# JOURNAL OF ALLOYS AND COMPOUNDS

(Formerly Journal of the Less-Common Metals)

#### Editor-in-Chief

Professor K. H. J. Buschow

Van der Waals-Zeeman Laboratorium Universiteit van Amsterdam Valckenierstraat 65 1018 XE Amsterdam, Netherlands Fax: +31 (20) 525 5788

e-mail: buschow@science.uva.nl

### **Editors**

Professor H. Kleinke

Dept. of Chemistry University of Waterloo Waterloo, Ontario N2L 3G1 Canada

Tel.: +1 (519) 885 1211 Fax: +1 (519) 746 0435 e-mail: jalcom@uwaterloo.ca

#### Professor H.G. Pan

Department of Materials Science and Engineering Zhejiang University Hangzhou 310029 P.R. China Tel. & Fax: +86 (571) 87952615

e-mail: Honggepan@zju.edu.cn

## Professor H. Sakaguchi

Department of Materials Science Tottori University Minami 4-101, Koyama-cho Tottori 680-0945 Japan

Tel. & Fax: +81 (857) 31 5265 e-mail: sakaguch@chem.tottori-u.ac.jp

## **Honorary Editors** Professor G.-Y. Adachi

Osaka University Faculty of Engineering Dept. of Applied Chemistry Yamadakami/Suita Osaka 565, Japan

## Professor H. F. Franzen

Iowa State University Dept. of Chemistry & Ames Lab Ames, IA 50011, USA

#### Professor G. J. Miller

Iowa State University Dept. of Chemistry Ames, IA 50011, USA

#### Professor Ch. J. Raub

Waldsiedlung 17 D-73525 Schwäbisch Gmünd Germany

### Professor H. Uchida

Dept. of Applied Physics School of Engineering Tokai University 1117 Kita-Kaname Hiratsuka-City Kanagawa 259-1292

## **Editorial Advisory Board**

A. V. Andreev

Institute of Physics Academy of Sciences Na Slovance 2 18221 Prague 8, Czech Republic

## F. J. Di Salvo

Cornell University **Baker Laboratory** Dept. of Chemistry Ithaca, NY 14853, USA

### J. Etourneau

Université de Bordeaux I Institut de Chimie de la Matiére Condensée de Bordeaux (ICMCB), CNRS 351 cours de la Libération F-33405 Talence Cedex, France

### T. B. Flanagan

The University of Vermont Dept. of Chemistry Cook Physical Science Bldg. Burlington, VT 05405, USA

### F. H. Froes

Institute for Materials and Advanced Processing

University of Idaho Moscow, ID 83843-4140, USA

### D. Gignoux

Laboratoire Louis Néel C.N.R.S., B.P. 166X 38042 Grenoble Cedex France

Max-Planck-Institut für Chemische Physik fester Stoffe Nothnitzer Str. 40 D-01187 Dresden, Germany

## I. R. Harris

University of Birmingham Dept. Phys. Metallurgy & Sci. Edgbaston Birmingham B15 2TT, UK

#### D. C. Johnson

Dept. of Chemistry University of Oregon Eugene, OR 97403, USA

### M. G. Kanatzidis

Michigan State University Dept. of Chemistry East Lansing, MI 48824-1322, USA

## A. P. Miodownik

University of Surrey Dept. of Materials Science & Eng. Guildford, Surrey GU2 5XH, UK

# E. J. Mittemeijer

Max Planck Institute for Metals Research Heisenbergstrasse 3 D-70569 Stuttgart, Germany

## R. Nesper

Anorganisch Chemie ETH Zentrum, CAB C18.2 8092 Zurich, Switzerland

#### D. E. Peterson

Los Alamos National Laboratory Superconductivity Technology Center Mailstop K763 Los Alamos, NM 87545, USA

## K. R. Poeppelmeier

Northwestern University Dept. of Chemistry 2145 Sheridan Road Evanston, IL 60208-3113, USA

IFW Dresden e.V. Institut für Metallische Werkstoffe Postfach D-01171 Dresden, Germany

V. Sechovsky
Department of Electronic Structures Faculty of Mathematics and Physics Charles University Ke Karlovu 5 121 16 2 Prague 2 Czech Republic

## W. Stręk

Institute of Low Temperature and Structure Research PAN, P.O. Box 1410 50-950 Wrocław Poland

### K. Suzuki

Advanced Institute of Materials Science Moniwadai 2-6-8 Taihaku-ku Sendai 982-0252, Japan

## T. Yamase

Tokyo Inst. of Technology 4259 Nagatsuda, Midoriku Yokohama 227, Japan

## H. Zur Loye

Department of Chemistry/ Biochemistry University of South Carolina Columbia, SC 29208, USA

Papers and communications should be concerned with the chemistry, metallurgy, physics or inter-related aspects of alloys and compounds or their applications.

