

## **CURRICULUM VITAE: Dina L. López**

Address: Department of Geological Sciences, Ohio University, 316 Clippinger Laboratories, Athens, Ohio 45701-2979  
Telephone: (740) 593-9435. Fax: 593-0486. E-mail: lopezd@ohiou.edu

### **EDUCATION**

Ph.D. in Geology, 1992, Louisiana State University, Baton Rouge, Louisiana, U.S.A.  
M.Sc. in Physics, 1979, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, U.S.A.  
Licenciante (B.Sc. equivalent) in Chemistry, 1975, Universidad de El Salvador, Central America.

### **PROFESSIONAL EXPERIENCE**

Ohio University, Department of Geological Sciences, Athens, Full Professor (2008-present)  
Ohio University, Department of Geological Sciences, Athens, Associate Professor (May 2001- 2008)  
Ohio University, Department of Geological Sciences, Athens, Assistant Professor (September 1995-May 2001)  
The University of British Columbia, Department of Geological Sciences, Research Associate (fluid and heat flow modeling), September 1994-August 1995. Post-Doctoral Fellow, July 91- August 1994. Supervisor: Dr. Leslie Smith.  
Louisiana State University in Baton Rouge, Department of Geology and Geophysics. Graduate Teaching Assistant, 1988-1991.  
CEL (Department of Energy in El Salvador). Petrophysicist (Geothermal energy Division), 1981-1987.  
University of El Salvador, Department of Physics, Professor of Physics, 1979-1980 (full time), 1981-1987 (part time).  
Virginia Polytechnic Institute and State University, Department of Physics, Graduate Teaching Assistant, 1977-1979.

### **HONORS AND AWARDS**

Best Paper Award, 2006 meeting of the Geothermal Resources Council, Geofluids section, for the paper: "Assessment of silica scaling around injection wells of the Berlin Geothermal Field, El Salvador, using field experiments and chemical modeling".  
Best Paper Award, 2004 meeting of the Geothermal Resources Council, for the paper: "Diffuse and Convective Degassing of Soil Gases and Heat at the TR-6-Zapotillo Hydrothermal Discharge Zone, Berlín Geothermal Field, El Salvador".  
Victor de Sola 2003 National Award for outstanding contributions to the development of Geothermal Energy in El Salvador, LaGeo (Geothermal Energy Company in El Salvador).

Outstanding Faculty Award 1999, 2000, 2001, Department of Geological Sciences, Ohio University, Athens, Ohio.

International Fellowship, American Association of University Women 1990-1991.

Fellowship, Organization of American States 1988-1990.

Fellowship (Agency for International Development) to get training in the experimental determination of physical properties of rocks, University of California in Berkeley, Dec. 1983- Jan. 1984.

Scholarship (M. Sc. degree in Physics), LASPAU (Latin American Scholarship Program of American Universities), 1977-79.

## **PROFESSIONAL ASSOCIATIONS**

Member of the Geological Society of America

Member of the American Geophysical Union

Member of the American Association of University Women

Member at large of the International Association of Groundwater for Sustainable Development

## **NATIONAL COMMITTEES AND PANELS**

Committee on Integrated Observations for Hydrologic and Related Sciences, National Academy of Sciences, The National Academies, 2005-2007.

Member of the Diversity Subcommittee of the American Geophysical Union. We elaborated a national plan to increase diversity in the Earth Sciences, 2001-2002.

U.S. EPA Peer Review Panel to review the MAI applicants (a fellowship program for minority undergraduate students), Washington D.C., 2000, 2001.

U.S. EPA Peer Review Panel to review the applicants for the STAR fellowships, Washington D.C., 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2006.

## **PUBLICATIONS**

### **Diffuse soil degassing and hydrothermal process**

**López, D.L.**, Ransom, L., Monterrosa, J., Soriano, T., Barahona, F., Olmos, R., and Bundschuh, J., 2009. Volcanic arsenic and boron pollution of Ilopango Lake, El Salvador. *In* Natural Arsenic in Groundwater of Latin America, J. Bundschuh, Armienta, M., Birkle, P., Bhattacharya, P., Matschullat, J., A. B Mukherjee, A.B. editors, Taylor & Francis, p. 129-143.

