



geosciences

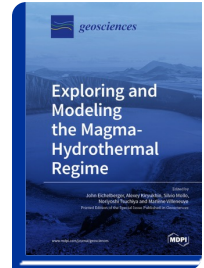


Special Issue Reprint

Exploring and Modeling the Magma-Hydrothermal Regime

www.mdpi.com/books/reprint/2782

Edited by
John C. Eichelberger
Alexey Kiryukhin
Silvio Mollo
Noriyoshi Tsuchiya
Marlène Villeneuve



ISBN 978-3-03936-636-1 (Hardback)

ISBN 978-3-03936-637-8 (PDF)

This Special Issue comprises 12 papers from authors in 10 countries with new insights on the close coupling between magma as an energy and fluid source with hydrothermal systems for the primary control of magmatic behavior. Data and interpretation are provided on the rise of magma through a hydrothermal system, the relative timing of magmatic and hydrothermal events, the temporal evolution of supercritical aqueous fluids associated with ore formation, the magmatic and meteoric contributions of water to the systems, the big picture for the highly active Krafla Caldera, Iceland, as well as the implications of results from drilling at Krafla concerning the magma–hydrothermal boundary. Some of the more provocative concepts are that magma can intrude a hydrothermal system silently, that coplanar and coeval seismic events signal “magma fracking” beneath active volcanoes, that intrusive accumulations may far outlast volcanism, that arid climate favors formation of large magma chambers, and that even relatively dry rhyolite magma can rapidly convect and so lack a crystallizing mush roof. A shared theme is that hydrothermal and magmatic reservoirs need to be treated as a single system.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/2782

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.