

Curriculum Vitae

Christopher S. Romanek (H-factor 40: Web of Science)

Research Professor, Department of Earth, Environmental and Sustainability Sciences, Furman University,
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BIRTHDATE: May 26, 1958, Madison Wisconsin.

EDUCATION

Ph.D., Geology, Texas A&M University, College Station TX, 1991.

Dissertation: Carbon isotopic fractionation and precipitation kinetics of synthetic aragonite and calcite grown in dilute solutions, 84 pp.

M.S., Geology, University of Florida, Gainesville FL, 1985.

Thesis: Shell growth in the small giant clam, *Tridacna maxima*, revealed by microstructural and stable isotopic variations, 137 pp.

B.S., Geology, Furman University, Greenville SC, 1982.

Senior thesis: Geology of the major satellites of Jupiter and Saturn, 25 pp.

PROFESSIONAL EMPLOYMENT

- 1/14 to present **Research Professor**, Department of Earth and Environmental Sciences, Furman University, Greenville SC 29613
- 8/09 to 4/13 **Associate Professor**, Department of Earth and Environmental Sciences, University of Kentucky, Lexington KY, 40506
- 7/01 to 8/09 **Associate Professor**, Department of Geology, University of Georgia, Athens GA 30602.
- 7/01 to 8/09 **Associate Research Scientist**, Savannah River Ecology Laboratory, University of Georgia, Drawer E, Aiken SC 29802.
- 7/97 to 7/01 **Assistant Professor**, Department of Geology, University of Georgia, Athens GA 30602.
- 3/95 to 7/01 **Assistant Research Scientist**, Savannah River Ecology Laboratory, University of Georgia, Drawer E, Aiken SC 29802.
- 9/91 to 3/95 **National Research Council Fellow**, Planetary Science Branch, NASA Johnson Space Center, Houston TX 77058.

- 8/82 to 8/91 **Research & Teaching Assistant**, Texas A&M University and
University of Florida.
- 9/81 to 4/82 **Intern**, E.I. Du Pont de Nemours, Savannah River Laboratory,
Energy Research and Development Administration (ERDA),
National Uranium Resource Evaluation (NURE program).
- 5/79 to 9/81 **Field Geologist**, Geological Consulting Services Inc., Greenville SC 29607.

CURRENT RESEARCH INTERESTS

Stable isotope and sedimentary geochemistry of carbonate minerals; biomineralization and mineral-microbe interactions; planetary geochemistry; isotope tracers in biological and inorganic systems; mass spectrometry, electron-beam imaging/elemental analysis, and other micro-analytical techniques.

PROFESSIONAL AFFILIATIONS

The Geochemical Society	Mineralogical Society of America
American Chemical Society	American Geophysical Union
Society of Economic Paleontologists and Mineralogists	American Society of Microbiology

FELLOWSHIPS AND SCHOLARSHIPS

- 1996 Summer Faculty Fellowship, NASA/AASE.
- 1995 Summer Faculty Fellowship, Oak Ridge Institute for Science and Education.
- 1990 Berg Scholarship, Texas A&M University.
- 1989 University Marine Fellowship, TX Sea Grant, Texas A&M University.

AWARDS AND HONORS

- 2004 ISI Essential Science Indicator (<http://www.esi-topics.com/mars/index.html>)
- 1997 Inducted into the J.L. Mann High School Academic Hall of Fame
- 1996 Letter of Recognition, U.S. Senator Kay Bailey Hutchison.
- 1996 Space Pioneer Award, National Space Society.
- 1996 Stellar Award, Rotary National Award for Space Achievement.
- 1996 Laurel Award, Aviation Week.
- 1996 Best science story of 1996, Time Magazine.
- 1996 Top science story, Discovery Magazine.
- 1996 The Best of What's New, Grand Award Winner, Popular Science Magazine.
- 1996 Certificate of Recognition, NASA/AASE.
- 1985 Grant-in-Aid of Research, Sigma Xi, The Scientific Research Society.
- 1984 Outstanding Achievement in Research, University of Florida.

INVITED LECTURES

Universities

Georgia Tech
Rice University
Furman University
University of Florida
Texas Tech University (2)
Georgia State University (2)
College of Charleston
University of Houston (2)
Indiana State University
Northern Illinois University
University of South Carolina
SUNY-Geneseo
North Dakota St. University
University of Reading, UK

Research Institutions

Carnegie Institution of Washington DC (2)
Lunar and Planetary Institute, Houston TX
National Academy of Sciences, Washington DC
Institute of Geological and Nuclear Sciences, New Zealand
Swedish Natural Science Research Council, Stockholm Sweden.
Jones Ecological Research Center at Ichuaway

Keynote Addresses

Environmental and Engineering Geophysical Society, Annual Meeting
Science Teachers Association of Texas, Annual Meeting
President's Lecture Series, University of Georgia
Eighth Annual Investigators Workshop in Space Radiation Research
Academy of the Environment Symposium, UGA
Eleventh Annual Meeting of the Southeastern Bat Diversity Network

