



ABOUT THE COVER:

Advanced Photon

Source (APS) at the

US Department of

Energy's Argonne

National Laboratory

in Argonne, Illinois

(USA). The APS is one

of many synchrotron

radiation facilities

around the world

open to scientists

and students who

have a need for

brilliant photon

beams in their

research. Рното

COURTESY OF THE APS

Main entrance of the

Volume 2, Number 1 • February 2006

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, and the Société Française de Minéralogie

et de Cristallographie. 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, The Canadian Mineralogist, Clays and Clay Minerals, Mineralogical Magazine, and Clay Minerals—will also receive Elements as part of their 2006 subscription. Institutional subscriptions are available for US\$125 a year in 2006. Contact the managing editor (tremblpi@ete.inrs.ca) for information.

Copyright ©2006 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 www.elementsmagazine.org





















## User Research Facilities in the Earth Sciences

**Stephen R. Sutton**, Guest Editor



**User Facilities around the World**Gordon E. Brown Jr., Stephen R. Sutton, and Georges Calas

15

Synchrotron Radiation, Neutron, and Mass Spectrometry Techniques at User Facilities Stephen R. Sutton, Marc W. Caffee, and Martin T. Dove

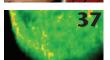


## Scientific Advances Made Possible by User Facilities

Gordon E. Brown Jr., Georges Calas, and Russell J. Hemley



Accessing User Facilities and Making your Research Experience Successful Richard J. Reeder and Antonio Lanzirotti



## **New Opportunities at Emerging Facilities**

John B. Parise and Gordon E. Brown Jr.

## Departments

Editorial
From the Editors
<b>Triple Point</b>
Meet the Authors
Travelogue
Mineral Matters
Society News
Société Française de Minéralogie et de Cristallographie 44
European Association for Geochemistry 46
Mineralogical Society of Great Britain and Ireland 48
The Clay Minerals Society 50
International Association of GeoChemistry 52
Mineralogical Society of America 54
Geochemical Society
Mineralogical Association of Canada 58
International Mineralogical Association 60
European Mineralogical Union
Conference News
Calendar
<b>Parting Shot</b>
Advertisers in this Issue