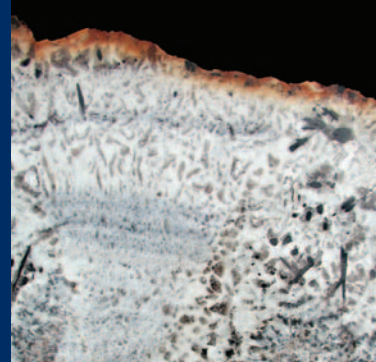


# Elements

An International Magazine of Mineralogy, Geochemistry, and Petrology



Volume 8, Number 4 • August 2012

*Elements* is published jointly by the Mineralogical Society of America, the Mineralogical Society of Great Britain 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, the Swiss Society of Mineralogy and Petrology, the Meteoritical Society, and the Japan Association of Mineralogical Sciences. It is provided as a benefit to members of these societies.

*Elements* is published six times a year. Individuals are encouraged to join any one of the participating societies to receive *Elements*. Institutional subscribers to any of the following journals—*American Mineralogist*, *Clay Minerals*, *Clays and Clay Minerals*, *Mineralogical Magazine*, and *The Canadian Mineralogist*—also receive one copy of *Elements* as part of their 2012 subscription. Institutional subscriptions are available for US\$160 (US\$175 non-US addresses) a year in 2012. Contact the managing editor (tremblpi@ete.inrs.ca) for information.

Copyright 2012 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)

[www.elementsmagazine.org](http://www.elementsmagazine.org)

[www.elements.geoscienceworld.org](http://www.elements.geoscienceworld.org)

 **GeoScienceWorld**  
Participating Publisher



## Granitic Pegmatites

Guest Editors: **David London and Daniel J. Kontak**



### Granitic Pegmatites: Scientific Wonders and Economic Bonanzas

David London and Daniel J. Kontak



### The Pegmatite Puzzle

David London and George B. Morgan VI



### Granitic Pegmatites: Storehouses of Industrial Minerals

Alexander S. Glover, William Z. Rogers, and James E. Barton



### Granitic Pegmatites as Sources of Strategic Metals

Robert L. Linnen, Marieke Van Lichtenvelde, and Petr Černý



### Granitic Pegmatites as Sources of Colored Gemstones

William B. Simmons, Federico Pezzotta, James E. Shigley, and Hartmut Beurlen



### Granitic Pegmatites as Reflections of Their Sources

Petr Černý, David London, and Milan Novák

**ABOUT THE COVER:** This rock section (24 × 23 cm) from Ramona, California (USA), illustrates the textural complexities of pegmatites.

A mushroom-shaped, Manebach-twinned pair of giant K-feldspar crystals (banded and white) grew upward in a graphic intergrowth with quartz (gray). The interstitial matrix consists of quartz, plagioclase (white), and tourmaline (blue-black). Bands of fine-grained (light blue) and coarse (blue-black) tourmaline transect the graphic feldspar-quartz intergrowth and the matrix.

These bands of tourmaline (also referred to as phantoms) denote the shape and location of the crystallization front as it advanced into the magma body from the lower (footwall) contact. PHOTO: DAVID LONDON

## DEPARTMENTS

<b>Editorial</b> – Migma versus Magma . . . . .	<b>243</b>
<b>From the Editors</b> – Editorial Meeting . . . . .	<b>244</b>
<b>Triple Point</b> – Selling our Science . . . . .	<b>245</b>
<b>People in the News</b> – Brantley, Carlson, Dove, Sherwood Lollar . . . . .	<b>246</b>
<b>Perspective</b> – Cold Pegmatites . . . . .	<b>248</b>
<b>The Elements Toolkit</b> – X-Ray Tomography . . . . .	<b>251</b>
<b>Meet the Authors</b> . . . . .	<b>254</b>
<b>Society News</b>	

International Association of Geoanalysts . . . . .	295
International Association of Geochemistry . . . . .	296
Società Italiana di Mineralogia e Petrologia . . . . .	297
Mineralogical Society of Great Britain and Ireland . . . . .	298
Société Française de Minéralogie et de Cristallographie . . . . .	299
Mineralogical Society of America . . . . .	300
Association of Applied Geochemists . . . . .	302
Deutsche Mineralogische Gesellschaft . . . . .	303
Japan Association of Mineralogical Sciences . . . . .	304
The Clay Minerals Society . . . . .	305
Meteoritical Society . . . . .	306
European Association of Geochemistry . . . . .	307
Mineralogical Association of Canada . . . . .	308
European Mineralogical Union . . . . .	309
Geochemical Society . . . . .	310
<b>Meeting Report</b> – Goldschmidt 2012 . . . . .	<b>311</b>
<b>A Life in Science</b> – Writing Your First Proposal . . . . .	<b>313</b>
<b>Book Review</b> – Granites and Granites . . . . .	<b>314</b>
<b>Calendar</b> . . . . .	<b>316</b>
<b>Parting Shots</b> – Strange Granites; Maine Pegmatites . . . . .	<b>317</b>
<b>Advertisers in This Issue</b> . . . . .	<b>320</b>