Universities

Portland State University
USC-Aiken (2)
McGill University
University of Missouri
USC-Upstate
University of Georgia
 Department of Physics
 Department of Geology (4)
 Warnell School of Forest Resources
Agnes Scott College
University of Granada, Spain (2)
Medical University of South Carolina
University of Arkansas
University of Rochester
Texas A&M University
McMaster University
Dartmouth University
Purdue University
University of Kentucky
 Department of Earth and Environmental Sciences (4)
 Department of Plant and Soil Sciences
 Department of Anthropology
 Department of Physics and Astronomy
Istanbul Technical University (2)
Indiana University Purdue University Indianapolis
Notre Dame
Kent State University

Government

NASA, Johnson Space Center
NASA, Ames Research Center
DOE, Brookhaven National Laboratory
DOE, Savannah River Site
Department of Homeland Security
DOE, Oak Ridge National Laboratory

Annual Conventions

Second International Sclerochronology Conference (ISC)
Microscopy Society of America (MSA)
American Association for the Advancement of Science (AAAS)
American Institute of Aeronautics and Astronautics (AIAA)
Geological Society of America (GSA)
Mineralogical Society of America (MSA)
Clay Minerals Society (CMS)
American Geophysical Union (AGU)
Eleventh Annual Southeastern Bat Diversity Network

Industry

Amoco Production Co.
New Zealand Fishing Industry
 Sanford Ltd., NZ
 Sealord Products Ltd., NZ
 Talley's Fisheries Ltd., NZ
Neogen Corporation

Others

Various local and regional schools, museums, societies.
Aiken Gem and Mineral Club
Over sixty education/outreach presentations since 1996.
CSRA Geological Society
Rotary Club of Aiken SC
Kentucky Paleontological Society

Major News Organizations

BBC, MS-NBC
National Public Radio

CNN Live Press Conference, NASA Headquarters, Wash. DC.
US News and World Report, Time, Newsweek

INVITED PANELS/WORKSHOPS/SYMPIOSIUMS

- 2020** NASA: Panel member for MARS 2020 Participating Scientist Program
2018 NASA: Panel member for Solar System Workings program
2012 NASA: Panel member for Exobiology Program
2008 NASA: Panel member for Astrobiology Science and Technology Instrument
Development and Mission Concept Studies, including Concept Studies for Small
Payloads and Satellites (ASTID)
2008 RCN Geothermal biology and geochemistry in Yellowstone National Park
2007 Stable Isotopes in Archaeological Midden Shells: High-Resolution Paleoclimatic &
Paleoenvironmental Archives
2007 RCN Geothermal biology and geochemistry in Yellowstone National Park
2007 NSF: Annual Microbial Observatories Workshop, Washington D.C.
2006 Selected as Associate Editor to the Journal *Palaios*
2006 University of Georgia: Academy of the Environment
2006 NSF: Annual Microbial Observatories Workshop, Washington D.C.
2005 NSF: Annual Microbial Observatories Workshop, Washington D.C.
2004 NSF: Annual Microbial Observatories Workshop, Washington D.C.
2002 NSF: Consortium of Universities for the Advancement of Hydrologic Science, Inc.
2001 CRDF: Workshop on Thermobiology of the Kamchatka Peninsula
2001 NASA: Panel member for Cosmochemistry Program (CCP), Washington D.C.
2000 NASA: Panel member for Cosmochemistry Program (CCP), Houston TX
1999 NSF: Opportunities in Low-Temperature and Environmental Geochemistry, Boston MA.
1999 DOE: Carbon Sequestration, State of the Science, Gaithersburg MD.
1996 DOE: Report on the International Workshop: Biogeochemistry-2000, Reading UK.
1996 Advised New Zealand Ministry of Fisheries (MAF), Cabinet Office, Wellington NZ.
1994 Deepwater Fish Workshop, St. Petersburg FL.
1991 Dissertation Symposium in Chemical Oceanography, Honolulu HI.
1986 Fifth International Symposium on Biomineralization Arlington TX.

PROFESSIONAL INVOLVEMENT

Director of Undergraduate Studies for Department of Earth and Environmental Sciences: **2012** UK
Principal Investigators Council: **2009** UK
Advisory Board Member: **2008** Center for Applied Isotope Studies, UGA
Symposium Chair **2008** AGU 2008 Meeting
Guest Editor **2008** *Southeastern Naturalist*
Symposium Chair **2008** The 5th Astrobiology Science Conference Meeting.
Associate Editor **2006 to 2008** *Palaios*
Advisory Board Member **2004 to 2006** Ruth Partick Science Education Center, USC-Aiken
Symposium Chair **2004** Advances in stable isotope biogeochemistry: Exploration new interfaces with
biology, American Geophysical Union Fall meeting, San Francisco CA.
Co-Convenor **2003** NEON workshop: Visualization and Forecasting of Environmental Changes in the
Southeastern United States (and Beyond), First Southeastern NEON Planning Workshop,
Savannah River Ecology Laboratory Conference Center, Aiken, SC.
Guest Editor **2003** Isotopic Records of Microbially Mediated Processes, special volume of *Chemical
Geology (Isotope Geoscience Section)*, volume 195.
Symposium Chair **2003** Geomicrobiology: microbes, minerals and the natural environment. Annual
Geological Society of America Annual Meeting, Seattle, WA.
Technical Program Chair **2003** Annual Clay Mineral Society / Mineralogical Society America
Meeting, Athens GA.
Session Chair **2003** Annual Clay Mineral Society / Mineralogical Society America Meeting, Athens
GA.

