulvates**. Abstracts, Joint 63rd Northwest and 21st Rocky Mountain Regional Meeting of the American Chemical Society, Park City, UT, United States, June 15-18 (2008).

-Palmer, Noel; Von Wandruszka, Ray. **Reduction of arsenic by humic acids adsorbed on mineral surfaces**. Abstracts, 62nd Northwest Regional Meeting of the American Chemical Society, Boise, ID, United States, June 17-20 (2007).

-Palmer, Noel; von Wandruszka, Ray. **Arsenate reduction by humic materials**. Abstracts, International Humic Substances Society Meetings, Karlsruhe, Germany, July 2006.