

Laura Rosales Lagarde

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CURRENT POSITION/ OCUPACIÓN ACTUAL

Associate Professor, Environmental Science. Environmental & Resource Science Program, Physical and Life Sciences Department, School of Liberal Arts, Sciences & Business - Nevada State College.

"Strong people do not need strong leaders." - Ella Baker

EDUCATION/ EDUCACIÓN

Investigation of karst brackish-sulfidic springs and their role in the hydrogeology, subsurface water-rock interactions, and speleogenesis at northern Sierra de Chiapas, Mexico

Ph.D. in Geology, September 2012

Cave and Karst Studies Program, New Mexico Institute of Mining and Technology, Socorro, New Mexico.

Advisor: Penelope J. Boston.

Geochemistry and stratigraphy of the volcanosedimentary Paleozoic sequence from Northeastern Hidalgo State, Mexico

Master's Degree in Science, Geology, 2002

Universidad Nacional Autónoma de México, Posgrado en Ciencias de la Tierra, Mexico City, Mexico.

Advisor: Elena Centeno-García.

Synthesis of the organometallic compound $Cu(N, N'-(4,6-o-Benciliden-glucose)_2-en) Cl.H_2O$ and study of its catalytic effect in alkenes epoxidation

Bachelor's Degree in Chemistry (Licenciatura en Ciencias Químicas), 1994

Instituto Tecnológico y de Estudios Superiores de Monterrey/ Monterrey Technologic Institute of Superior Studies, Campus Monterrey.

Advisor: Javier Rivas-Vargas.

PREVIOUS EMPLOYMENT/ EMPLEOS ANTERIORES

August 2015 to May 2016.

Adjunct Professor. College of Southern Nevada, Physical Science Department, 6375 W Charleston Blvd, Las Vegas, NV 89146, USA. *Teaching Environmental Science Lecture, Physical Geography Laboratory, and Geology Laboratory.* Supervisors: Gale Martin, Barbara Graham, and John Keller.

August 2015 to May 2016.

Tutor. Math & Science Resource Center, College of Southern Nevada, Physical Science Department, 6375 W Charleston Blvd, Las Vegas, NV 89146, USA. Supervisor: Thomas Gill.

August 2014 to May 2015:

Limited-term Assistant Professor, Georgia Southern University, Statesboro, Georgia, USA. *Teaching Geomorphology Lecture, Environmental Geology Lab and Introduction to Earth Lab.* Supervisor: Dr. Jeffrey Stephen Underwood

June to July 2014:

Postdoctoral researcher, *Center for Water, Monterrey Institute of Technology* Centro del Agua, Instituto Tecnológico y de Estudios Superiores de Monterrey, Campus Monterrey, Monterrey, Nuevo León, México.

Geochemical characterization of the vadose zone below the Metropolitan Area of Monterrey, Mexico. Supervisor: Jurgen Mählknecht

January to May 2014:

Independent researcher, Mexico City.

September to December 2013:

Co-organizer in Mexico of the “National Geographic Expedition to Cueva de Villa Luz” held from December 10th to 21st, 2013. Supervisor: Penelope Boston.

May 2012 to August 2013:

Postdoctorate scholar, University of Nevada Las Vegas, Las Vegas, Nevada. *Cave climate monitoring and speleothem-based paleoclimate research in caves in Mexico.*

Supervisor: Mathew Lachniet.

May 2010- December 2010:

Research assistant, New Mexico Institute for Mining and Technology, Socorro, NM. Supervisor: Penelope J. Boston.

January to May, 2010:

Teaching Assistant- *Chemistry Lab I*, New Mexico Tech, Socorro, NM. Supervisor: Jeff Altig

August to December, 2009:

Teaching Assistant- *Methods and Theory of Hydrology*, New Mexico Tech, Socorro, NM.
Supervisor: Mark Person.

October 12-15, 2009:

Field assistant during the “*Scintillometry for Validation and Calibration of Remote Sensing ET Algorithms: A Hands-On Workshop: CUAHSI*, Sevilleta Long Term Ecological Research (LTER) Field Station, 22 miles north of Socorro, New Mexico, <http://www.ees.nmt.edu/cuahsi/>

May 1st - 31st, 2009:

Lab assistant: *Inventory of Scintillometer Units*. Supervisor: Dr. Jan Hendrickx, New Mexico Institute of Mining & Technology, Socorro, NM. Supervisor: Jan Hendrickx

May to August, 2008:

Research assistant, Soil sampling for evapotranspiration remote sensing assessment. Supervisor: Jan Hendrickx.

August to December, 2007:

Teaching assistant, *Cave and Karst Systems*, New Mexico Tech, Socorro, NM. Supervisor: Penelope J. Boston.

August 2004 to July 2008: Research assistant, New Mexico Institute for Mining and Technology. Supervisor: Penelope J. Boston.

August 2002 to June 2004:

Research assistant, Geography Institute, National University of Mexico. Mexico City. Assistant on diverse hydrogeologic research activities such as references compilation, the organization of a hydrogeology congress, etc. Supervisor: - Joel Carrillo Rivera

August 2000 to May 2002:

Teaching assistant- *Photogeology and geologic map interpretation*. Engineering Faculty. Universidad Nacional Autónoma de México. Supervisor: Gilberto Silva.

June to December, 1994:

Chemistry Teacher, Garza Sada High School, ITESM, Monterrey, Nuevo León, Mexico.

August to December, 1994:

Teaching assistant, *Analytical Chemistry and Biogeochemistry*- ITESM, Campus Monterrey, Monterrey, Nuevo León, Mexico. Supervisors: Blanca Rodríguez and Dr. Manuel Villa García

June to July 1993:

Participant in the Undergraduate Summer Research Program. Baylor University- Developing FIRE-GC (Fire Infrared Radiation Emission), Waco, Texas.

PROFESSIONAL REFERENCES/ REFERENCIAS PROFESIONALES

Dr. Cindy Shroba- Geology Instructor
College of Southern Nevada
Physical Science Department, 6375 W Charleston Blvd, Las Vegas, NV 89146, USA
Cindy.shroba@csn.edu, Tel. (702) 651-7427

Dr. Chuck Trupe- Assistant Professor Supervisor
Geology Professor, Department of Geology & Geography
Room 1110 Herty Building, Statesboro, GA 30460
Georgia Southern University
ctruped@georgiasouthern.edu, Tel: 912-478-5178, Fax: 912-478-0668

Dr. Jürgen Mahlknecht
Hidrogeoquímica, Hidrología Subterránea
Profesor Investigador y Director de Centro
jurgen@itesm.mx, Tel. +52 (81) 8155.2573 ext. 101, Fax: +52 (81) 8155.2573 ext. 124

Dr. Mathew Lachniet- Postdoc Scholar Supervisor
Department of Geosciences, University of Nevada Las Vegas
4505 S Maryland Parkway, Science & Engineering Bldg. 4022, Las Vegas, NV 89154-4022
USA
mathew.lachniet@unlv.edu, 702-895-4388

Dr. Penelope Boston- PhD Supervisor
Earth & Environmental Science Department, New Mexico Institute of Mining & Technology
801 Leroy Place, Socorro, NM 87801 USA
pboston@nmt.edu, 575-835-5634

Dr. Andrew Campbell- Member of PhD Committee
801 Leroy Place
Earth & Environmental Science Department, New Mexico Institute of Mining & Technology
Socorro, NM 87801 USA
acampbel@ees.nmt.edu, 575-835-5634

Mark Person- Professor of Methods in Hydrology
801 Leroy Place
Earth & Environmental Science Department, New Mexico Institute of Mining & Technology
Socorro, NM 87801 USA
mperson@nmt.edu, 575-835-5634

Dr. Jeff Altig- Chemistry Department Lab Supervisor
801 Leroy Place, Chemistry Department, New Mexico Institute of Mining & Technology
Socorro, NM 87801 USA
jaltig@nmt.edu, 575-835-5263