- Symposium Chair **2003** Environmental research and remediation at the Savannah River Site.
Southeastern Geological Society of America Annual Meeting, Memphis TN.
- Symposium Chair **1999** Isotopic records of microbially mediated processes in natural environments.
Geological Society of America Annual Meeting, Denver CO.
- Symposium Chair **1999** Environmental research and remediation at the Savannah River Site.
Southeastern Geological Society of America Annual Meeting, Athens GA.
- Session Chair **1995** Geochemistry V: Analytical and Sedimentary Geochemistry, Geological Society
of America Annual Meeting, New Orleans LA.

PUBLICATIONS (* post-doc/student under my direction)

- Chen X-Y, Teng F-Z, ***Sanchez W.R., Romanek C.S.**, Sanchez-Navas A. and Sánchez-Román M.,
2020 Experimental constraints on magnesium isotopic fractionation during abiogenic calcite
precipitation at room temperature, *Geochim Cosmochim Acta*, 281, 102-117.
- Goodwin D.H., Gillikin D.P., Banker R., Watters G.T., Dettman D.L. and **Romanek C.S.** **2019**
Reconstructing intra-annual growth of freshwater mussels using oxygen isotopes. *Chem. Geol.* 526, 7-
22.
- *Levitt N.P., Eiler J.M., **Romanek C.S.**, Beard B.L., Xu H. and Johnson C.M. **2018** Near
equilibrium ^{13}C - ^{18}O bonding during inorganic calcite precipitation under chemo-stat conditions.
Geochemistry, Geophysics, Geosystems 19, <https://doi.org/10.1002/2017GC007089>
- Yanes Y., Graves G.R. and **Romanek C.S.** **2018** Stable isotope ecology ($\delta^{18}\text{O}$, $\delta^{13}\text{C}$, $\delta^{15}\text{N}$) of
modern land snails along and altitudinal gradient in southern Appalachian Mountain, USA.
Palaeogeography, Palaeoclimatology, Palaeoecology 492, 92-103.
- Ward J.W., Warden J.G., Bandy A.M., Fryar A.E., Brion G.M., Macko S.A., **Romanek C.S.** and
Coyne M.S. **2016** Use of nitrogen-15-enriched *Escherichia coli* as bacterial tracer in karst
aquifers. *Groundwater* 54, 830-839.
- *Levitt N.P. and **Romanek C.S.** **2016** An “on-line” method for oxygen isotope exchange
between gas-phase CO_2 and water. *Aquatic Geochem.* 22, 253-269.
- Scott D.E., Yanes Y., Rothermal B.B., Pilgrim M. and **Romanek C.S.** **2015** Efficacy of labeling
wetlands with enriched N-15 to determine amphibian dispersal. *Wetlands* 35, 349-356.
- Bhagavatula A., Huffman G., Shah N., **Romanek C.S.** and Honaker R. **2014** Source
apportionment of carbon during gasification of coal-biomass mixtures using stable carbon
isotope analysis. *Fuel Processing Technology* 128, 83-93.
- Dexter T.A., Kaufman D.S., Krause R.A. Jr, Barbour Wood S.L., Simoes M.G., Huntley J.W., Yanes
Y., **Romanek C.S.** and Kowalewski M. **2014** A continuous multi-millennial record of surficial bivalve
mollusk shells from the São Paulo Bight, Brazilian shelf. *Quaternary Research* 81, 274-283.
- Alvares-Lloret P., Rodriguez-Navarro A., **Romanek C.S.**, Ferrandis P., Martinez-Haro M. and Mateo
R. **2014** Effects of lead shot ingestion on bone mineralization in a population of red-legged partridge
(*Alectoris rufa*). *Science of the Total Environment* 466-467, 34-39.
- Bryan L. Jr, Snodgrass J.W., Brant H.A., **Romanek C.S.**, Jagoe C.H., Mills G. and Brisbin I.L.Jr. **2014**
Precipitation influences on uptake of a global pollutant by a coastal avian species. *Environ. Toxicol.*
Chem. 33, 2711-2715.
- Yanes Y., Asta M.P., Ibanez M., Alonso M.R. and **Romanek C.S.** **2013** Paleoenvironmental
implications of carbon isotope composition of land snail tissues. *Quaternary Research* 80, 596-605.

