

Go Mobile

CJO Mobile (CJOm) is a streamlined
Cambridge Journals Online (CJO)
for smartphones and other
small mobile devices



- Use CJOm to access all journal content including *FirstView* articles which are published online ahead of print
- Access quickly and easily thanks to simplified design and low resolution images
- Register for content alerts or save searches and articles – they will be available on both CJO and CJOm
- Your device will be detected and automatically directed to CJOm via: journals.cambridge.org



CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE

JOURNALS

Geological Magazine

Editors

Mark Allen, University of Durham, UK
Graham E. Budd, University of Uppsala, Sweden
Philip Leat, British Antarctic Survey, UK
Andy Whitham, CASP, University of Cambridge, UK

Geological Magazine, established in 1864, is one of the oldest and best-known periodicals in the Earth Sciences. Its worldwide circulation, broad scope and high production values keep the journal at the forefront of the field. It publishes original papers, review articles, rapid communications and discussions about all aspects of the geosciences. It covers petrology, geochemistry, palaeontology, sedimentology, stratigraphy, structural geology, geophysics, and geomorphology, and it includes contributions on volcanology, marine geology, glaciology, palaeoclimatology, palaeoceanography, geochronology, biostratigraphy, geohazards and Earth history, providing a niche for interdisciplinary papers on regional geology and Earth history.

Price information

is available at: <http://journals.cambridge.org/geo>

Free email alerts

Keep up-to-date with new material – sign up at
<http://journals.cambridge.org/geo-alerts>



Geological Magazine

is available online at:
<http://journals.cambridge.org/geo>

To subscribe contact Customer Services

in Cambridge:

Phone +44 (0)1223 326070
Fax +44 (0)1223 325150
Email journals@cambridge.org

in New York:

Phone +1 (845) 353 7500
Fax +1 (845) 353 4141
Email
subscriptions_newyork@cambridge.org

For free online content visit:
<http://journals.cambridge.org/geo>



CAMBRIDGE
UNIVERSITY PRESS

AIMS AND SCOPE

International Journal of Astrobiology publishes original papers and review articles on Astrobiology Science. News of interest to the astrobiology community and book reviews will also feature. Contact one of the editors if you have questions regarding suitability of a subject area, news submission or book review.

The fields covered include:

- * Cosmic prebiotic chemistry
- * Planetary evolution
- * Search for planetary systems and habitable zones
- * Origins, evolution and distribution of life
- * Extremophile biology and experimental simulation of extraterrestrial environments
- * Life detection in our solar system and beyond
- * Technologies and space missions for astrobiology, and planetary protection
- * Human expansion, ecosystems beyond Earth and terraforming
- * Ecosystems beyond Earth
- * Intelligent life and societal aspects of astrobiology

There are no page charges or length restrictions. All articles are submitted to peer-review.

SUBMISSION OF MANUSCRIPTS

Contributions for consideration for publication should be submitted via our online website at http://mc.manuscriptcentral.com/submit_ija

During the submission process authors will be asked to select an appropriate Editor for their paper. Areas of interest for the Editors are as follows:

Dr. Simon Mitton – General Papers, Philosophy, Astronomy

Dr. Rocco Mancinelli – Extremophiles, Microbiology, Nitrogen Cycling

Dr. Frances Westall – Origin of Life in a Geological Context, Search for Life on Mars, Biosignatures of Early Earth Sediments.

The *initial* submission should preferably be in Word or PDF format. If your paper is accepted you will need to submit a Word document with illustrations as separate eps or tif files. LateX files can also be accepted for the final version; however a PDF must also be supplied for printing.

For papers with high resolution figures or micrographs please *also* submit a hard copy version – in colour if appropriate. Black and White halftones and colour illustrations have to be scanned at a high resolution (minimum 300dpi). For very large files contact our production department for further instruction.

Please consult our full Instructions for Contributors at journals.cambridge.org/ija

Central cover image: Courtesy of Space Telescope Science Institute, The Center of Marine Biotechnology, University of Maryland, and NASA.

INTERNATIONAL JOURNAL OF ASTROBIOLOGY

CONTENTS

Editorial

- 1 **The new face of the *International Journal of Astrobiology***
Rocco L. Mancinelli

Research papers

- 3 **Hominid evolution: genetics versus memetics**
Brandon Carter
- 15 **Habitability of super-Earth planets around main sequence stars including red giant branch evolution: models based on the integrated system approach**
M. Cuntz, W. von Bloh, K.-P. Schröder, C. Bounama & S. Franck
- 25 **Climatological characteristics in the extreme hyper-arid region of Pampas de La Joya, Peru. Astrobiological approach in four years of observation: 2004–2008**
Julio E. Valdivia-Silva, Rafael Navarro-González, Lauren Fletcher, Saúl Pérez-Montaño, René Condori-Apaza, Fernando Ortega-Gutiérrez & Christopher McKay
- 37 **Tree-ring dating of meteorite fall in Sikhote-Alin, Eastern Siberia – Russia**
R. Fantucci, Mario Di Martino & Romano Serra
- 43 **On the applicability of solventless and solid-state reactions to the meteoritic chemistry**
Vera M. Kolb
- 51 **Impact of technological synchronicity on prospects for CETI**
Marko Horvat, Anamari Nakić & Ivana Otočan
- 61 **A case for landing on the moon's farside to test nitrogen abundances**
J. Chela-Flores