

Elements

An International Magazine of Mineralogy, Geochemistry, and Petrology

Volume 7, Number 4 • August 2011

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 Mineralogia, the Swiss Society of Mineralogy and Petrology, and the Meteoritical Society. 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 2011 subscription. Institutional subscriptions are available for US\$160 (US\$175 non-US addresses) a year in 2011. Contact the managing editor (tremblpi@ete.inrs.ca) for information.

Copyright 2011 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

www.elements.geoscienceworld.org



When the Continental Crust Melts

Guest Editors: Edward W. Sawyer, Bernardo Cesare, and Michael Brown



When the Continental Crust Melts

Edward W. Sawyer, Bernardo Cesare, and Michael Brown



How Does the Continental Crust Get Really Hot?

Chris Clark, Ian C. W. Fitzsimons, David Healy, and Simon L. Harley



Is the Crucible Reproducible? Reconciling Melting Experiments with Thermodynamic Calculations

Richard W. White, Gary Stevens, and Timothy E. Johnson



Melted Rocks under the Microscope: Microstructures and Their Interpretation

Marian B. Holness, Bernardo Cesare, and Edward W. Sawyer



Crustal Melting and the Flow of Mountains

Rebecca A. Jamieson, Martyn J. Unsworth, Nigel B. W. Harris, Claudio L. Rosenberg, and Karel Schulmann



Organizing Melt Flow through the Crust

Michael Brown, Fawna J. Korhonen, and Christine S. Siddoway

ABOUT THE COVER:
Spider Wall on the south face of Nuptse (the summit ridge is at ~7650 m, and the wall is ~1700 m in height), showing a network of leucogranite dykes in metasedimentary rocks of the Everest Series (centre) above the Nuptse leucogranite, visible at the bottom left and right. Leucogranites emplaced in the shallow crust are the end product of melting of the deep crust in orogenic belts. The view is from Pokalde Peak in the Khumbu Himalaya, Nepal.
IMAGE COURTESY OF MICAH JESSUP, UNIVERSITY OF TENNESSEE, USA

DEPARTMENTS

Editorial – Is Science a Contact Sport?	219
From the Editors – John Valley, Principal Editor 2012–2014.	220
The Elements Toolkit – Smashing Up Stones	221
People in the News – Williams-Jones, Ferry, Stolper.	222
Meet the Authors	226
Society News	
Swiss Society of Mineralogy and Petrology.	267
Association of Applied Geochemists	268
Mineralogical Society of Great Britain and Ireland	269
International Association of Geochemistry.	270
European Association of Geochemistry	271
The Clay Minerals Society.	272
The Meteoritical Society	273
Mineralogical Society of America	274
International Association of Geoanalysts.	276
Société Française de Minéralogie et de Cristallographie	277
Geochemical Society.	278
Mineralogical Association of Canada	280
Book Review – <i>Timescales of Magmatic Processes</i>	282
Meeting Report – Making Science Matter	284
Calendar	285
Advertisers in This Issue	286
Parting Shots – Standing Stones	288