PUBLICATIONS/ PUBLICACIONES

- Webster KW, Schimmelmann A, Drobniak A, Mastalerz M, **Rosales Lagarde L**, Boston PJ, Lennon JT (2022) *Diversity and Composition of Methanotroph Communities in Caves*, *Microbiology Spectrum*, DOI: <https://doi.org/10.1128/spectrum.01566-21>
- Rosales-Lagarde L** (2019) *Introducción a la biodiversidad dentro de la Cueva de Villa Luz, Tabasco*, in Palma-López, D.J. and Mata-Zayas E. *La Biodiversidad en Tabasco: Estudio de Estado*, Consejo Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO), México, Vol. II, pp. 355-357. Capítulo Diversidad de especies. Accessed July 2019,
- Rosales-Lagarde L.**, Porter R, Terreros-Espinosa, E., Siegel, V., Pisarowicz, J., Hose, L.D., Lord, P., Boston, P.J., Northup, D., Spilde, M., (2019) *Caracterización física del medio ambiente subterráneo de Tabasco*, in *La Biodiversidad en Tabasco: Estudio de Estado*, Consejo Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO), México, Vol. I, pp. 89-97. Palma-López, D.J. and Mata-Zayas E.
- Lavoie K & **Rosales-Lagarde L** (2019) *Moscas quironómidos en la Cueva de Villa Luz, Tacotalpa*, in Palma-López, D.J. and Mata-Zayas E. *La Biodiversidad en Tabasco: Estudio de Estado*, Consejo Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO), México, Vol. II, pp. 366-369. Capítulo Diversidad de especies.
- Mora A., Mählknecht J., **Rosales-Lagarde L.**, Hernández-Antonio, A. (2017) Assessment of major ions and trace elements in groundwater supplied to the Monterrey metropolitan area, Nuevo León, México: *Environmental Monitoring Assessment* 189:394, DOI 10.1007/s10661-017-6096-y
- Webster K.D., **Rosales Lagarde L.**, Sauer P.E., Schimmelmann A., Lennon J.T., and Boston P.J. (2017) Isotopic evidence for the migration of thermogenic methane into a sulfidic cave, Cueva de Villa Luz, Tabasco, Mexico. *Journal of Cave and Karst Studies*, v. 79, no. 1, p. 24–34. DOI: 10.4311/2016ES0125
- Hose L.D., **Rosales-Lagarde L.** (2017) Sulfur-Rich Caves of Southern Tabasco, Mexico. In: Klimchouk A., N. Palmer A., De Waele J., S. Auler A., Audra P. (eds) *Hypogene Karst Regions and Caves of the World. Cave and Karst Systems of the World*. Springer, Cham. DOI: https://doi.org/10.1007/978-3-319-53348-3_54
- Blamey, N.J.F., Boston, P.J., and **Rosales-Lagarde, L.**, (2016). High-resolution signatures of oxygenation and microbiological activity in speleothem fluid inclusions. *International Journal of Speleology*, v. 45, p. 231-241. DOI: 10.5038/1827-806X.45.3.1950
- Rosales-Lagarde, L.**, Boston, P.J., Campbell, A.R., Hose, L.D., Axen, G., Stafford, K.W. (2014) *Hydrogeology of northern Sierra de Chiapas, Mexico: a conceptual model based on a geochemical characterization of sulfide-rich karst brackish springs*, *Hydrogeology Journal* 22: 1447 – 1467, DOI 10.1007/s10040-014-1135-z
- Rosales-Lagarde, L.** (2013) *Sulfidic Karst Springs and Speleogenesis in the Sierra de Chiapas*. AMCS Bulletin 24.
- Rosales-Lagarde, L.** (2013) *New cave survey at Grutas de Juxtlahuca, Mexico*, AMCS Newsletter, 63-65.
- Rosales-Lagarde, L.**, Porter R., et al (2011) *Tabasco Underground*. AMCS Activities Newsletter 34: 129-135.
- Boston, P.J., Spilde, M.N., Northup, D.E., Curry, M.D., Melim, L.A., **Rosales-Lagarde, L.**, 2009, *Microorganisms as Speleogenetic Agents: Geochemical Diversity but Geomicrobial*

- Unity: Hypogene Speleogenesis and Karst Hydrogeology of Artesian basins*: Ukrainian Institute of Speleology and Karstology, Special Paper 1, 51-58.
- Stafford, Kevin W., Ulmer-Scholle, Dana, **Rosales-Lagarde, L.**, 2008, *Hypogene calcitization: evaporite diagenesis in the western Delaware Basin*: Carbonates and Evaporites, v. 23, no. 2, 89-103.
- Rosales-Lagarde, L.**, Tobler, M., Plath, M., 2008. Posibles amenazas y soluciones para la preservación de la Cueva de las Sardinas y sus formas de vida y características únicas/
Possible threats for the preservation of Cueva de las Sardinas its inhabitants and unique characteristics: Mundos Subterráneos 18-19, 80-90.
- Rosales-Lagarde, L.**, Boston, Penelope J., Campbell, A., Stafford, Kevin W., 2008. *Possible structural connection between Chichón Volcano and the sulfur-rich springs of Villa Luz Cave (a.k.a. Cueva de las Sardinas), southern Mexico*. Proceedings of the X, XI and XII Symposia of Vulcanospeleology in Espinasa-Pereña, R. and Pint, J. eds.: Association of Mexican Caves Studies Bulletin 19, Sociedad Mexicana de Exploraciones Subterráneas Boletín 7, Tepoztlán, Morelos, México, 177-184.
- Stafford, K.W., Nance, R., **Rosales-Lagarde, L.**, and Boston, P.J., 2008. *Epigene and hypogene karst manifestations of the Castile Formation: Eddy County, New Mexico and Culberson County, Texas, USA*. International Journal of Speleology 37(2), 83-98.
- Stafford KW, **Rosales-Lagarde L**, Boston P.J., 2008. *Castile evaporite karst potential map of the Gypsum Plain, Eddy County, New Mexico and Culberson County, Texas: A GIS methodological comparison*. Journal of Cave and Karst Studies 70 (1): 35-46.
- Rosales-Lagarde, L.**, Centeno-García, E., Dostal, J. Sour-Tovar, F., Ochoa-Camarillo, H., Quiroz-Barroso, S., *The Tuzancoa Formation: Evidence of an Early Permian Submarine Continental Arc in East-Central Mexico*, 2005. International Geology Review 47 (9), 901-919.

STUDENTS' PROJECTS PRESENTATIONS -PRESENTACIONES DE PROYECTOS DESARROLLADOS POR ESTUDIANTES. An asterisk (*) indicates projects were presented in national or international professional conferences

- Gomez, Kaytlin Isabelle (2023) *The effects of rising temperature from climate change in Tokyo, Japan and Whittier, California*. Oral presentation in the Undergraduate Research & Creative Works Conference, Nevada State College, Henderson, NV, April 28, Awarded first price in oral presentation, Physical and Life Sciences category [Meteorology class]
- Lewis, Briana (2022) *How is urbanization affecting erosional deposits and flowrates in the Las Vegas Wash, Nevada?*, Student Water World Forum, Session 3, Soil, Sediment and Water, Virtual Sessions Th Nov 17, 10:00 to 10:30am. [Principles of Hydrology class]
- Soto, Idalia (2022) *What actions must be taken to increase resilience to climate change in Antarctic ecosystems?* Undergraduate Research & Creative Works conference, Nevada State College, Henderson, NV, April 29, poster. Awarded the second best poster in the Physical & Life Sciences category. [Meteorology class]
- Anderson, Lars (2021) *Has the rate of evaporation of the Lake Mead reservoir increased due to climate change?* Student Water World Forum, Session 9: Water & Weather, virtual conference, Th Nov 18th, 4:00 to 4:30pm [Principles of Hydrology class]