**López, D.L.**, Matus, A., Castro, C., Magaña, M.I., and Sullivan, M., Implications of temporal changes in solute concentrations for the mass balance of the Berlin Geothermal Reservoir, *Geothermal Resources Council Transactions*, vol. 32, p. 459-465.

Marrero, R., **López, D.L.**, Hernandez, P.A., and Pérez, N.M., 2008. Carbon dioxide discharged through the Las Cañadas aquifer, Tenerife, Canary Islands. *In* "Terrestrial

- fluids, earthquakes and volcanoes: The Hiroshi Wakita Volume II", *Pure and Applied Geophysics (PAGEOPH)*, vol. 165, p. 147–172.
- Olmos, R., Barrancos, J., Rivera, C., Barahona, F., **López, D.L.**, Henríquez, B., Hernández, A., Benítez, B., Hernández, P.A., Pérez, N.M., Galle, B., 2007. Anomalous emissions of SO<sub>2</sub> during the recent eruption of Santa Ana Volcano, El Salvador, Central America. In "Terrestrial fluids, earthquakes and volcanoes: The Hiroshi Wakita Volume II", *Pure and Applied Geophysics (PAGEOPH)*, vol 164, p. 2489-2506.
- Pérez, N.M., Hernández, P. A., Padrón, E., Cartagena, R., Olmos, R., Barahona, F., Melián, G., Salazar, P. and **López, D.L.**, 2006. Anomalous diffuse CO<sub>2</sub> emission prior the January 2002 short-term unrest at San Miguel volcano, El Salvador, Central America, in "Terrestrial fluids, earthquakes and volcanoes: The Hiroshi Wakita Volume I", McGee, K., King, Chi-Yu, Gurrieri, S., and Perez, N.M. editors, *Pure and Applied Geophysics (PAGEOPH)*, vol. 163, p. 883-896.
- López, D.L.**, Bundschuh, J., Soto, G.J., Fernández, J.F., and Alvarado, G.E., 2006. Chemical evolution of thermal springs at Arenal volcano, Costa Rica: Effect of volcanic activity, precipitation, seismic activity, and earth tides. *Journal of Volcanology and Geothermal Research*, v. 157, p. 166-181.
- López, D.L.**, Castro, M., Matus, A., Reyes López, J., Guevara, W., Montalvo, F., and Guerra, C.E., 2006. Assessment of silica scaling around injection wells of the Berlin Geothermal Field, El Salvador, using field experiments and chemical modeling, *Geothermal Resources Council Transactions*, Vol. 30, p. 501-506.
- Castro, M., **López, D.L.**, Reyes, J.A., Matus, A., Montalvo, F., and Guerra, C.E., 2006. Expected silica scaling from reinjection waters after installation of a binary cycle power station at Berlin Geothermal Field, El Salvador, Central America. *Geothermal Resources Council Transactions*, Vol. 30, p. 487-494.
- Magaña, M.I., Henríquez, E., and **Lopez, D.L.**, 2006. Anomalies in the content of radon gas and presence of hydrothermal alteration in Chipilapa Geothermal Area. *Geothermal Resources Council Transactions*, Vol. 30, p. 487-494.
- Castro, M.R., **López, D.L.**, Reyes, J.A., Montalvo, F.E., Montalvo, Romero, R., Ramírez Hernández, J., Lázaro Mancilla, O., 2006. Modeling Scaling of Silica at Reinjection Wells at Berlin Geothermal Field, El Salvador, Central América. *Proceedings 31st Stanford Geothermal Workshop Geothermal Reservoir Engineering Jan 30-Feb 1, 2006 Stanford, California*, p. 408-415.
- Lopez, D.L.**, Padron, E., Magaña, M.I., Gómez, L., Barrios, L.A., Pérez, N.M. and Hernández, P. 2004. Structural Control on Thermal Anomalies and Diffuse Surficial Degassing at Berlín Geothermal Field, El Salvador. *Geothermal Resources Council Transactions*, Vol. 28, p. 477-483.
- Magaña, M.I., **Lopez, D.L.**, Barrios, L.A., Pérez, N.M., Padron, E., and Henríquez, E., 2004. Diffuse and Convective Degassing of Soil Gases and Heat at the TR-6-Zapotillo Hydrothermal Discharge Zone, Berlín Geothermal Field, El Salvador. *Geothermal Resources Council Transactions*, Vol. 28, p. 485-488.
- Lopez D.L.**, Ransom, L., Perez, N., Hernandez, P. and Monterrosa, J., 2004. Dynamics of diffuse degassing at Ilopango Caldera, El Salvador. Rose, W.I., Bommer, J.J., **López, D.L.**, Carr, M.J., and Major, J.J. editors, *Geological Society of America Special Paper No. 375 "Natural Hazards in El Salvador"*, pp. 191-202.

