

ABOUT THIS ISSUE

Stromatolites and other microbialites are remarkable bio-mineralising structures that are abundant throughout Earth's history. Formed in the presence of microbial communities, these bio-sedimentary rocks provide a continuous record of microbial evolution over the last 3.5 billion years. Thus, stromatolites provide unique archives of microbial habitats, revealing their interactions and coevolution with Earth's continents, atmosphere, and life. Stromatolites were first described 120 years ago by the German geologist Ernst Louis Kalkowsky and have recently gained extensive interest across the interdisciplinary fields of the bio-geosciences. Current research is advancing our ability to reconstruct ancient aqueous environ-



Modern stromatolites forming at Hamelin pool in the hypersaline Shark Bay, Western Australia. These biosedimentary archives are present throughout the geological record and offer scientists unique snapshots of microbial evolution and their habitats on Earth and beyond.

ments and their associated microbial communities, shedding light on their role in shaping biogeochemical cycles. Moreover, stromatolites are recognised as possible analogues in the search for extra-terrestrial life within our Solar System.

This issue of *Elements* explores the latest advances in stromatolite and microbialite research from a combined geobiology, mineralogy, and (isotope) geochemistry perspective. This volume underscores the urgent need to protect these endangered microbial ecosystems. It highlights key scientific challenges and pathways ahead to understand how microbial ecosystems respond to environmental changes and to predict their evolution on a fast-changing modern Earth.

ELEMENTS AT GOLDSCHMIDT 2026

The 19th annual Goldschmidt Conference, held in Montréal, Canada, on July 12–17, 2026, was bustling with growing camaraderie and renewed enthusiasm across the geoscience community. *Elements* was honored to host a gallery and information booth alongside the Geochemical Society and the European Association of Geochemistry—Goldschmidt's organizers and two of the 18 participating societies that jointly publish *Elements*.



As always, the conference offered a full week of inspiring presentations, lively discussions, and valuable opportunities to build and renew personal connections within our diverse international community.

Elements feels right at home at Goldschmidt, and we look forward to seeing you again at Goldschmidt 2027 in Paris, France, on July 11–16, 2027!

NEW: DELIVERY TRACKING SYSTEM

Did you know that every issue of *Elements* is distributed to readers in more than 100 countries worldwide? That's great—but where's my magazine?!

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To better support our international readership, *Elements* is launching a user-friendly **Delivery Tracking System**. This allows readers to report delivery information directly to the *Elements* Editorial Team and our international distribution staff, including the date an issue arrived—or whether it did not arrive at all.

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Thank you in advance for helping us improve the delivery of *Elements* around the world. Your support for *Elements* as our community's go-to magazine acts as a renewable resource that fuels the editorial engines to press on and print for generations to come. Keep reading.

Tom Sisson, Carol Frost, Penny King, Matt Kohn, and Esther Posner



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