- Neff, Clarissa & **Rosales Lagarde Laura** (2021) *Wounded Knee Cave Air Temperature Analysis, Las Vegas, NV*. Undergraduate Research & Creative Works Conference., April 23, <https://nsc.yuja.com/V/Video?v=2970345&node=10243442&a=2023055337&autoplay=1>
- Soils class students- NRES 322- Fall 2020. *Analysis of the NevCAN Soil characteristics considering their different roles*. (Lace Wawers, Shawna Witt, Clarissa Neff, Cristhian Moran, Robert Hoorn, Shelby Inouye, Vianey Murphy, Cesar Ramirez, Nestor Robles Bermudez, Alexa Smolinski, Justin Traynor). In-class presentation supervised by Douglas Merkler and Laura Rosales Lagarde.
- *Arambula-Quintero C., Vanderberg M., Chen A., Gebremariam A., **Rosales-Lagarde L.** (2020) *Assessment of exposure to particulate matter 2.5 from secondhand smoke inside casinos along Las Vegas Strip, Las Vegas, Nevada*. (2020) Nevada Public Health Association Annual Conference, September 22, Virtual Conference, Video Presentation.
- *Arambula-Quintero C., Vanderberg M., Chen A., Gebremariam A., **Rosales-Lagarde L.** (2020) *Clean Air Tourism: Assessment of Individual Exposure to Indoor and Outdoor Air Pollution On The Las Vegas Strip Using Portable Sensors, Las Vegas, Nevada USA*. Air Sensor International Conference: Virtual Fall Series (2020), July 16th, Virtual Conference. Video Presentation.
- Moriarty M, Vanderberg M, **Rosales-Lagarde L**, Vogel L (2019) *Identification of a Unique Biofilm from the XPLOR Cave System in Quintana Roo, Mexico*, Association of Environmental & Engineering Geologists Students' Night May 14th, Las Vegas, NV.
- *Vanderberg M, Moriarty M **Rosales-Lagarde L**, Vogel L (2019) *Identification of a Unique Biofilm from the XPLOR Cave System in Quintana Roo, Mexico, **Recognized as one of the three best posters***. Arizona- Nevada Academy of Science Annual Meeting, Arizona Western College & University of Arizona, April 6th, Yuma, AZ.
- Arambula-Quintero C., Vogel L, **Rosales-Lagarde L** (2019) *How Does the Morphology and Micro-Climature of Lava Tubes Influence the Presence of Microbes at Lava Beds National Monument, California?* Undergraduate Research Conference & Creative Works Conference, Apr 26th, Nevada State College, Henderson, NV.
- Waller J. & Patterson S. (2019) *What Do NSC College Students Know about Their College Campus Waste?* Undergraduate Research Conference & Creative Works Conference, Apr 26th, Nevada State College, Henderson, NV.
- Gonzalez O, Torres M. & Soto I. (2019) *What Do College Students Think about Population Growth within the U.S and How It Affects Consumption of Resources?* Undergraduate Research Conference & Creative Works Conference, Apr 26th, Nevada State College, Henderson, NV.
- Robles N. (2019) *Make NSC Native Again Project*, Nevada State Student Alliance Board Meeting, March.
- Vanderberg M, (2019) *Field trip to Quintana Roo, Mexico Report*, Nevada State Student Alliance Board Meeting, February.
- Pietras A., **Rosales-Lagarde, L.**, Berli, M., Koonce J., & Healey J. (2018). *Measuring soil temperature and water content with different sensors in an arid soil weighing lysimeter in Boulder City, Nevada*. Independent Study. NSC Undergraduate Research & Creative Works Conference, April 20, Henderson, Nevada.
- Arambula C., Ball P., Heenan M., Lobo J., Monarrez E., Vanderberg M., Williams H., & Witt S. (2018) *Measuring Particulate Matter in the Las Vegas Valley. Awarded Second Place for the Best Poster* in the Physical & Life Sciences category. Environmental Measurement &

- Analysis. NSC Undergraduate Research & Creative Works Conference, April 20, Henderson, Nevada.
- Arostegui, J., Beckman J, Croft M., Ferguson K., Monzulla D., Monzulla S, Piatt L, Staker S. (2018) *Verification of LiDAR Data Using Field Collected Data of Ambrosia and Creosote Dimensions*. Environmental Measurement & Analysis. NSC Undergraduate Research & Creative Works Conference, April 20, Henderson, Nevada.
- Guzman J., Arostegui J., Olaguez B., Duafala A., Stone J., & Martinez D. (2018) *Efficacy of Archived Systemic and Meteorological Data Analysis for Nevada State College Photovoltaic Solar Power Generation Efficiency Evaluation*. Awarded Second Place for the Best Oral Presentation - Physical & Life Sciences category. Meteorology. NSC Undergraduate Research & Creative Works Conference, April 20, Henderson, Nevada.
- Arambula C., Seeber, K., Fowler Z. (2018) *A Look Into the Possibility of Wind Power Generation in Henderson, NV*, Geography 117- NSC Undergraduate Research & Creative Works Conference, April 20, Henderson, Nevada.
- Wallace J., Heather J., Bonetti H., Langenberger B., Bogdan V., Green J., Torres L., & Kerin R. (2018) *Air Quality in Las Vegas, NV, Feb. 5-7, 2018*. Geography 117-NSC Undergraduate Research & Creative Works Conference, April 20, Henderson, Nevada.
- Martinez K, Mejia I, Tan J, Yamat M, Lnkin C, Pope J, Alcantar L, Cazares J, Crisostomo D, Enriquez N, Fuente J. (2018) *Temperature Variation in Wounded Knee Cave at Red Rock Canyon in Las Vegas, Nevada*. Geography 117-NSC Undergraduate Research & Creative Works Conference, April 20, Henderson, Nevada.
- Jennings A. D., Buck P. E., **Rosales Lagarde, L.** & Sabol D. E. (2017) *A Remote Sensing Approach To Understanding The Health Of Clark County Wetlands Park, NV, USA* Session No. 372-Booth# 214; Geological Society of America Annual Meeting Seattle, Washington, USA - Wednesday, 25 October; Geological Society of America Abstracts with Programs. Vol. 49, No. 6, doi: 10.1130/abs/2017AM-299281
- Bermudez V., Czarnecki A., Dieter S., García-Ortíz Y., & Pietras A., 2017, *Seasonal Changes in Wind Speed and Direction at NSC's Farm Garden: Awarded 2nd Place as a Poster Presentation* at the 2nd Undergraduate Research & Creative Works Conference, Nevada State College, April 20th. Meteorology class.
- Call N., Tavernini B., Haro M., Bravo, N., Vega D., & Tracy K., 2017, *Analysis of Temperature Variation Inside and Outside Wounded Knee Cave, Nevada*: Oral Presentation at the 2nd Undergraduate Research & Creative Works Conference, Nevada State College, April 20th. Meteorology class.

SUPPORT TO STUDENT'S SCHOLARSHIPS, GRANTS & ACCEPTED GRADUATE APPLICATIONS/ BECAS, APOYOS ECONÓMICOS Y SOLICITUDES DE POSGRADO APROBADAS PARA ESTUDIANTES

[Zeidman, Ahdee B \(2023\) Reference letter to apply for the Doctorate in Water Resources, University of Nevada Las Vegas](#)

Arambula-Quintero Carlos (2022) Reference letter for the National Academies- Sciences Engineering Medicine Fellowship, Ford Foundation.

Balleza Maria (2022) Reference letter to apply to the Master in Public Administration at UNLV (accepted)