- Cartagena, R., Olmos, R., **López D.L.**, Soriano, T., Barahona, F., Hernández, P. and Perez, N., 2004. Diffuse soil degassing of carbon dioxide, radon, and mercury at San Miguel Volcano, El Salvador. Rose, W.I., Bommer, J.J., **López, D.L.**, Carr, M.J., and Major, J.J. editors, Geological Society of America Special Paper No. 375 "Natural Hazards in El Salvador", pp. 203-212.
- Salazar, J.M.L., Hernández, P.A., Pérez, N.M., Rodolfo Olmos, Barahona, F., Cartagena, R., Soriano, T., **Lopez, D.L.**, and Notsu, K., 2004. Spatial and temporal variations of diffuse CO<sub>2</sub> degassing at Santa Ana-Izalco-Coatepeque volcanic complex, El Salvador, Central America. Rose, W.I., Bommer, J.J., **López, D.L.**, Carr, M.J., and Major, J.J. editors, Geological Society of America Special Paper No. 375 "Natural Hazards in El Salvador", pp. 135-146.
- Pérez, N.M., Salazar, J.M.L., Hernández, P.A., Olmos, R., Barahona, F., Cartagena, R., Soriano, T., **Lopez, D.L.**, and Notsu, K., 2004. Diffuse CO<sub>2</sub> and <sup>222</sup>Rn degassing from San Salvador volcano, El Salvador, Central America. Rose, W.I., Bommer, J.J., **López, D.L.**, Carr, M.J., and Major, J.J. editors, Geological Society of America Special Paper No. 375 "Natural Hazards in El Salvador", pp. 227-236.
- Magaña, M.I., Henríquez, E., and **López, D.**, 2003. Study on diffuse degassing and alteration mineralogy in the Berlin Geothermal Field. Proceedings of the International Geothermal Conference, Reykjavík, Sept. 2003, pp. 33-39.
- Padrón, E., López, D.L., Magaña, M.I., Marrero, R., and Pérez, N.M., 2003. Diffuse degassing and relation to structural flow paths at Ahuachapan Geothermal Field, El Salvador. *Geothermal Resources Council Transactions*, vol. 27, pp. 325-330.
- Salazar, J.M.I., Pérez, N.M., Hernández, P.A., Soriano, T., Barahona, F., Olmos, R., Cartagena, R., **López, D.L.**, Lima, N., Melián, G., Castro, L., Galindo, I., and Notsu, K., 2002. Precursory diffuse carbon dioxide soil degassing signatures of recent earthquakes in El Salvador, Central America. *Earth and Planetary Sciences Letters*, Vol. 205, p. 81-89.
- Magaña, M.I., **López, D.L.**, Tenorio, J., and Matus, A., 2002. Radon and carbon dioxide diffuse soil degassing at Ahuachapan Geothermal Field, El Salvador. *Geothermal Resources Transactions*, Vol. 26, p. 341-344.
- López, D. L.**, 2002. On the interpretation of conductive heat flow anomalies near fault zones. *Geothermal Resources Transactions*, Vol. 26, p. 437-441.
- López, Dina L.**, Cobb, Mark C., Golding, Sue, and Glikson, Miryam, 1999. Modeling hydrothermal maturation of coal and generation of coal seam gas. In *Coalbed Methane: Scientific, Environmental and Economic Evaluation*, Matalerz, M., Glikson, M., Golding, S.D. (editors), pp. 423-434.
- Cobb, Mark C., **López, Dina L.**, Glikson, Miryam, and Golding, Sue. 1999. Simulating the conductive and hydrothermal maturation of coals and coal seam gas in the Bowen Basin, Australia. In *Coalbed Methane: Scientific, Environmental and Economic Evaluation*, Matalerz, M., Glikson, M., Golding, S.D. (editors), pp. 435-448.
- López, D.L.**, and Smith, L., 1996. Fluid flow in fault zones: Influence of hydraulic anisotropy and heterogeneity on the fluid flow and heat transfer regime, *Water Resour. Res.*, vol. 32, pp. 3227-3235.
- Smith, L., **López, D.L.**, Beckie, R., Morin, K., Dawson, R., and Price, W., 1995, Hydrogeology of Waste Rock Piles, *Department of Natural Resources Canada CANMET*, 130 pp.