Yanes Y. and **Romanek C.S.** 2013 Quaternary interglacial environmental stability in San Salvador Island (Bahamas): a land snail isotopic approach. *Palaeogeography, Palaeoclimatology, Palaeoecology* 369, 28-40.

Yang Y., Sahai N., **Romanek C.S.** and Chakraborty S. 2012 A computational study of Mg²⁺ dehydration in aqueous solution in the presence of HS⁻ and other monovalent anions- Insights to dolomite formation. *Geochim. Cosmochim. Acta* 88, 77-87.

Britzke E.R., Loeb S.C., **Romanek C.S.**, Hobson K.A. and Vonhof M.J. 2012 Variation in catchment areas of Indiana bat (*Myotis sodalis*) hibernacula inferred from stable hydrogen ($\delta^2\text{H}$) isotope analysis. *Can. J. Zoology* 90, 1243-1250.

Li W., *Chakraborty S., Beard B.L., **Romanek C.S.** and Johnson C.M. 2012 Magnesium isotope fractionation during precipitation of inorganic calcite under laboratory conditions. *Earth Planet. Sci. Lett.*, 333, 304-316.

Bryan Jr. A.L., *Brant H.A., Jagoe C.H., **Romanek C.S.** and Brisbin Jr. I.L. 2012 Mercury concentrations in nestling wading birds relative to diet in the Southeastern United States. *Archives of Environmental Contamination and Toxicology* 63, 144-152.

Jimenez-Lopez C., Rodriguez-Navarro C., Perez Gonzalez T., Rodriguez-Navarro A., Bazylinski D.A. and **Romanek C.S.** 2012 Signatures in magnetite formed by (Ca,Mg,Fe)CO₃, thermal decomposition: Terrestrial and extraterrestrial implications. *Geochim. Cosmochim. Acta* 87, 69-80.

Burgess E.A., Unrine J., Neal A.L., Mills G.L., Samarkin V., Joye S.B., Crowe D., **Romanek C.S.** and Wiegel J. 2012 Factors influencing evidence for sulfate reduction and sulfide biomineralization in core samples collected at two thermal pools in Uzon Caldera, Kamchatka. *Microb. Ecol.* 63, 471-489.

Silva L.F.O., Oliveira M.L.S., Philippi V., Serra C., Dai S., Xue W., Chen W., O'Keefe J.M.K., **Romanek C.S.**, Hopps S.G. and Hower J.C. 2012 Geochemistry of carbon nanotube assemblages in coal fire soot, Ruth Mullins fire, Perry County, Kentucky. *International Journal of Coal Geology* 94, 206-213.

Huntley J.W., Kaufman D.S., Bight J., Kowalewski M, **Romanek C.S.** and Neves R.J. 2012 Sub-Centennial Resolution Amino Acid Geochronology for the Freshwater Mussel *Lampsilis* for the Last 2000 Years. *Quaternary Geochronology* 9, 75-85.

Yanes Y., Kowalewski M. and **Romanek C.S.** 2012 Seasonal variation in ecological and taphonomic processes recorded in shelly death assemblages. *Palaios* 27, 373-385.

Fernández-Remolar D.C., Hill A.C., Sánchez-Román M., Gómez-Ortíz D., Prieto Ballesteros O., **Romanek C.S.** and Amils R. 2011 The environment of early Mars and the missing carbonates, *Meteoritics Planetary Sci.* 46, 1447-1469.

*Yanes Y., **Romanek C.S.**, Molina F. Camara J.A. and Delgado A. 2011 Holocene paleoenvironment (similar to ~7,200-4,000 cal. BP) of the Los Castillejos Archaeological site (SE Spain) inferred from stable isotopes of land snail shells. *Quaternary International* 244, 67-75.

Romanek C.S., Morse J.W. and Grossman E.L. 2011 Aragonite precipitation kinetics in dilute solutions. *Aquatic Geochemistry* 17, 339-356.

*Zhao W.D., Song Z.Q., Jiang H.C., Li W.J., Mou X.Z., **Romanek C.S.**, Wiegel J., Dong H.L. and Zhang CL. 2011 Ammonia-oxidizing Archaea in Kamchatka Hot Springs. *Geomicrobiology J.* 28, 149-159.

*Sánchez-Román M., **Romanek C.S.**, Fernández-Remolar D., McKenzie J.A. and Vasconcelos C. **2011** Aerobic biomineralization of Mg-rich carbonates: implication for natural environments, *Chemical Geol.* 281, 143-150.

Arnay- de- la- Rosa M., González-Reimers E., *Yanes Y., **Romanek C.S.**, Noakes J.E. and Galindo-Martin L. **2011** Paleonutritional and paleodietary survey on prehistoric humans from Las Canadas del Teide (Tenerife, Canary Islands) based on chemical and histological analysis of bone. *Journal of Archaeological Science* 38, 884-895.

