

Guest Editors: Yves Marrocchi and Pierre Beck

Volume 18, Number 3 • June 2022

Diversity of geological and astrophysical environments where water is present and plays a major role in physical and chemical processes. ARTWORK BY

JEANNE LE PEILLET, BEINK®

Society of America, the Mineralogical Society of the UK and Ireland, the Mineralogical Association of Canada, the Geochemical Society, The Clay Minerals Society, the European Association of Geochemistry, the International Association of Geochemistry, the Société Française de Minéralogie et de Cristallographie, the Association of Applied Geochemists, the Deutsche Mineralogische Gesellschaft, the Società Italiana di Mineralogia e Petrologia, the International Association of Geoanalysts, the Polskie Towarzystwo Mineralogiczne (Mineralogical Society of Poland), the Sociedad Española de Mineralogía, Swiss Geological Society, the Meteoritical Society, the Japan Association of Mineralogical Sciences, and the International Association on the Genesis of Ore Deposits. It is provided as a benefit to members of these

Elements is published jointly by the Mineralogical

Elements is published six times a year. Individuals are encouraged to join any one of the participating societies to receive Elements. Institutional American Mineralogist and The Canadian Mineralogist—also receive one copy of Elements as part of their subscription. Institutional subscriptions are available for US\$180 (US\$195 non-US addresses) a year in 2022. Contact the executive editor (editorialteam.elements@gmail.com) for information.

Copyright 2022 by the Mineralogical Society of America.

All rights reserved. Reproduction in any form, including translation to other languages, or by any means—graphic, electronic, or mechanical, including photocopying or information storage and retrieval systems—without written permission from the copyright holder is strictly prohibited.

Publications mail agreement no. 40037944

Printed in USA

ISSN 1811-5209 (print) ISSN 1811-5217 (online)

elementsmagazine.org pubs.geoscienceworld.org/elements





MIX Paper from FSC® C006300



















The Quest For Water

Water in Planetary Bodies

Yves Marrocchi and Pierre Beck



We Drink Good 4.5-Billion-Year-Old Water

Cecilia Ceccarelli and Fujun Du



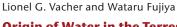
Ocean Worlds In Our Solar System Julie C. Castillo-Rogez and Klára Kalousová



Water in Differentiated Planets, the Moon, and Asteroids Anne H. Peslier and Maria Cristina de Sanctis



Recent Advances in our Understanding of Water and Aqueous Activity in Chondrites







DEPARTMENTS

Editorial - One Mineral to Rule Them All
From the Editors
Meet the Authors145
Perspective
Society News
Japan Association of Mineralogical Sciences
European Association of Geochemistry
Geochemical Society
Mineralogical Society of America
Association Internationale pour l'Étude des Argiles 194
Association of Applied Geochemists
Mineralogical Association of Canada
Mineralogical Society of Poland
Société Française de Minéralogie et de Cristallographie 201
Meteoritical Society
Deutsche Mineralogische Gesellschaft 204
European Mineralogical Union
International Association of GeoChemistry
The Clay Minerals Society
Mineralogical Society of the UK and Ireland 208
Sociedad Española de Mineralogía 209
A Life in Science 210
Calendar 212
Advertisers in this Issue 212