- López, D. L.**, and Smith, J. L., 1995. Fluid flow in fault zones: Analysis of the interplay of convective circulation and topographically-driven groundwater flow. *Water Resour. Res.* v. 31 , pp. 1489-1503.
- López, D. L.**, Smith, L., and Sorey, M.L. 1994. Modeling fluid flow and heat transfer at Basin and Range faults: Preliminary results for Leach Hot Springs, Nevada. *Geothermal Resources Transactions*, Vol. 18, 11-16.
- López, D. L.**, and Williams, S. N., 1993. Catastrophic volcanic collapse: relation to hydrothermal processes. *Science*, Vol. 260, 1794-1796.
- Williams, S. N., Schaefer, S.J., Calvache, M.L., and **Lopez, D.**, 1992. Global carbon dioxide emission to the atmosphere by volcanoes. *Geochim. Cosmochim. Acta* 56, 1765-1770.

### **Acid Mine Drainage and Other Contaminant Problems**

- Sahu, Paramewar, **Lopez, Dina L.**, and Stoertz, Mary W., *in press*, Using Time Series Analysis of Coal Mine Hydrographs to Estimate Mine Storage, Retention Time, and Mine-pool Interconnection, *Mine Waters and the Environment*.
- Doe, Carol F., **López, Dina L.**, and Stuart, Ben J., 2008, Water flow, soil temperature, and carbon dioxide concentrations in a burning coal refuse pile. Proceedings 2008 U.S. EPA/NGWA Remediation of Abandoned Mine Lands Conference, October 2-3, Denver, Colorado, NGWA, Ground Water On-line, p. 220-234.
- López, Dina L.** and Zhang, Qian, 2008. Leaching experiments with acid mine drainage sediments from abandoned coal mines of Southeastern Ohio. Proceedings 2008 U.S. EPA/NGWA Remediation of Abandoned Mine Lands Conference, October 2-3, Denver, Colorado, NGWA, Ground Water On-line, p. 167-181.
- Dsa, J.V., Johnson, K.S., **Lopez, D.**, Kanuckel, C., and Tumlinson, J., 2008. Residual toxicity of acid mine drainage-contaminated sediment to stream macroinvertebrates: relative contribution of acidity vs. metals, *Water, Air and Soil Pollution*, vol. 194, p. 185-197
- Armienta, M.A., Amat, P.D., Larios, T., and **Lopez, D.L.**, 2008. America Central y Mexico. In “Distribucion de Arsenico en las Regiones Iberica e Iberoamericana”, J. Bundschuh, A. Pérez Carrera, and M.I. Litter editors, Monograph for CYTED, p. 187-210.
- Larios de López, D.**, Guzmán, H., and Mira, E., 2008. Riesgos y posibles impactos de la minería metálica en El Salvador, *Revista ECA, Universidad Centroamericana José Simeón Cañas*, v. 63, No. 711-712, p. 77-91.
- Carroll, K., **López, D.L.**, and Stoertz, M., 2003. Solute transport at low flow in an acid stream in Appalachian Ohio. *Air, Water and Soil Pollution*, vol. 144, pp. 195-222.
- López, D.L.**, and Stoertz, M., 2001. Chemical and physical controls on waters discharged from abandoned underground coalmines, *Geochemistry: Exploration, Environment, Analysis*, Vol. 1, pp. 51-60.
- Shimala, J.R., **Lopez, D.L.**, and Farley, M. Mass Retention and Transport Along a Successive Alkalinity Producing System that Remediate Acid Mine Drainage. Proceedings of the National Association of Abandoned Mine Lands Annual Conference, August 19-22, 2001, Athens, Ohio.