- Zeidman Ahdee (2022) Application to teach Chemistry Lab at Nevada State College, as part-time instructor.
- Lewis, Briana (2022) Application to the United States Geological Survey position, hydrology technician.
- Ramirez Ebduy (2022) Application to the Internship at the Great Basin Institute, Spring.
- Molitor Lynnette (2022) Application to the Hydrologist technician, Clark County Regional Flood Control District
- Pope, Jacob (2022) Reference check- Bio Tech job, Lake Mead- National Park Service- awarded
- Osorio Hernandez, Kevin (2022) Summer Internship with Congresswoman Dina Titus- awarded
- Neff, Clarissa (2021)- The Geological Society of America- Scientists in Parks at Rocky Mountain National Park. National Park Service Summer Paid internship (PD: 2021023)- Awarded
- Zeidman, Ahdee (2021)- *Degradation of Antibiotics in Aqueous Phase using PMS catalytic decomposition with Zero-valent iron nanoparticles immobilized in SBA-15*. Master in Science, UNLV Department of Geoscience, Supervisor: Dr. Erick Bandala, May 4th.- ERS alumni 2017
- Arambula-Quintero, Carlos (2021)- University of Utah Doctoral program in Chemistry- Accepted.
- Mast, Elizabeth (2021)- University of Nevada Reno- Ecology, Evolution and Conservation Biology Master Graduate Program- Accepted.
- Arambula-Quintero, Carlos (2020) WaterReuse Association Nevada Chapter Undergraduate Scholarship- Awarded
- Kha Tran, Abby (2020) Touro's Masters Program for Medical Sciences
- Robles, Nestor (2019) Supported by Nevada State Student Alliance to buy native plants for the Make NSC Native Again Project, June.
- Tavernini, Breanna (2019) Travel and lodging support from Nevada State Student Alliance to co-present *Science and You assignment: Using the search for evidence behind personal decisions as a parallel to the scientific method* at the Earth Educators Rendezvous, Nashville, Tennessee, July 15-19-
https://serc.carleton.edu/earth_rendezvous/2019/program/talks/thursdayA/218359.html
- Ball, Pamela (2018) University of Nevada Las Vegas, Public Administration M.P.A.
- Vanderberg, Marina (2018) Travel support from Nevada State Student Alliance to complete environmental research inside the caves in Quintana Roo, Mexico, Dec 18-28.
- Staker, Shandra (2018) Awardee of the California-Nevada American Water Works Association Undergraduate Scholarship, \$1000 USD

RESEARCH & TEACHING PRESENTATIONS/ PRESENTACIONES CIENTÍFICAS Y EDUCATIVAS

- Tietjen E, **Rosales Lagarde L**, Edmonds E, Iommi M (2023) *Using a Faculty Learning Community to Incorporate University Sustainability (or other) Goals*, Teaching for Learning Conference (T4L), Inclusive, Relationship-Rich Education, Nevada State College, Henderson, NV March 3.

- Tietjen E, **Rosales Lagarde L**, Edmonds E, Iommi M, Growe S, Varga A, Curtis C, Lang-Casera H, Parks J, Region-Sebest M, Manjuck A (2023) Incorporating Sustainability into any Course. 2023 4th Annual Faculty Symposium on Teaching, F January 13.
- Rosales Lagarde L** (2022) *Teaching Geoscience as a Latino Female Professor in Nevada: A Small Door to Increase Diversity in the field*. Invited talk at Diversity, Equity and Inclusion Session- Words Matter Symposium, Association for Environmental & Engineering Geologists meeting- Geology in the Wild, W September 14
- Rosales Lagarde L**, Campbell A, Boston P (2022) *Sulfur and carbon isotopes as tracers of subsurface water-rock-microbial interactions in hydrogen sulfide-rich springs, northern Sierra de Chiapas, Mexico* Astrobiology conference, Atlanta, Georgia, May 19, 1:45-2:00 PM
- Rosales Lagarde L**, Vogel L, Lachniet M (2022) *Exploration of the microbial diversity and the geochemical characteristics of hot spring waters in the Black Canyon, south of Hoover Dam, Lake Mead National Recreation Area, Nevada & Arizona*, Geological Society of America Cordilleran/ Rocky Mountain Section Meeting University of Nevada Las Vegas, Las Vegas, NV, W March 16.
- Buck, P, Edmonds J, Jasoni R, **Rosales-Lagarde L** (2021) GP-IMPACTS: Nevada's GeoGateway Program, A Collaborative Effort to Recruit, Retain, and Graduate more Students into Nevada State College's Environmental and Resource Science B.S. Program: American Geophysical Union Fall Meeting, New Orleans, LA & Online Everywhere. December 3-17, [Abstract - <https://agu.confex.com/agu/fm21/prelim.cgi/Paper/865078>]
- Rosales-Lagarde L**, Edmonds J, Graham B, Jasoni R, Buck P, Shroba C (2021) Place-based learning based on the Nevada Climate Ecohydrological Assessment Network (NevCAN): NSF Nevada Geopaths, Earth Educators Rendezvous, online. July 14, 2:05 PT, https://serc.carleton.edu/earth_rendezvous/2021/program/talks/session1/242347.html [Co-chaired this session]
- Beddows PA, **Rosales-Lagarde L**, Davis B, Mallon E (2021) Jumping the Institutional Gulf: An innovative course for primary data skills. Panel at TeachX Connections. Northwestern University. May 13, 1:00-1:45 pm, <https://teachx21.sched.com/event/j59P/jumping-the-institutional-gulf-an-innovative-course-for-primary-data-skills>
- Buck P, Edmonds JW, Jasoni RL, **Rosales Lagarde L** (2020) *GP-IMPACTS: Nevada's GeoGateway Program- A collaboration between Nevada State College, College of Southern Nevada, and the Desert Research Institute*. American Geophysical Union Fall Meeting, Abstract ID: 683095, December 1-17.
- Edmonds, JW and **Rosales Lagarde L** (2020) Nevada State Science Teachers Association Annual Regional Science Conference. Environmental Science: Guiding CCSD Students Interested in Resource Management to Meaningful (and well) paid jobs. February 01, Southern Nevada Regional Professional Development Program. CCSD Curriculum and Professional Development Division K-12 Science Department
- Rosales-Lagarde L** & Tavernini B (2019) *Science and You assignment: Using the search for evidence behind personal decisions as a parallel to the scientific method*. Earth Educators Rendezvous Nashville, Tennessee, July 18th, https://serc.carleton.edu/earth_rendezvous/2019/program/talks/thursdayA/218359.html
- Blank Jennifer G, Colaprete A, Cohen T, Datta Saugata, Moser D, Nefian A., Northup D, Osburn M, Roush T, Stoker C, Wong U, & BRAILLE Team (2019) NASA's BRAILLE Project: *Results from the 2018 Field Campaign at Lava Beds National Monument (N. CA, USA)*. The

- 2018 BRAILLE Field Team included co-investigators listed above plus C. Arambula-Quintero, P. Boston, J. Chen, J. Ford, B. Kruger, H. Kulkarni, K. Lacey, K. Laclair, C. Manville, D. Milshiteyn, R. Naness, C. Nguyen, E. Noe, R. Osburn, C. Patterson, A. Rogg, **L. Rosales**, M. Selensky, E. Smith, J.R. Skok, M. Spilde, A. Tardy, V. To, L. Vogel, & B. White. Astrobiology Science Conference 506-2, American Geophysical Union, June 24-28, Seattle, Washington, <https://agu.confex.com/agu/abscicon19/meetingapp.cgi/Paper/482131>
- O' Donnell J, Hardy D, **Rosales-Lagarde L** (2018) *Raspberry shake seismographs: a reliable and affordable source of seismic information for education purposes*. Seismic Instrumentation Technological Symposium, Oct 30-31 at Tucson, AZ, https://www.iris.edu/hq/workshops/2018/10/seismic_instrumentation_technology_symposium_2018
- Chen L-WA, **Rosales Lagarde L**, Mi Zhang, Myatt L, Halthore D (2018) Undergraduate Education Using Wearable Sensors to Train Citizen Scientists and Increase Air Quality Awareness, Air Sensors International Conference, Poster 102. October 22, Davis, California, <https://asic.aqrc.ucdavis.edu/>
- Méndez-Pérez, R., **Rosales Lagarde, L.**, Gómez-Cruz, Rodolfo, Boston, PJ. (2017) *Characterization of the air space at Cueva de Villa Luz, Tabasco, Mexico*: Session No. 32, D3. The Geochemistry, Biogeochemistry, and Ecology of Cave and Karst Settings; Geological Society of America 2017, Seattle, WA, USA, Paper 32-5: October 22; Geological Society of America Abstracts with Programs. Vol. 49, No. 6, doi: 10.1130/abs/2017AM-303389
- Rosales-Lagarde L.**, Terreros E., Escobar Potenciano A. (2017) *Caves of Tabasco Project – 2016*: National Speleological Society Convention, International Exploration Session, June 19-23, Rio Rancho, NM, USA
- Rosales Lagarde, L.**, Hall P., Tucker K., Miranda R., Decker L., (2017) *Story telling as a tool for long-term learning of geologic terms*, Earth Science Rendezvous, Oral Session Part of Thursday A: Recruiting, Retaining and Graduating our Students & Broadening Participation: Focusing on Student Development, Thursday DATE, Albuquerque, NM, USA
- Rosales-Lagarde, L.**, Pastén-Zapata, E., Ledesma-Ruiz, Rogelio Mahlkecht, Jürgen, 2015, *Characterization of the undersaturated zone of three aquifers supplying the Monterrey Metropolitan Area, Mexico as a step toward understanding the groundwater recharge*: Geological Society of America Conference, Baltimore, MD, October 31- November 4.
- Fuentes, Javier A., Stern, Jennifer, C., **Rosales-Lagarde, L.**, Boston, Penelope J, Gomez-Cruz-Rodolfo, 2015, *$\delta^{15}N$ of biovermiculations in a sulfidic cave system at Cueva de Villa Luz, Tabasco, Mexico*. Geological Society of America Conference, Baltimore, MD, October 31- November 4.
- Kevin Webster, **Laura Rosales Lagarde**, Peter E Sauer, Arndt Schimmelmann, Jay T Lennon, and Penelope Jane Boston, 2014. *Hydrogen and Carbon Stable Isotopic Compositions and Concentrations of Methane in Cave Air of Cueva de Villa Luz, Tabasco, Mexico*, American Geophysical Union, San Francisco, California, December.
- Bernal, J.P., M.S. Lachniet, **L. Rosales-Lagarde**, Cienfuegos, E, Morales-Puente, P, 2014, *Stable Isotope Values of the Mesoamerican Monsoon: $\delta^{18}O$ and δ^2H values reveal climate controls on summer rainfall amount*, American Geophysical Union, San Francisco, California, December.