*Sánchez-Román M., McKenzie J.A., Rebello Wagener A., Romanek C.S. and Vasconcelos C. **2011** Experimentally determined biomediated Sr partition coefficient for dolomite: Significance and implications for natural dolomite, *Geochim. Cosmochim. Acta* 75, 887-904.

*Jin V.L., **Romanek C.S.**, Donovan L.A. and Sharitz R.R. **2010** Soil nitrogen availability and in situ nitrogen uptake by *Acer rubrum* L. and *Pinus palustris* Mill. in the southeastern U.S. Coastal Plain, *The Journal of the Torrey Botanical Society* 137, 339-347.

Cloutis E.A., Hudon P., **Romanek C.S.**, Bishop J.L., Reddy V., Gaffey M.J. and Hardersen P.S. **2010** Spectral reflectance properties of Ureilites, *Meteoritics and Planetary Science* 45, 1668-1694.

*DeMots R.L., Novak J.M, Gaines K.F., Gregor A.J., **Romanek C.S.** and Soluk D.A **2010** Tissue-diet discrimination factors and turnover of stable carbon and nitrogen isotopes in white-footed mice (*Peromyscus leucopus*), *Canadian Journal of Zoology* 88, 961-967.

Guerra A., Rodriguez-Navarro A., Gonzales A.F., **Romanek C.S.**, Alvarez-Lloret P. and Pierce G.J. **2010** Life history traits of the giant squid *Architeuthis dux* revealed from stable isotope signatures records in beak, *ICES (International Council for the Exploration of the Sea) Journal of Marine Science* 67, 1425-1431.

Krause R.A. Jr., Barbour-Wood S., Kowalewski M., Kaufman D.S., **Romanek C.S.**, Simões M and Wehmiller J.F. **2010** Comparative time averaging: Age mixing among sympatric bivalves and brachiopods from a modern tropical shelf. *Paleobiology* 36, 428-452.

Arnay- de- la- Rosa M., González-Reimers E., *Yanes* Y., Velasco-Vázquez J., **Romanek C.S.** and Noakes J.E. **2010** Paleodietary analysis of the Prehistoric population of the Canary Islands inferred from stable isotopes (carbon, nitrogen and hydrogen) in bone collagen. *Journal of Archaeological Sciences* 37, 1490-1501.

Jimenez-Lopez C., **Romanek C.S.** and Bazylinski D.A. **2010** Magnetite as a Prokaryotic Biomarker. *Journal of Geophysical Research Biogeoscience*, 115, G00G03.

*Green A., Buhlmann K., Hagen C., **Romanek C.S.** and Gibbons J.W. **2010** Mercury contamination in turtles and implications for human health. *Journal of Environmental Health* 72, 14-22.

Willson J.D., Winne C.T., *Pilgrim M.A., **Romanek C.S.** and Gibbons J.W. **2010** Effects of terrestrial resource pulses on trophic niche width and overlap in two sympatric aquatic snake species: A stable isotope approach. *Oikos* 119, 1161-1171.

Romanek C.S., Beard B. Anbar A. and *Andrus C.T.F. **2010** Non-traditional stable isotopes in the environmental sciences. In *Environmental Isotopes in Bioremediation and Microbial Degradation Processes*, (eds.) C.M. Aelion, P. Hohener, D. Hunkeler and R. Aravena. CRC Press LLC, Boca Raton, FL, 385-435.