- López, Dina L.**, Overly, Bryan, Robbins, Eleanora I., and Carroll, Keneth, 1999. The role of flow regime on the chemical evolution of acidic waters discharged from an abandoned underground coal mine. In *Sudbury 99 Mining and the Environment II, Conference Proceedings*, Sudbury, Ontario, Canada, September 12-16, 1999, Vol. 1, pp. 89-98.
- Pigati, Eric, and **López, Dina L.**, 1999. Effect of subsidence on recharge at abandoned coal mines generating acidic drainage: The Majestic Mine, Athens County, Ohio. *Mine Waters and the Environment, Vol. 18, No. 1*, 45-66.
- Stoertz, Mary, and **López, Dina L.**, 1998. Acid Mine Drainage in Southeastern Ohio, Guidebook No. 17, Ohio Department of Natural Resources, Division of Geological Survey, Preprint prepared for the 1998 North-Central Section meeting of the Geological Society of America. Columbus, 44 pp.
- López, D.L.**, Smith, L., and Beckie, R., 1997. Modeling water flow in waste rock piles using kinematic wave theory, Proceedings Fourth International Conference on Acid Rock Drainage, Vancouver, B.C., Canada, pp. 497-514.

## GRANTS

- Rankin, E., Dyer, J., Johnson, K., **López, D.L.**, Springer, G., Stoertz, M., Stuart, B., Vis-Chiasson, M.L., Yoder, C.O., 2004. A watershed classification system and geomorphic tool to predict habitat variables in the western Allegheny Plateau Ecoregion: Toward refined biocriteria and stressor identification of impaired streams. US Environmental Protection Agency 2003-Star-A1, \$869,440.00.
- López, Dina L.**, Research Challenge Grant, Ohio University, 2004, \$6000.00.
- López, Dina L.**, Instituto Tecnológico y de Energías Renovables Senior Fellowship for research in Tenerife, Canary Islands during my sabbatical year (April 2003), \$12,000.00.
- López, Dina L.**, Research Challenge Grant, Ohio University, 2001, \$6000.00.
- López, Dina L.**, Transport and fate of contaminants under high flow conditions at Monday Creek Watershed, Ohio. Ohio Department of Natural Resources Division of Mine Reclamation, 2000, \$11,819.60
- Stoertz, M., and **López, D.L.**, Post-Reclamation Monitoring of the Rock Run Gob Pile, Perry County, Ohio, Ohio Department of Natural Resources Division of Mine Reclamation, 2000, \$34,850.13.
- López, Dina L.**, and Elizabeth H. Gierlowski-Kordesch, Effect of hydraulic regime on contaminant storage of lake sediments, 1999 Ohio University 1804 Fund Program, \$21,350.00.
- López, Dina L.**, Equipment to Develop Field Skills for Environmental Work in Geology, House Bill 850 Funds for Instructional Equipment, Ohio University, Funds for Instructional Equipment, Ohio University, 1999, \$34,220.00.
- López, Dina L.**, Sources of Arsenic and Boron at two volcanic lakes affected by anthropogenic contaminants and volcanic inputs: Ilopango and Coatepeque Lakes, El Salvador, Ohio University 1999 Baker Fund Award, \$10,000.00
- López, Dina L.**, Hydrogeochemical Characterization of the Carbondale Wetland, Athens County, Ohio: Evaluation of Remediation Alternatives, Ohio Department of Natural Resources Division of Mine Reclamation, 1999, \$28,985.00.