## **Types of Contributions**

- original research work not already published
- plenary lectures and/or individual papers given at conferences
- review articles; authors should first consult one of the Editors
- letters

Contributions are accepted on the understanding that the authors have obtained any necessary authority for publication.

**Publication information:** *Journal of Alloys and Compounds* (ISSN 0925-8388). For 2008, volumes 446–466 are scheduled for publication. Subscription prices are available upon request from the Publisher or from the Regional Sales Office nearest you or from this journal's website (http://www.elsevier. com/locate/jallcom). Further information is available on this journal and other Elsevier products through Elsevier's website (http://www.elsevier.com). Subscriptions are accepted on a prepaid basis only and are entered on a calendar year basis. Issues are sent by standard mail (surface within Europe, air delivery outside Europe). Priority rates are available upon request. Claims for missing issues should be made within six months of the date of dispatch.

Orders, claims, and journal enquiries: please contact the Customer Service Department at the Regional Sales Office nearest you:

Orlando: Elsevier, Customer Service Department, 6277 Sea Harbor Drive, Orlando, FL 32887-4800, USA; phone: (+1) (877) 8397126 or (+1) (800) 6542452 [toll free numbers for US customers]; (+1) (407) 3454020 or (+1) (407) 3454000 [customers outside US]; fax: (+1) (407) 3631354 or (+1) (407) 3639661; e-mail: usics@elsevier.com or elspcs@elsevier.com

Printed by Krips bv, Meppel, The Netherlands

Amsterdam: Elsevier, Customer Service Department, PO Box 211, 1000 AE Amsterdam, The Netherlands; phone: (+31) (20) 4853757; fax: (+31) (20) 4853432; e-mail: nlinfo-f@elsevier.com

Tokyo: Elsevier, Customer Service Department, 4F Higashi-Azabu, 1-Chome Bldg, 1-9-15 Higashi-Azabu, Minato-ku, Tokyo 106-0044, Japan; phone: (+81) (3) 5561 5037; fax: (+81) (3) 5561 5047; e-mail: jp.info@elsevier.com

Singapore: Elsevier, Customer Service Department, 3 Killiney Road, #08-01 Winsland House I, Singapore 239519; phone: (+65) 63490222; fax: (+65) 67331510; e-mail: asiainfo@elsevier.com

**USA mailing notice:** *Journal of Alloys and Compounds* (ISSN 0925-8388) is published semimonthly by Elsevier B.V. (P.O. Box 211, 1000 AE Amsterdam, The Netherlands). Annual subscription price in the USA US\$ 11,986 (valid in

North, Central and South America), including air speed delivery. Periodicals postage paid at Rahway NJ and additional mailing offices.

USA POSTMASTER: Send change of address to *Journal of Alloys and Compounds*, Elsevier, 6277 Sea Harbor Drive, Orlando, FL 32887-4800.

AIRFREIGHT AND MAILING in the USA by Mercury International Limited, 365, Blair Road, Avenel, NJ 07001.

Advertising information: Advertising orders and enquiries can be sent to: USA, Canada and South America: Mr Tino DeCarlo, The Advertising Department, Elsevier Inc., 360 Park Avenue South, New York, NY 10010-1710, USA; phone: (+1) (212) 633 3815; fax: (+1) (212) 633 3820; e-mail: t.decarlo@elsevier.com. **Japan:** The Advertising Department, Elsevier K.K., 4F Higashi-Azabu, 1-Chome Bldg, 1-9-15 Higashi-Azabu, Minato-ku, Tokyo 106-0044, Japan; phone: (+81) (3) 5561 5037; fax: (+81) (3) 5561 5047; e-mail: jp.info@elsevier.com. Europe and ROW: Katrina Barton, Print Operations Co-ordinator, Elsevier, 84 Theobalds Road, London, WC1X 8RR, UK; phone: (+44) 20 7611 4117; fax: (+44) 20 7611 4463; e-mail: k.barton@elsevier.com