- Rosales-Lagarde L.**, Boston PJ, 2014, *Speleogenesis by the sulfidic springs at northern Sierra de Chiapas, Mexico based on their water chemistry*-Hypogene Conference, Karst Waters Institute. San Salvador Island, Bahamas, Feb 02-07.
- Rosales-Lagarde L.**, Boston PJ, Campbell AR, 2013, *Source of hydrogen sulfide to sulfidic-spring ecosystems and watersheds in northern Sierra de Chiapas, Mexico based on sulfur and carbon isotopes*. American Geophysical Union, San Francisco, California, 11 December.
- Rosales Lagarde, L.**, Boston, P.J., Gómez-Cruz, R., Hose L.D., 2013, *Challenges and Opportunities for the Management of Cueva de Villa Luz, Tabasco, Mexico*. National Cave and Karst Management Symposium, 4-8 November, Carlsbad, New Mexico.
- Rosales-Lagarde, L.**, Lachniet, M., Bernal-Uruchurtu, JP. 2013, *Paleoclimate and hydrogeological implications of water seeping into Juxtlahuaca Cave. Guerrero, Mexico*. Geological Society of America Annual Meeting, Denver, Colorado, 27-30 October.
- Rosales-Lagarde, L.**, Lachniet, M., Bernal-Uruchurtu, JP. 2013. *Testing the Assumptions Implicit in the Use of Stalagmites as Paleoclimate Proxies at Juxtlahuaca Cave, Mexico*, AAAS-Pacific Section. Las Vegas, NV, June 17th.
- Rosales-Lagarde, L.** 2013. *Sulfur Isotopes*. **Invited guest speaker** to the Stable Isotopes class. University of Nevada Las Vegas, Las Vegas, NV. April 9th.
- Rosales-Lagarde, L.** 2013. *¿Qué nos dicen los manantiales sulfídicos kársticos sobre el subsuelo de Tabasco?*, Instituto Potosino de Investigación, Ciencia y Tecnología, San Luis Potosí, México, March 15th.
- Rosales-Lagarde, L.** 2012, *Fire & brimstone: Sulfidic karst springs as clues to the underworld of southeastern Mexico*. University of Nevada, Las Vegas, NV. **Invited talk**, October 31st.
- Lauritzen, S.E., Hammer, O., Wheeler, W., Redfield, T., Blanco, M., **Rosales-Lagarde, L.**, Jamtveit, B., 2012. Morphology and mechanics of large collapses: Sotano de las Golondrinas, Mexico. European Geosciences Union General Assembly, Vienna, Austria, April 22-27.
- Boston, P.J., Spilde, M.N., Northup D.E., Melim, L., **Rosales-Lagarde, L.** *Speleogenetic effects of microbial communities in carbonate systems: 64th Annual Meeting- Geological Society of America Rocky Mountain Section*, Albuquerque, NM, May 9-11 2012.
- Rosales-Lagarde, L.**, 2011. *Hydrogeology and geochemistry of springs as tracers of subsurface processes*: California State Polytechnic University, California. **Invited talk**, January 27.
- Blamey, N.J.F., Boston P.J., and **Rosales-Lagarde, L.**, 2010. *Fluid inclusions in speleothems: Time capsules of climate change and microbial processes*: Pan-American Current Research on Fluid Inclusions (PACROFI) conference, Las Vegas, Nevada, USA, June 7th- June 10th, 2010.
- Rosales-Lagarde, L.**, Boston, P.J., Campbell, A., Ulmer-Scholle, D., Scholle, P., 2009. *Regional Geologic Evolutionary Effects On Speleogenesis At Villa Luz Park, Tabasco*, International Congress of Speleology, Kerrville, Texas, USA, July 19th to 26th.
- Rosales-Lagarde, L.**, Boston, P.J., Campbell, A., Pullin, M., 2009. *Villa Luz Park Caves: speleogenesis based on current stratigraphic and morphologic evidence*: International Conference "Hypogene Speleogenesis and Karst Hydrogeology of Artesian Basins": Ukrainian Institute of Speleology and Karstology, Special Paper 1, 2009, p. 245, Chernivtsy, Ukraine, May 12th to 17th.
- Rosales-Lagarde, L.**, Boston, P.J., Pullin, M., Campbell, A., Stafford, K.W., 2009. Clasificación del agua de manantiales y su relación con la formación de cavernas en la región de la Sierra de Tabasco, Norte de Chiapas, México/ *Classification of springs and their relation to cave*

- formation north Chiapas, Tabasco Range, Mexico: IX Congreso Nacional Mexicano de Espeleología, Villahermosa, Tabasco, Enero 30- Febrero 2, 2009.*
- Houston, S., Mozley, P.S., Campbell, A. y Boston, P, **Rosales-Lagarde, L.**, 2009, Petrología y química de las perlas de caverna de la Gruta de las Canicas, Tabasco, México/ *Petrology and chemistry of cave pearls from Cave of the Marbles, Tabasco, Mexico: IX Congreso Nacional Mexicano de Espeleología, Villahermosa, Tabasco, Enero 30- Febrero 2.*
- Briceño-Prieto, S., Bernal, J. P., **Rosales-Lagarde, L.**, Villasuso-Martínez, R, 2009, *Trace element and isotope geochemistry of Naica gypsum mega-crystals: Goldschmidt Conference, Davos, Switzerland, June 21st to 25th, A160.*
- Rosales-Lagarde, L.**, Campbell, A., Boston, P.J., Stafford, K.W., 2008. *Sulfur and oxygen isotopes: evidence of H₂S spring sources, southern Mexico.* Goldschmidt Conference, Vancouver, Canada, July 13th to 18th, 18c/14:45/1, A805.
- Rosales-Lagarde, L.**, Tobler, M., y Plath, M., 2008. Posibles amenazas y soluciones para la preservación de la Cueva de las Sardinas y sus formas de vida y características únicas/ *Possible threats and solutions for the preservation of Villa Luz Cave, its inhabitants and unique characteristics: 1er Foro sobre el estado de la Investigación en la Región Sierra de Tabasco y Norte de Chiapas. Perspectivas Para El Desarrollo Intercultural, 25, 26 y 27 de junio, Oxolotán, Tabasco, México.*
- Rosales-Lagarde, L.**, Boston, P. J., Stafford, K. W., 2008. *Characteristics of caves at the Villaluz Park, Tabasco, southern Mexico: 16th International Karstological School “Classical Karst” – Karst Sediments, Postojna, Slovenia, 16 to 20th June.*
- Rosales-Lagarde, L.**, Campbell, A., Boston, P.J., Stafford, K.W., 2008. *Groundwater Flow-Path Identification in the Tabasco-Chiapas Mountain Range, Southern Mexico: Karst from Recent to Reservoirs, Karst Waters Institute, June 6 to 11, Rapid City, South Dakota, USA, 170-171.*
- Rosales-Lagarde, L.**, Spilde, M., Boston, P.J., Campbell, A., Pullin, M., Stafford, K.W., 2007. *Possible regional groundwater connections: Chemistry of H₂S-rich springs east of El Chichon Volcano: in Espíndola, J.M., Arce, J.L., and Macías, J.L. eds., Proceedings of the Commemorative Conference “El Chichón Volcano: Twenty-five years later”. Universidad Nacional Autónoma de México, Instituto de Geología, Publicación Especial 6. San Cristóbal de las Casas, Chiapas, México, p. 95.*
- Rosales-Lagarde, L.**, Boston, P.J., Spilde, M., Campbell, A., and Stafford, K.W., 2007. Cuevas de Tabasco: en búsqueda de la extensión de la espeleogénesis hipogénica en el área/ *Caves of Tabasco: looking for the extension of hypogenic speleogenesis in the area. 2007 I Congreso FEPUR / V Congreso FEALC, Descubriendo el mundo subterráneo de América Latina y el Caribe, Programa de Conferencias y Actividades, p. 135-136.*
- Stafford, K.W., **Rosales-Lagarde, L.**, Nance, R., and Boston, P.J., 2007. *Speleogenetic evolution from rising to descending fluids: Gypsum karst of southeastern New Mexico and far west Texas.* Geological Society of America, Abstracts with Programs, Vol. 39, No. 6.
- Rosales Lagarde, L.**, Boston, P.J., Pullin, M., Stafford, K.W., 2007. Exploración de la extensión de la espeleogénesis por ácido sulfúrico en la región norte de Chiapas, sur de Tabasco, México/ *Exploration of the sulfuric acid speleogenesis extension in the region north of Chiapas, south of Tabasco, Mexico.* VIII Congreso Nacional Mexicano de Espeleología, Unión Mexicana de Agrupaciones Espeleológicas, Cuetzalan, Puebla, 2-5 Febrero, Memorias, p. 65-66.