- Stuart, Ben J. (PI), Stoertz, Mary, Edwards, Kenneth, and **López, Dina L.**, Influence of underground mines and the Misco Gob piles on the Black Fork/Ogg Creek subwatershed. Council on Unreclaimed Strip Mined Lands (Funded through partnership with Perry County Soil and Water Conservation District) \$195,744.23.
- López, Dina L.**, Modeling Hydrothermal Coal Maturation and Generation of Coal Seam Gas in a Sedimentary Basin: Bowen Basin, Australia. Collaborative project with the University of Queensland. Funding agency: Energy Research Development Corporation, Australia. March 1997-98, \$61, 745.
- López, Dina L.**, Physical and chemical processes controlling flow and water quality in areas affected by acid mine drainage in southeastern Ohio, OURC, January 1996, \$6997.00.
- Mary Stoertz (PI), Douglas Green, **López, Dina L.** and Ken Edwards Enhancement of Teaching Field Methods in the Hydro- and Geosciences. House Bill Funds for Instructional Equipment, Ohio University, 1997,\$70,340.
- Mary Stoertz, and **López, Dina L.**, Hydrologic investigation of water supplies in mined areas of Ohio, Ohio Department of Natural Resources Division of Mine Reclamation, October 1996. \$45,000.00.

#### **THESIS DIRECTED**

- Cook, Shannon, The Hydrogeology of an Old Growth Forest with Implications for Defining Impact Zones Associated with Underground Mining, M. Sc. in Geology, 2008.
- Zhang, Qian, Chemical Characterization of AMD Sediments: Possible Application to Arsenic Remediation, M. Sc. in Environmental Studies, 2008.
- Gbolo, Prosper, Chemical and Geological Controls on the Composition of Waters and Sediments in Streams Located within the Western Allegheny Plateau: The Shade River Watershed. M. Sc. In Geology, 2008.
- Sullivan, Michael, Water Balance of the San Simon River Groundwater Basin, El Salvador, Central America: Implications for the Berlin Geothermal Field, M. Sc. In Geology, 2008.
- Larkins, Clayton, Analysis of physical and chemical parameters at Majestic Mine, Athens County, Ohio, and the evaluation of passive remediation efforts, B. Sc. in Geology, 2007.
- Graham, Amber, Effects of subsidence closure and stream reclamation on the hydrogeochemistry of Majestic Mine, Athens County, Ohio, M. Sc. In Geology, 2006.
- Castro, Marlon. Simulation of silica scaling in the reinjection zone of Berlin Geothermal Field, El Salvador, Central America. Master in Engineering Thesis. Universidad de Baja California, Mexicali, Baja California, Mexico, 2006.
- Amaning, Kwarteng, Streamwater and Sediment Chemistry of Ohio's Western Allegheny Plateau Ecoregion and their Relation to Aquatic Life, M. Sc. In Geology, 2006.
- Clinton, Timothy, Natural versus anthropogenic remediation of acid mine drainage in southeast Ohio: an assessment of water and sediment chemistry, M. Sc. In Geology, 2005.
- Ruiz, Victoria, Diffuse soil degassing at abandoned underground coal mines. M. Sc. in Geology, 2003.