- *Lee Y-G, **Romanek C.S.** and Wiegel J. **2009** *Desulfosporosinus youngiae* sp. nov., a spore-forming sulfate-reducing bacterium isolated from constructed wetland sediment. *International Journal of Systematic and Evolutionary Microbiology*, 59, 2743-2746.
- Wagner I.D., Ahmed S., Zhao W., Zhang C.L., **Romanek C.S.**, Rohde M. and Wiegel J. **2009** *Caldanaerovirga acetigena* gen. nov., sp. nov., an anaerobic xylanolytic bacterium isolated from Trego Hot Spring, Nevada, USA. *International Journal of Systematic and Evolutionary Microbiology* 59, 2685-2691.
- Romanek C.S.**, *Jimenez-Lopez C., Rodriguez Navarro* A., Sanchez-Roman* M, Sahai N. and Coleman M. **2009** Inorganic synthesis of Fe-Ca-Mg carbonates at low temperature. *Geochim. Cosmochim. Acta* 73, 5361-5376.
- Arnay-de-la-Rosa M., Gamez-Mendoza A., Navarro-Mederos J.F., Hernández-Marrero J.C., Fregel R., *Yanes Y., Galindo-Martín L., **Romanek C.S.** and González-Reimers E. **2009**. Dietary patterns during the early prehispanic settlement in La Gomera (Canary Islands). *Journal of Archaeological Sciences* 36, 1972-1981.
- *Yanes Y., **Romanek C.S.**, Delgado A., Brant H.A., Noakes J.E., Alonso M.R. and Ibáñez M. **2009** Oxygen and carbon stable isotopes of modern land snail shells as environmental indicators along altitude from a low-latitude oceanic island. *Geochim. Cosmochim. Acta* 73, 4077-4099.
- Britzke E.R., Loeb S.C., **Romanek C.S.**, Hobson K.A., and Vonhof M.J. **2009** Assigning origins of bats using stable hydrogen isotope analyses: An investigation of 4 species in the eastern United States, *Journal of Mammalogy*, 90, 743-751.
- Graves G.R. and **Romanek C.S.** **2009** Rapid turnover of carbon and nitrogen isotopes in tissues of a migratory songbird on breeding territories. *Ecological Applications*, 19, 1264-1273.
- Zhang C.L., Ye Q., Huang Z., Li W.J., Chen J., Song Z., *Zhao W., Bagwell C, Inskip W., Ross C., Gao L., Wiegel J., **Romanek C.S.**, Shock E.L. and Hedlund B. **2008** Global occurrence of Archaeal *amoA* genes in terrestrial hot springs. *Applied and Environmental Microbiology* 74, 6417-6426.
- Pearson A., Pi Y., *Zhao W., Li W., Li Y., Inskip W., Bonch-Osmolavskaya E., **Romanek C.S.**, Li S. and Zhang C.L. **2008** Factors controlling the distribution of archaeal tetraethers in terrestrial hot springs. *Applied and Environmental Microbiology* 74, 3523-3532
- Wagner I.D., *Zhao W., Zhang C.L., **Romanek C.S.**, Rohde M. and Wiegel J. **2008** *Thermoanaerobacter uzonensis* sp. nov., an anaerobic, thermophilic bacterium isolated from a hot spring within the Uzon Caldera, Kamchatka, Far East Russia *International Journal of Systematic and Evolutionary Microbiology* 58, 2565-2573.
- *Carroll M. and **Romanek C.S.** **2008** Shell layer variation in trace element concentration for the bivalve, *Elliptio complanata*. *Geo-Marine Letters* 28, 369-381.
- *Zhao W., Zhang C.L., **Romanek C.S.** and Wiegel J. **2008** *Caldalkalibacillus uzonensis* sp. Nov., an emended description of the genus *Caldalkalibacillus*. *International Journal of Systematic and Evolutionary Microbiology* 58, 1106-1108.
- Zhang C.L., Huang Z., Li Y.L., **Romanek C.S.**, Mills G.L., Wiegel J., Culp R., Noakes J. and White D.C. **2007** Lipid biomarkers, carbon isotopes, and phylogenetic characterization of autotrophic bacteria in Nevada and California hot springs. *Geomicrobiol. J.* 24, 1-16.

- *Jimenez Lopez C., Rodriguez Navarro* A., Perez-Gonzales T., Carillo-Rosua F.J. and **Romanek C.S.** **2007** New method for the separation of magnetite from rock samples for oxygen isotope analysis. *European Journal of Mineralogy* 19, 717-722.
- *Unrine J.M., Hopkins W.A., **Romanek C.S.** and Jackson B.P. **2007** Efficient bioaccumulation of trace elements in omnivorous amphibian larvae: Implications for amphibian health and contaminant transport. *Environmental Pollution*, 149, 182-192.
- Bergeron C.M., Husak J.F., *Unrine J.M., **Romanek C.S.** and Hopkins W.A. **2007** Influence of feeding ecology on blood mercury concentrations in four species of turtles. *Environ. Tox. Chem.* **26**, 1733-1741.
- *Lee Y.-J., **Romanek C.S.** and Wiegel J., **2007** *Clostridium aciditolerans* sp. nov., an anaerobic spore-forming acid-tolerant bacterium from constructed wetland sediment. *International Journal of Systematic and Evolutionary Microbiology*, 57, 311-315
- Novak J.M., Gaines K.F., Cumbee Jr. J.C., Mills G.L., *Rodriguez Navarro A. and **Romanek C.S.** **2006** Clapper rails as indicator species of estuarine marsh health. In *Studies in Avian Biology*, (eds) R. Greenberg and S. Droege, **32**, 270-281.
- *Lee Y.-J., **Romanek C.S.** Mills G.L. and Wiegel J. **2006** *Gracilibacter thermotolerans* gen. nov., sp. nov., a novel anaerobic thermotolerant bacterium from a constructed wetland receiving acid sulfate water. *International J. Systematic and Evolutionary Microbiology* 56, 2089-2093.
- *Jimenez Lopez C., **Romanek C.S.** and Caballero E. **2006** Carbon isotope fractionation in synthetic magnesian calcite. *Geochim. Cosmochim. Acta* 70, 1163-1171
- *Carroll M., **Romanek C.S.** and Paddock* L. **2006** The relationship between the hydrogen and oxygen isotopes of freshwater bivalve shells and their home streams. *Chemical Geology* 234, 211-222.
- *Zhao* W., Weber C., King G.M., **Romanek C.S.**, Zhang C.L., Mills G., Sokolova T. and Wiegel J. **2006** *Thermalkaliphus uzonensis* gen. nov. sp. nov, a new aerobic thermophilic carbon-monoxide-tolerant bacterium isolated from a hot spring in Uzon Caldera, Kamchatka. *Extremophiles* 10, 337-345.
- *Unrine J.M., Jackson B.P., Hopkins W.A. and **Romanek C.** **2006** Isolation and partial characterization of proteins involved in maternal transfer of selenium in the western fence lizard (*Sceloporus occidentalis*). *Environ. Toxicol. & Chem.*, 25, 1864-1867.
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- Romanek C.S.** **1997** Stable isotopic analysis of secondary minerals in ALH84001. Office of Space Science, NASA NRA, PI \$45,000.