- Boston, P.J., Spilde, MN, Northup, DE, **Rosales-Lagarde L**, Stafford K. 2006. *Subsurface sulfur systems: Production and preservation of distinctive biogenic signatures in sulfur, iron, manganese, and carbonate cave systems*. Goldschmidt Geochimica et Cosmochimica Acta 70(18, Supplement): A60.. <http://dx.doi.org/10.1016/j.gca.2006.06.225>
- Centeno-Garcia, E., **Rosales-Lagarde, L.**, and Soreghan, G.S., 2005. *Evidence for late Paleozoic magmatism in western Pangea (Mexico)*: Geological Society of America, Rocky Mountain Section, 57th annual meeting, Abstracts with Programs - Geological Society of America 37, no. 6: 43.
- Boston, P.J., Spilde, M.N., Northup, D.E., **Rosales-Lagarde, L.**, 2005. *Subsurface Sulfur Systems for Astrobiological Applications: Salt Lake City Annual Meeting (October 16–19, 2005)*, Session No. 118, Terrestrial and Extraterrestrial Environments for Microbial Survival II, Geological Society of America Abstracts with Programs, Vol. 37, No. 7, p. 267.
- Rosales Lagarde, L.**, Boston, P.J., 2005. Fuente e Importancia del Ácido Sulfhídrico en la Cueva de Villa Luz, Tabasco, México/ *Source and Importance of Hydrogen Sulfide at Villa Luz Cave, Tabasco, Mexico*. Resumen VII Congreso Nacional de Espeleología. Resúmenes y Programa, Febrero 2-6.
- Hose, L.D., Boston, P.J., Curry, M., **Rosales-Lagarde, L.**, 2005. El nuevo Instituto Nacional de Investigación de Cuevas y Karst: su papel en la comunidad internacional de Cuevas y karst/ *The new National Cave and Karst Research Institute and its role in the international community of caves and karst*: VII Congreso Nacional de Espeleología, Resumen y Programa. Febrero 2-6.
- Angeles-Serrano, G., **Rosales-Lagarde, L.**, Ramos-Leal, J. A., 2004. Características de flujos regionales, y su manifestación, tres casos en México/ *Regional flow characteristics and manifestations: three study cases in Mexico*. Topic 1: Environmental issues of groundwater-flow scaling/ Aspectos ambientales asociados con la escala del flujo de agua subterránea. XXXIII IAH Congress, VII ALHSUD Congress.
- Rosales-Lagarde, L.**, Centeno-García, E., Dostal, J. 1998. *Petrogenesis of Permo-Carboniferous volcanosedimentary rocks near Molango, Eastern Mexico*. Laurentia-Gondwanan Connections before Pangea, Oaxaca City, Oaxaca Mexico, International Geological Correlation Program Project 376.
- Rosales-Lagarde, L.**, Centeno-García, E., Ochoa-Camarillo, H., Sour-Tovar, F. 1997. *Permian volcanism in eastern Mexico-preliminary report, in Mexico*, Instituto de Investigaciones en Ciencias de la Tierra de la Universidad Autónoma del Estado de Hidalgo e Instituto de Geología de la Universidad Nacional Autónoma de México, ed., II Convención sobre la Evolución Geológica de México y Recursos Asociados: Libro-guía de las excursiones geológicas, Excursión 1: Pachuca, Hidalgo, p. 27-32.

GRANTS, RESEARCH PERMITS or SESSION CONVENER/ APOYOS ECONÓMICOS, PERMISOS PARA DESARROLLAR INVESTIGACIÓN O ORGANIZADOR DE SESIÓN CIENTÍFICA

- 2023- Wells Fargo Gift- *All-In-The-Hall Campaign*, \$20,000 USD awarded to the NS Sustainability Council- Jennifer Edmonds & **Laura Rosales Lagarde**
- 2022- The 19th Annual Student Water World Forum, co-organizer, Kate Berry, Laura Rosales Lagarde, Noel Vineyard & Betta Manalo, Th Nov 17 & F Nov 18.

- 2022- National Park Service Research Permit #: LAKE-2020-SCI-0020, Study Title: “*Open source data logging- Hydroclimate research/ teaching*”, Start Date: 10/15/2022, End Date:10/31/2023
- 2022- Wells Fargo Gift- *Water Wise Sustainability Campaign 2022-2023*, \$20,000 USD awarded to the NS Sustainability Council- Jennifer Edmonds & **Laura Rosales Lagarde**
- 2022- Astrobiology Science Conference (AbSciCon)- *Acidophiles and their mineral habitats II*- online session Daniel Jones, Heather Graham, Margaret Meiqi Weng, Laura Rosales Lagarde, and Muammar Mansor, , Th May 19, 4:30-5:30 PM- session convener
- 2021- Wells Fargo Gift- *Sustainability Exploration Center*, \$20,000 USD awarded to the NS Sustainability Council- Jennifer Edmonds & **Laura Rosales Lagarde**
- 2021- Bureau of Land Management, United States Department of the Interior. Authorization to measure air temperature at Wounded Knee Cave, Clark County, Nevada, Feb 2020-2021. In reply to 6840 (NVS0200).
- 2020- National Park Service Research Permit #: LAKE-2020-SCI-0020, Study Title: “*Open source data logging- Hydroclimate research/ teaching*”, Start Date:10/1/2020, End Date:12/31/2020
- 2019- Awardee of Consortium of Universities Allied for Water Research, Inc. (CUAHSI) Instrumentation Discovery Travel Grant- *Open source datalogging- Hydroclimate research/ teaching*. Collaboration with Patricia Beddows (Northwestern University) and Edward Mallon (Cave Pearl Project).
- 2019-2022, Co-PI at *NSF GEOPATHS- IMPACTS: Nevada’s GeoGateway Program: A collaboration between Nevada State College, College of Southern Nevada, and the Desert Research Institute*. PI’s at NSC, Paul Buck & Jennifer Edmonds
- 2019- Co-chair- Session 16: “*T137. Biogeochemical Interactions in Caves and Karst*” Geological Society of America Annual Meeting, Phoenix, AZ
- 2018-June 2019, Co-PI at *NSC Seed Grant, Composting Efficiency of 3D Printer Waste Using Earthworms*, PI. Jennifer Edmonds
- 2018-2019- PI at *Nevada INBRE Pilot Grant, NIH. Characterization of the air quality detrimental or favoring life*.
- 2016, Co-PI at *NASA Space Grant NNX15AI02H. A multi-week learning module on remote sensing for introductory environmental and geology classes*. PI. Paul Buck. Award period September 1 2016 to Aug 31 2017.
- 2010, 2007, and 2006 Graduate Student Association- NMT Travel Grant
- 2008 Marie Curie Grant
- 2008 Goldschmidt Travel Grant
- 2006 Graduate Student Association- Matuszeski Research Grant
- 2006 Anton and Anita Budding Research Grant