- Soto, Yomari, The impact of the Fajardo Municipal Landfill on Fajardo River, Puerto Rico. M. Sc. in Geology, 2003.
- Kudel, David. Investigation of heavy metal contamination in Ilopango Lake, El Salvador, Central America, M. Sc. in Environmental Sciences, 2003.
- Ransom, Loretta, Volcanic diffuse soil degassing and lake chemistry of the Ilopango Caldera system, El Salvador, Central America, M.Sc. in Geology, 2002.
- Doe, Carol F., Hydrological and thermal mechanisms in a burning coal refuse pile: The Misco gob pile, Perry County, Ohio, M. Sc. in Geology, 2001.
- Shimala, Jennifer, Hydrogeochemical characterization of the Carbondale wetland, Athens County, Ohio: Evaluation of acid mine drainage remediation alternatives. M.Sc. in Geology, 2000.
- Carroll, Kenneth C., The transport and fate of acid mine drainage along the Snowfork flowpath in the Monday Creek watershed, Southeastern Ohio, M. Sc. in Geology, 1999.
- Hunt, Kristy, The characterization of groundwater flow and trichloroethylene transport in the West Lafayette, Ohio wellfield (Using three dimensional modeling techniques), M.Sc. in Geology, 1999.
- Prim, Debra, The effect of acid mine drainage on sedimentation processes and water quality at Lake Hope, Lake Hope State Park, Vinton County, Ohio, M.Sc. in Geology, 1999.
- McCutcheon, Molly, Anthropogenic and volcanic pollution at Coatepeque Lake, El Salvador. Molly McCutcheon, Senior Thesis, B.Sc. in Geology, 1998.
- Pigati, Eric. The Hydrology and Geochemistry of an Abandoned Underground Coal Mine: The Majestic Mine, Athens County, Ohio, M.Sc. in Geology, 1997.
- Overly, Bryan. The Chemical and Microbiological Variability of Acid Mine Drainage Affecting the Snow Fork Drainage Basin, Ohio: the Essex Underground Mine, M.Sc. in Environmental Studies, 1997.

## **SHORT COURSES AND SEMINARS**

- Field Methods and Analysis of Heat flow and Diffuse Soil Gases in Thermal Areas**, Universidad de Vigo, Oruense Campus, Spain, June 7-27, 2007.
- El Impacto de la Explotación Minera en los Recursos Hídricos y la Salud**, Universidad Luterana, San Salvador, El Salvador, March 20-24, 2007
- Geochemical modeling of aqueous systems: speciation, reaction path, and advective transport**. Instituto de Ingenieria, Universidad de Baja California, Mexicali, Mexico, June 2006.
- Geochemistry of Hydrothermal Systems**, LaGeo, San Salvador, El Salvador, August 2005.
- Statistical methods in the geosciences**, LaGeo, San Salvador, El Salvador, August 2005.
- Geochemical modeling of aqueous systems: speciation, reaction path, and advective transport**, LaGeo, San Salvador, El Salvador, March, 2003.
- Use of conductive heat flow measurements in geothermal exploration**, LaGeo, San Salvador, El Salvador, July-August, 2002.

**Geochemical modeling of aqueous systems: speciation, reaction path, and advective transport.** Instituto Tecnológico y de Energías Renovables, Tenerife, Canary Islands, Spain, 1999.