Gibson E.K.Jr., **Romanek C.S.** and others **1996** Biogeochemical investigations of Martian materials. Office of Space Science, NASA NRA, Co-PI \$432,400.

Bertsch P.M., Mills G.L., **Romanek C.S.**, Chesser R. and Hunter D.B. **1996** Fourier Transform Mass Spectrometry System for Research and Education in the Environmental Sciences, University of Georgia and Savannah River DOE Site, Co-PI \$540,000.

Romanek C.S. **1996** Stable isotope analyses of ground waters and sediments from the coal storage pile and drainage basin at D-area. ESS-Savannah River Technology Center, Savannah River Site, PI \$7,500.

Romanek C.S. **1996** Chemistry of endolymph fluids in *Hoplostethus atlanticus*. Contract to Orange Roughy Management Co., Tauranga NZ, PI \$4,000.

Romanek C.S. **1995** Three-oxygen isotope analysis at the LEAL lab. NASA Johnson Space Center, PI \$25,000.

Gibson E.K. Jr., **Romanek C.S.** and others **1994** Volatiles in extraterrestrial materials. Office of Space Science, NASA NRA, Co-PI \$300,000.

Romanek C.S. **1993** Laser-assisted analysis of subsurface dolomites. Amoco Production Research, Tulsa OK, PI \$20,000.

Romanek C.S. and Grossman E.L. **1990** Carbon isotopic fractionation in magnesian calcite: effects of precipitation rate and Mg content. Project EAR-9018325 National Science Foundation, PI \$24,200.

ADVISOR: POST-DOCTORAL AND GRADUATE STUDENTS

Post-Doctoral

Suvankar Chakraborty
Yurena Yanes
Monica Sanchez Roman
Concepción Jiménez López (+ Fulbright Scholar)
Alejandro Rodríguez Navarro
Fred Andrus
Melissa Pilgrim
Jason Unrine

Ph.D

Nick Levitt
Melisa Bishop
Concepción Jiménez López (+ pre-doctoral associateship)
Robert Thomas
Monica Carroll
Patricia Shaw-Allen
Yong Jin Lee
Virginia Jin
Weidong Zhao
Dan Bulger

M.S.

Sagarika Banerjee
Olivia Woodruff

Forrest Webb
Julie Fiser
Victor E. Millings
Evan B. Perry
Aaron Bogucki
Rebecca Cerajewski
Aaron Gregor
Rachel DeMots
Aaliyah Green
Matt Jarrett

B.S. and summer students

JohnPaul Sleiman
Reed Sanchez
Mitchell Freyermuth
Justin Abney
Bailee Holdelka
Victor E. Millings
David R. Stewart
Kristin W. Paul
Ken Cole
CarriAyne Jones
Ray Batts
Kent Langerlan
Yoana Rosales
Hayley McLeod
Jennifer Thomsen
Abel Munoz
Catherine Brown

MEMBER OF GRADUATE COMMITTEE

Ph.D

Ruixin Zhou (UKY)
William Ford (UKY)
Prakash Dhakal (UKY)
Abhijit Bhagavatula (UKY)
Viki Dekle (UKY)
Suvankar Chakraborty (UKY)
Sang-Hwan Gwak (UGA)
C.F.T. Andrus (UGA)
Joe Elkins (UGA)
Joe Phelps (Purdue University)
Liliana Lefticariu (Northern Illinois University)
Momin Uddin (UGA)
Hisham Ahmed (UGA)
Scott Rush (UGA)
Isaac Wagner (UGA)
Peter Voice (Virginia Tech)
Hai Pan (UGA)
Eric Anderson (UKY)
Ashley Barton (UKY)
John Hickman (UKY)

M.S.

John Warden (UKY)
Ellen Brouillette (UGA)
Elizabeth Hollingsworth (UGA)
Jennifer Kyle (UGA)
Pat Nuessle (UGA)
Brad Reinhart (UGA)
Gregg O'Quinn (UGA)
Ralph Bandy (UKY)
Ryan Quinn (UKY)
Catherine Skees (UKY)
Ashley Barton (UKY)
Michelle Johnston (UKY)
Rachel Hatch (UKY)
Olivia Woodruff (UKY)

OTHER FUNDED STUDENTS

Didem Temel, Istanbul Technical University
Lancine Dosso, Ecole Centrale de Nantes (ECN)
Mabs Johnston, Open University, Milton Keynes UK.
Frank Lieth, Dept. Geology, University of Georgia.