MANUSCRIPTS IN PREPARATION/ MANUSCRITOS EN PREPARACIÓN

- Rosales-Lagarde L** Temperature variations in caves at Cowboy Canyon, Blue Diamond, NV
Arambula-Quintero C, **Rosales-Lagarde L**, et al. Weather variations at lava tubes, Lava Tubes National Park, CA
- Vogel L, **Rosales-Lagarde L**, Arambula-Quintero C, Lachniet M. Geochemistry and genomics of hot spring water near Lake Mead, Nevada

- Arambula-Quintero C., Vanderberg M., Chen A., Gebremariam A., **Rosales-Lagarde L.**
Assessment of exposure to particulate matter 2.5 from secondhand smoke inside casinos along Las Vegas Strip, Las Vegas, Nevada.
- Rosales-Lagarde, L.**, Campbell, A., Boston, P.J., *Sulfur and carbon isotopes as tracers of the source of hydrogen sulfide to karst sulfidic springs and watersheds in the northern Sierra de Chiapas, Mexico.*: Chemical Geology.
- Malaska Michael J., Hilary Kelly, Penelope Boston, Mike Spilde, **Laura Rosales-Lagarde**,
Geochemical mapping of Cueva de Villa Luz, following the sulfur.
- Rosales-Lagarde, L.**, Lachniet, M., Bernal-Uruchurtu, J.P., *Paleoclimate and hydrogeological implications of water seeping into Juxtlahuaca Cave. Guerrero, Mexico:* Geological Society of America Special Publication.
- Rosales-Lagarde, L.**, Boston, P.J., Axen, G., *Structural control on cave formation based on field measurements and GIS lineament analysis, Tabasco Caves, Mexico.* International Journal of Speleology.
- Rosales-Lagarde, L.**, Boston, P.J., Ulmer-Scholle, D., Scholle, P., Campbell, A.R., Spilde, M., *Petrographic and isotopic study of sulfide oxidation and sulfuric acid corrosion at active sulfidic caves, northern Sierra de Chiapas, Mexico-* Journal of Sedimentary Research.
- Rosales-Lagarde, L.** Boston, P.J., *Mixing as a speleogenesis agent-enhancing mechanism in sulfidic caves of southeastern Mexico:* International Journal of Speleogenesis.
- Rosales-Lagarde, L.**, Boston, P.J., Northup, D.N., Tobler, M., Spilde, M., Estrada-Bárceñas, D., Palacios-Vargas, J., *Review of microorganism, microarthropods and fish distribution in a high H₂S rich habitat: Cueva de Villa Luz, Tabasco, Mexico.*
- Rosales-Lagarde, L.**, Tobler, M., Boston, P.J. *Are geology and water chemistry the predominant controls on the fish evolution in the sulfidic watersheds of the northern Sierra de Chiapas, Mexico?*

PUBLIC OUTREACH & COMMUNITY SERVICE/ DIVULGACIÓN Y SERVICIO COMUNITARIO

- [2023 CUAHSI Biennial Colloquium- Discover New Horizons in Water Science-](#) Invited to participate in the Go Fund It! Exploring CUAHSI's Grant Programs, Granlibakken Tahoe, Tahoe City, CA, June 11 to 14
- *Sustainability Faculty Learning Community* (2022)- Fall. Co-leader with Erica Tietjen, Jennifer Edmonds & Morgan Iommi
- *Exploring Intersections between the Environment and Justice in Nevada*, Invited talk at the GEOG 305 Community Environmental Problems class, Feb 16 2022, hosted by Dr. Kate Berry (UNR)- virtual
- Bandala Erick (DRI) & Rosales Lagarde L (2022) *Environment, Health & Sustainability*, Invited talk at the Global Health issues class hosted by Dr. Kebret Kebede (NSC), March 01
- Cash, Becky (NSC), Berry Kate (UNR), **Rosales Lagarde Laura** (NSC), *Intersections between the environment and justice in Nevada*, Breakout session 04, NSHE Diversity summit- Come as you are, learn where you're at, do what you can, October 01, 2021 (Virtual)
- CUAHSI Travel Grant Awardees Panel (2021) Virtual CUAHSI Biennial, July 21, 12:00 pm

- Scorpions for Sustainability 2021, April 20 3:15 pm, Nevada State College
- Invited talk: *Assessment of exposure to particulate matter 2.5 from secondhand smoke inside casinos along Las Vegas Strip, Las Vegas, Nevada*, Carlos Arambula-Quintero, Marina Vanderberg, L.-W. Antony Chen, Aman Gebremariam, Bryan Sigel, Tobacco Coalition Monthly Meeting, December 16 2020
- Invited talk: Caves, from the US to Mexico. Caves & Karst class at Virginia Wesleyan University, October 23, 2020
- Informal talk about my career path with FLARE students led by Dr. Amber Howerton, October 25 2020
- Keynote speaker *Las Cuevas como una ventana al pasado*, Congreso Mexicano de Espeleología, Hermosillo, Sonora, Mexico, February 01 2019
- Invited talk- Friends of Nevada Wilderness- Wild Speakers Series, *Caves, Springs, Life and Their Common Bonds*, March 07th 2019
- *Talloires Declaration* Talk at LAS Convocation- Fall 2018- August 11 2018, Nevada State College, Henderson, Nevada
- *Climate Change and Southern Nevada and Latinos-Talk* at Sierra Club March 29 2018, Las Vegas Nevada
- Simultaneous Translation of talks by Esteban Grau Gonzalez and Osmany Pinos- Permaculture and Biology of a Cave in Cuba at National Speleological Society, Ely Nevada, July 2016
- Plática: *Biología de la Cueva de Villa Luz-* Expedición National Geographic 2013. Penelope Boston, Diana Northup, Val Hildreth-Werker, Rodolfo Gómez Cruz, **Laura Rosales Lagarde**, Tapijulapa, Tabasco, Diciembre 17, 2013
- **Rosales-Lagarde L.**, 2013, *Cómo participan los microorganismos en la formación de manantiales y cuevas con ácido sulfhídrico del Estado de Tabasco, México?* Universidad Juárez Autónoma de Tabasco, Villahermosa, Tabasco, November 28th.
- Peer review of manuscript: Ana Z. Miller, Manuel F.C. Pereira, José M. Calaforra, Paolo Forti, Amélia Dionísio, Cesareo Saiz-Jimenez, *Siliceous speleothems and associated microbe-mineral interactions from Ana Heva lava tube*. Geomicrobiology Journal- March-May 2013.
- Geoscience outreach at Las Vegas Science Expo- May 4th 2013. Cashman Center, Las Vegas, NV
- Judge of posters presentations at the Geosymposium, UNLV, Las Vegas, NV, April 12th, 2013
- Caves of Tabasco Project web page: <http://www.garot.com/Tabasco/>
- Assistance and training of Research Experience for Undergrad (REU) students to analyze organic carbon and carbonate isotopes. July 2010.
- Associate Editor- Association for Mexican Caves Studies Activities Newsletter, 2009 and 2011.
- Participation in the LIDAR survey of Sótano de Golondrinas/ Pit of the Swallows, San Luis Potosi, Mexico- Norwegian- Mexican Expedition, March 2009.
- Participation in the Naica Project,. Chihuahua, Mexico, June 2008.
- Science Director- Caves of Tabasco Project, National Speleological Society- 2007 to present.
- Explanation of Karst and Sedimentary structures station for high school and secondary school students, New Mexico Tech, Socorro, NM. August 2007 and 2008.