**Geochemistry of Hydrothermal Systems,** Instituto Costarricense de Electricidad (ICE), San Jose, Costa Rica, 1994.

#### **PAPERS PRESENTED:**

- López, D.L.,** Ramírez, J., Funes, C.R., and Caballero, V., “Volcanism, thermal waters, and arsenic in El Salvador”, Workshop “Arsenic in Latin American”, Buenos Aires, Argentina, Noviembre 2006.
- López, D.L.,** “Natural sources and transport of arsenic in surficial and ground waters”, Workshop “Arsenic in Latin American”, Buenos Aires, Argentina, Noviembre 2006 (Invited talk).
- López, D.L.,** Ransom, L., Monterrosa, J., Soriano, T., Barahona, F., Olmos, R., and Bundschuh, J., 2006. Volcanic pollution of Arsenic and Boron at Ilopango Lake, El Salvador. Conference Natural Arsenic in Groundwater of Latin America, Mexico City, June 19-23, 2006.
- López, D. L.** and Clinton, T., 2005. Effect of Remediation in the Chemical Evolution of Waters and Sediments Along Three Streams Impacted by Acid Mine Drainage in Southeast Ohio. *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract H13E-1372.
- López, D.L.,** Hollenkamp, C., Gierlowski-Kordesch, E., 2005. Variability of heavy metal concentrations in a lake affected by acid mine drainage. 10<sup>th</sup> International Symposium on the Interactions between Sediments and Water. Bled, Slovenia, August 28-September 2, 2005.
- López, D.L.,** Salazar, P., Hernandez, P., Marrero, R, and Perez, N.M., 2004. Tidal Modulation of Diffuse CO<sub>2</sub> Degassing and Seismic Activity at Teide Volcano, Tenerife, Canary Islands. *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract V13D-02.
- Clinton, T., and **López, D.L.,** 2004. Natural Versus Anthropogenic Remediation of Streams Impacted by Acid Mine Drainage in Southeast Ohio. *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract H53A-1207.
- López, D.L.,** Perez, N.M., Padrón, E. and Marrero, R., Diffuse soil degassing along permeable faults at Ahuachapan and Berlin Geothermal Fields, El Salvador, 32<sup>nd</sup> International Geological Congress, Florence, Italy, August 20-28, 2004.
- Lopez, D.L.,** Perez, N., and Marrero, R., Energy released at Teide Volcano, Tenerife, Canary Islands. American Geophysical Union Fall Meeting, San Francisco, California, Dec. 12-15, 2003.
- Marrero, R., **Lopez, D.L.,** and Perez, N., Fluid-rock interaction at Las Cañadas aquifer, Tenerife, Canary Islands. American Geophysical Union Fall Meeting, San Francisco, California, Dec. 12-15, 2003.
- Lopez, D.L.,** and Ruiz, V., 2003. Diffuse soil degassing from abandoned underground coal mines. Joint meeting of the European Geological Society-American Geophysical Union-European Union of Geoscience Joint Assembly, Nice, France, April, 2003.

- D. L. López**, C. Doe, B. Stuart, and M. Stoertz, Chemical and thermal variations in seeps discharged from a burning coal refuse pile, American Geophysical Union Fall Meeting, San Francisco, Dec. 5-12, 2002.
- V. Ruiz, and **D.L. López**, Diffuse Soil Degassing of Radon and Mercury from Abandoned Underground Coals Mines in Southeastern Ohio, American Geophysical Union Fall Meeting, San Francisco, Dec. 5-12, 2002.
- N. Perez, J. Salazar, P. Hernandez, T. Soriano, T., F. Barahona, R. Cartagena, R. Olmos, and **D. Lopez**, Anomalous Change of Diffuse CO<sub>2</sub> Emission Rates at San Salvador volcano, El Salvador, Central America: a premonitory geochemical signature of magmatic and/or tectonic reactivation? American Geophysical Union Fall Meeting, San Francisco, Dec. 5-12, 2002.
- López, Dina L.**, and Shimala, Jennifer R., Seasonal impact of acid mine drainage from abandoned underground coal mines, Annual North-Central Meeting of the Geological Society of America, Lexington, Kentucky, April 2002.
- Magaña, M.I., **López, D.L.**, Tenorio, J., and Matus, A., Radon and carbon dioxide diffuse soil degassing at Ahuachapan Geothermal Field, El Salvador. *Geothermal Resources Council Meeting*, Reno, Nevada, September 22-25, 2002.
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### **Dr. Jochen Bundschuh**

International Technical Cooperation Program, CIM (GTZ/BA),  
Instituto Costarricense de Electricidad (ICE), San Jose,  
Costa Rica 10032  
Tel. 506-2207587  
Email: jochen.book@gmail.com

### **Dr. Elizabeth Gierlowski-Kordesch**

Department of Geological Sciences,  
316 Clippinger Laboratories  
Ohio University,  
Athens, Ohio 45701  
Tel.: 1-740-593-1989  
Email: gierlows@ohio.edu

### **Dr. Jaime Reyes**

Instituto de Ingenieria  
Universidad de Baja California  
Mexicali, Baja California, Mexico  
Tel: 52-686-566-4150  
Email: jaime@iing.mx1.uabc.mx