



STUDENT RESEARCH SPOTLIGHT

Congratulations to Jake Roberson (Sul Ross State University, Texas, USA) and Erin Gibbons (McGill University, Canada) for winning 2020 CMS Student Research Grants!



Jake Roberson

Jake studies the **effect of clays on acoustic signals**. The lower Rio Grande River (USA) is monitored by the US Geological Survey to understand invasive and native vegetation impacts on sediment transport and depositional processes along the river over time. Multifrequency side-looking acoustic-Doppler profiler instruments have been used to provide sediment load estimations at two locations in the Big Bend National Park (Texas), demonstrating a unique relationship between clay- and silt-sized particle concentration and an attenuation coefficient associated with the

acoustic signals. Jake's primary aim is to investigate a possible correlation between a specific clay mineral and that unique relationship by X-ray diffraction analysis of suspended sediment samples taken in the lower Rio Grande. Results of the study will help US Geological Survey researchers understand how these acoustic signals interact with clay- and silt-sized particles.



Erin Gibbons

Erin studies **how evidence of possible past life on Mars may be preserved in the planet's ancient rocks and how it may be detected**. Because clay minerals are important agents of fossil preservation on Earth, Erin is working to develop new techniques to improve our ability to identify and characterize clays on Mars. She is currently exploring an approach known as "data fusion", which integrates geochemical and mineralogical information collected from multiple sensors on the Mars rovers to better understand the geological environment.

Erin hopes that this strategy will contribute to more accurate mineral estimations and help guide the rover to compelling astrobiology sampling sites. She looks forward to the day when we discover extraterrestrial life.

OPEN CALL FOR IAGC EMERGING INVESTIGATOR SERIES

We, the International Association of GeoChemistry (IAGC), are delighted to announce the Emerging Investigators Series in our society's journal, *Applied Geochemistry*. The aim of the series is to highlight excellent work done by independent researchers early in their career and which brings new insights into the field of geochemistry or that promotes geochemical applications. Multidisciplinary work related to applied geochemistry, biogeochemical processes, and environmental geochemistry are also highly welcomed. Featured articles and information about the authors will be extensively advertised to diverse disciplines and communities through multiple platforms of the journal and the IAGC. The selected "emerging investigators" will also be considered as candidates for an early career honor bestowed by the IAGC and be offered editorial engagements with *Applied Geochemistry*.

Application Procedure

Applicants should have completed their PhD (or equivalent degree) within the last 10 years and have an independent career in order to apply to the Emerging Investigators Series. Interested researchers should contact **Editors-in-Chief Michael Kersten** and **Zimeng Wang** with the following information:

1. Up-to-date CV with full name, affiliation, contact information. The CV should be no longer than 3 pages and include education and career, a selected list of publications, professional achievements, honors and awards, and a website featuring the applicant's group (if available).
2. A synopsis of the article intended to be submitted to the series, including a tentative submission date. Please see www.journals.elsevier.com/applied-geochemistry for more information on the manuscript types and instructions to authors. Regular research article, rapid communications, feature articles, and critical reviews are all acceptable to the series.

Reviewing Criteria

Applications will be reviewed by the editors and the advisory board of *Applied Geochemistry* based on the following four criteria: 1) the originality and novelty of the research; 2) the scientific quality of the research; 3) the potential for significant impact; and 4) balancing factors related to inclusion and diversity. The selected applicants will receive a formal invitation from the journal to submit their featured articles. Please note that submitted articles for the series will still undergo the same rigorous peer-review process as regularly submitted papers.

Schedule

This is an ongoing series, and featured articles will continuously be added into the collection of the Emerging Investigator Series and will be displayed on the journal's media pages, on the IAGC website, and across social media platforms.