- Hose, Louise, Rosales-Lagarde, L., *Cueva de las Sardinias, Cueva de Villa Luz*: Talk to the Community of Tapijulapa, June 2005.
- Boston, P., Lavoie, K., Rosales-Lagarde, L., *La Vida en la Cueva de Las Sardinias*, Talk at the CECyTET (Centro de Estudios Científicos y Técnicos del Estado de Tabasco), Tapijulapa, Tabasco. June 17, 2005.
- Guide at the Geology Museum, Universidad Nacional Autónoma de México. November 2002 to January 2003. Audience: General Public

SCHOLARSHIPS & RECOGNITIONS/ BECAS Y DISTINCIONES

- *Social Justice Award*- School of Liberal Arts, Sciences, and Business, Faculty and Staff Award, May 10 2023
- *Sabbatical Leave Request*- Fall 2023 to Spring 2024- Developing Environmental Instrumentation to foster Citizen Science and Course Undergraduate Research Experiences
- *Be State Award*- Nevada State College Recognition to the Sustainability Council Co-Chairs- December 2022.
- *Foundations of Teaching Certificate*- CTLE Teaching Institute, Nevada State College, January 14 2021
- Recognition as “Best Teacher Assistant”- *Methods and Theory of Hydrology*. December 2009.
- *Consejo Nacional de Ciencia y Tecnología*/ National Council of Science, Mexico. Scholarship covering tuition and stipend during my Doctorate studies, 4 years.
- Instituto Tecnológico y de Estudios Superiores de Monterrey, Campus Monterrey. Partial support of tuition payment for undergraduate level, 4.5 years.

SELECTED PARTICIPATION ON TEACHING & RESEARCH WORKSHOPS/ PARTICIPACIÓN EN TALLERES PARA MEJORAR LA PEDAGOGÍA E INVESTIGACIÓN

- *Bringing Geophysics to Introductory Science Courses: Using IGUaNA and GETSI Modules in Your Classroom Workshop*, Laramie, Wyoming, August 8-10 2023
- *W4188- Soil Physics- Soil, Water, and Environmental Physics to Sustain Agriculture and Natural Resources* (Jan 2 & 3, 2023), Atomic Testing Museum, 755 E. Flamingo Rd, Las Vegas, NV & Virtual
- Developing strategies for [Inclusive Teaching Practices](#) workshop and Teaching and learning about [feedback loops](#) workshop- Summer 2021
- Teaching to Transgress Faculty Learning Community- NSC Center for Teaching and Learning Excellence, Spring 2021
- E-Portfolio workshop- AAC&U conference- Feb 2021
- CTLE Best Practices workshop led by Jack Agamba- Fall 2020
- [Earth Educators Rendezvous 2020](#)- Online, July 13-17 (2020). Teaching your upper-level course online: A community collaboration to build robust online Geoscience courses. The Water-Literate Citizen: Help develop a new framework document for water literacy. Applying

ICAP theory of cognitive engagement to active geoscience learning. Effective assessments: maximizing integrity, minimizing grading time.

- CTLE- Online Active Learning Workshop led by Christine Draper- June 2020

MEMBERSHIPS/ MEMBRESÍAS

- Nevada State College Sustainability Council
- Partners for a Sustainable Nevada
- Mineralogical Society of America
- Geological Society of America
- Nevada Public Health Association
- The National Association of Geoscience Teachers
- Geological Society of Nevada
- Nevada Geographic Information Society
- Association of Environmental & Engineering Geologists
- National Speleological Society- Southern Nevada Grotto, Caves of Tabasco Project
- Friends of Nevada Wilderness
- *Sociedad Mexicana de Exploraciones Subterráneas/ Mexican Society of Subsurface Exploration*

PAST MEMBER OF:

- Air & Waste Management Association
- *Unión Mexicana de Agrupaciones Subterráneas/ Union of Mexican Underground Groups*
- American Association of Petroleum Geologists
- American Geophysical Union
- Society of Economic Geologists
- Society of Sedimentary Geology
- Bat Conservation International

EXPERIENCE AS OPERATOR OF QUANTITATIVE CHEMICAL ANALYSIS INSTRUMENTS/ EXPERIENCIA COMO OPERADORA DE INSTRUMENTOS DE ANÁLISIS QUÍMICOS CUANTITATIVOS

- High Temperature Conversion–Elemental Analyzer–Mass Spectrometer. *Analysis of water stable isotopes*. Las Vegas Isotopes Science Laboratory, University of Nevada Las Vegas. Supervisor: Dr. Mathew Lachniet.
- High Temperature Conversion–Elemental Analyzer–Continuous Flow - Thermo Finnigan Delta Plus XP Mass Spectrometer. *Analysis of oxygen isotopes in sulfates*. Stable Isotopes Lab, New Mexico Institute of Mining and Technology Supervisor: Dr. Andrew Campbell.

- Costech Elemental Analyzer CFIRMS Thermo Finnigan Delta Plus XP Mass Spectrometer. *Analysis of organic carbon and sulfur isotopes in sediments, minerals and waters*. Stable Isotopes Lab, New Mexico Institute of Mining and Technology. Supervisor: Dr. Andrew Campbell.
- Gas Bench- Mass Spectrometer. *Analysis of carbon and oxygen isotopes in carbonates and of oxygen isotopes in waters*. Stable Isotopes Lab, New Mexico Institute of Mining and Technology. Supervisor: Dr. Andrew Campbell.
- H-device- Mass Spectrometer. *Analysis of hydrogen isotopes in water*. Stable Isotopes Lab, New Mexico Institute of Mining and Technology. Supervisor: Dr. Andrew Campbell.
- Shimadzu Total Carbon Analyzer- *Analysis of inorganic and organic carbon in sediments and waters*. New Mexico Institute of Mining and Technology, Chemistry Lab. Supervisor: Dr. Michael Pullin
- 790 Personal Ion Chromatograph. *Analysis of anions in waters*. New Mexico Institute of Mining and Technology, Chemistry Lab. Supervisor: Dr. Michael Pullin.
- Hach field spectrophotometer- *Analysis of sulfide in waters*.

EXPERIENCE AS AN USER OF QUANTITATIVE CHEMICAL ANALYSIS INSTRUMENTS/ EXPERIENCIA COMO USUARIO DE INSTRUMENTOS PARA ANÁLISIS CUANTITATIVO QUÍMICO

- JEOL 5800 Scanning Electron Microscope, JEOL 8200 Electron Microprobe. EDS using Oxford Link Ultrathin-window X-ray detector attached to an Oxford Isis 300 X-ray analyzer. *Collection of Secondary Electron, Back Scattered Electron, and Cathodoluminescence images in addition of Energy Dispersive X-Ray Spectra of rock interfaces*. University of New Mexico Electron Microprobe Laboratory. Supervisor: Michael Spilde.
- Agilent 7500i ICP-MS with Integrated Sample Introduction System- *Analysis of cations in water samples*. New Mexico Bureau of Geology and Mineral Resources Chemistry Lab. Supervisor Bonnie Fry.
- PE Optima 5300 ICP-OES- *Analysis of cations in water samples*. New Mexico Bureau of Geology Chemistry Lab. Supervisor: Bonnie Fry.
- X-Pert Pro PAN analytical X-Ray Diffraction analysis of carbonates and sulfates. New Mexico Bureau of Geology and Mineral Resources XRD Lab. Supervisor: Virgil Lueth
- Dionex IC- DX-600 Anion exchange column. *Analysis of anions in water samples*. New Mexico Bureau of Geology and Mineral Resources Chemistry Lab. Supervisor: Dustin Baca.
- Inductively coupled plasma-mass spectrometry (ICP-MS) – *Analysis of trace elements in volcanic rock samples*. Memorial University of Newfoundland. Supervisor: Penny King.
- X-ray fluorescence. *Analysis of major elements in volcanic rocks*. Geochemical Center of the Department of Geology, Saint Mary's University, Halifax. Supervisor: David Slauenwhite.