TEACHING EXPERIENCE

EES 472: (3 hr class, Research and Analysis), Department of Earth and Environmental Sciences, Furman University
EES 402 (3 hr class, Low temperature geochemistry), Department of Earth and Environmental Sciences, Furman University
GLY 530 (3 hr class, Low temperature geochemistry), Department of Earth and Environmental Sciences, University of Kentucky.
GLY 745 (3 hr class, Advanced earth system history), Department of Earth and Environmental Sciences, University of Kentucky.
GLY 530 (guest lectures, Low temperature geochemistry), Department of Earth and Environmental Sciences, University of Kentucky.
GLY 745 (3 hr class, Stable isotope geochemistry), Department of Earth and Environmental Sciences, University of Kentucky.
GEOL 4950/6950 (Department of Geology Colloquium), Department of Geology, UGA
GEOL 8460 (3 hr class, Isotope geochemistry), Department of Geology, UGA
GEOL 4420 (3 hr class, Introduction to research in geochemistry), Department of Geology, UGA
GEOL 8020 (3 hrs class; Advanced topics in geochemistry), Department of Geology, UGA
FRES 1020 Search for life in the universe, Department of Geology, UGA
Stable Isotopes in Environmental Sciences, Department of Geology, UGA
Stable Isotope Geochemistry, Department of Geology, Texas A&M University.
Introduction to Geochemistry, Department of Geology, Texas A&M University.
Introduction to Geology, Department of Geology, Texas A&M University.
Mineralogy and Crystallography, Department of Geology, Texas A&M University.
Invertebrate Paleontology, Department of Geology, University of Florida.
Historical Geology, Department of Geology, University of Florida.

DISTANCE LEARNING

Numerous lectures (~ 60 classes) to primary and secondary school children.

MANUSCRIPTS REVIEWED

Solid Earth
PLOS One

Journal of Environmental Quality
Journal of Geophysical Research-Planets
Journal of Geophysical Research-Biogeosciences
Geochimica et Cosmochimica Acta
American Journal of Science
Meteoritics and Planetary Sciences
The Royal Society
 Proceedings: Biological Sciences
 Philosophical Transactions: Biological Sciences
 Proceedings A
Geochemical Journal
Geomicrobiology Journal
Geophysical Research Letters
Science
Nature
Soil Science Society of America Journal
Journal of Geophysical Research
European Journal of Mineralogy
American Mineralogist
Chemical Geology (Isotope Geoscience Sect.)
Journal of Archeological Science
Canadian Journal of Fisheries and Aquatic Sciences
Journal of Fish Biology
Isotopes in Environmental and Health Studies
Journal of North American Benthological Society
Coral Reefs
Marine Biology
Environmental Science & Technology
Geology
Ecology
Palaios
Materials Research Bulletin
Geo-Marine Letters
Sedimentology
Marine Ecology Progress Series
Southeastern Naturalist
G-cubed
Geobiology
Hydrological Processes
Paleogeography, Paleoclimatology, Paleoecology
Earth and Planetary Science Letters
Rapid Communications in Mass Spectrometry
Terra Nova
Latin American Antiquity
The Holocene
Marine Geology
Water Research
Applied Geochemistry

PROPOSALS REVIEWED

NSF programs

 Geology and Paleontology
 Earth System History
 International Programs

Ocean Technology and Interdisciplinary Coordination
Major Research Instrumentation
Integrated Carbon Cycling Research Program
Population and Evolutionary Processes Cluster
Microbial Interactions and Processes
Antarctic Biology and Medicine
Microbial Observatories
Chemical Oceanography
Earth Sciences: Instrumentation and Facilities
Archeology Program
Paleo perspectives on climate change
CAREER Program
Biogeology and Low temperature Geochemistry Program
Earth Sciences Postdoctoral Fellowships (EAR-PF) Program

DOE

Basic Energy Sciences

NASA

Mars 2020 Participating Scientist Program
Cosmochemistry Program
Exobiology Program
Astrobiology Science and Technology Instrument Development and Mission Concept Studies,
including Concept Studies for Small Payloads and Satellites (ASTID) Program
Post-doctoral Awards Program

EPA

EPA Science to Achieve Results (STAR) Fellowship Program

NOAA

Office of Ocean Exploration

OTHER

National Geographic Society
Natural Sciences and Engineering Research Council of Canada (NSERC)
Canada Foundation for Innovation Leaders Opportunity Fund
Natural Environment Research Council, UK
Research Grants Council, Hong Kong, China
Netherlands Organisation for Scientific Research
Austrian Science Fund
Czech Science Foundation