

Elements

An International Magazine of Mineralogy, Geochemistry, and Petrology

June 2009
Volume 5, Number 3

ISSN 1811-5209

Gems

EMMANUEL FRITSCH and BENJAMIN RONDEAU, Guest Editors

Gemology: A Developing Science

Gem Formation, Production,
and Exploration

Geochemistry of Gems

Identifying Faceted
Gemstones

Synthetic Gems

Laboratory-Treated
Gemstones

Pearls and Corals:
“Trendy Biomineralizations”

3511

EBSCO

INSTITUTO CS. TIERRA

ORDER #: B0147780

76550650471670003/GB

FB-73475-19 B0147780

ILS: 1304

ELEMENTS : AN INTERNATIONAL MAGAZINE OF MINERALOGY GEOCHEMIS

2009 VOLUME :5 ISSUE :3

SISAC

1811-5209(20090601)5:3:1-6

Elements

An International Magazine of Mineralogy, Geochemistry, and Petrology



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 for 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, and the Swiss Society of Mineralogy and Petrology. 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*—will also receive *Elements* as part of their 2009 subscription. Institutional subscriptions are available for US\$150 a year in 2009. Contact the managing editor (tremlipi@ete.inrs.ca) for information.

Copyright 2009 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

Return undeliverable
Canadian addresses to:
PO Box 503
RPO West Beaver Creek
Richmond Hill, ON L4B 4R6

Printed in Canada
ISSN 1811-5209 (print)
ISSN 1811-5217 (online)

www.elementsmagazine.org

Volume 5, Number 3 • June 2009

Gems

Emmanuel Fritsch and Benjamin Rondeau, Guest Editors



Gemology: The Developing Science of Gems

Emmanuel Fritsch and Benjamin Rondeau



Gem Formation, Production, and Exploration: Why Gem Deposits Are Rare and What Is Being Done to Find Them

Lee A. Groat and Brendan M. Laurs



The Geochemistry of Gems and Its Relevance to Gemology: Different Traces, Different Prices

George R. Rossman



The Identification of Faceted Gemstones: From the Naked Eye to Laboratory Techniques

Bertrand Devouard and Franck Notari



Seeking Low-Cost Perfection: Synthetic Gems

Robert E. Kane



Laboratory-Treated Gemstones

James E. Shigley and Shane F. McClure



Pearls and Corals: "Trendy Biomineralizations"

Jean-Pierre Gauthier and Stefanos Karampelas

Departments

Editorial – Gems, Riches, Wealth and Finance	139
From the Editors – <i>Elements</i> and GeoScienceWorld	140
Letter to the Editors	140
Triple Point – Asbestos <i>Sans</i> Mineralogy	141
People in the News – Boatner, Farfan, Hawthorne	142
Obituaries – Deines, Rösler	144
Meet the Authors	145
Society News	
International Association of Geoanalysts	181
Mineralogical Society of Great Britain and Ireland	182
Geochemical Society	184
The Clay Minerals Society	185
Mineralogical Society of America	186
Mineralogical Association of Canada	188
Deutsche Mineralogische Gesellschaft	190
Mineralogical Society of Poland	191
Société Française de Minéralogie et de Cristallographie	192
Meeting Reports – Applied Mineralogy Meeting, MSA–GS short course	193
Outreach – Why Teach Mineralogy?	196
Book Reviews – <i>LA–ICP–MS in the Earth Sciences</i>	197
Calendar	198
Parting Shots – Gaga over Gemstones	200
Advertisers in this Issue	200

