

# 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 J. Chan**  
Dept. of Chemistry  
Louisiana State University  
613 Choppin Hall, Baton Rouge  
LA 70803, USA  
Tel: (225) 578-2695  
Fax: (225) 578-3458  
email: jalcom@lsu.edu

## 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

## Professor L. Schultz

Leibniz -Institut fuer Festkoerper- und  
Werkstoffforschung (IFW) Dresden  
Helmholtzstrasse  
20D-01069 Dresden, Germany  
Tel: +49-351-4659-100  
Fax: +49-351-4659-500  
e-mail: l.schultz@ifw-dresden.de

## Professor H. Zur Loye

Department of Chemistry/Biochemistry  
University of South Carolina  
Columbia, SC 29208, USA  
Tel: 803-777-6916  
Fax: 803-777-8508  
e-mail: JALCOM@mailbox.sc.edu

## 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 Nuclear Engineering  
School of Engineering  
Tokai University  
4-1-1 Kita-Kaname  
Hiratsuka-City  
kanagawa 259-1292  
Japan

## Editorial Advisory Board

**A. V. Andreev**  
Institute of Physics  
Academy of Sciences  
Na Slovance 2  
18221 Prague 8, Czech Republic

### A. Dahle

Materials Engineering  
Room 415, Bldg 43,  
University of Queensland  
Brisbane Qld 4072  
Australia

### F. J. Di Salvo

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

### T. B. Flanagan

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

### J. Huot

Hydrogen Research Institute  
Université du Québec à Trois-Rivières  
G9A 5H7, Trois-Rivières  
Québec, Canada

### D. C. Johnson

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

### E. J. Mittemeijer

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

### Y. Mozharivskyj

ABB 423, Department of Chemistry and  
Chemical Biology, McMaster University,  
1280 Main Street West,  
Hamilton, Ontario, Canada,  
L8S 4M1

### 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

## H. Sato

Dept. of Physics  
Tokyo Metropolitan University  
Tokyo 192-0397  
Japan

## 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

## I. Van Driessche

Department of Inorganic and Physical  
Chemistry,  
Ghent University,  
Sint-Pietersnieuwstraat 25, B-9000,  
Ghent, Belgium

## T. G. Woodcock

IFW Dresden  
P.O. Box 270116  
01171 Dresden  
Germany

## T. Yamase

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

## C.-L. Yeh

Dept. of Aerospace and Systems  
Engineering  
Feng Chia University  
40724 Taichung  
Taiwan

## Scope

The *Journal of Alloys and Compounds* is intended to serve as an international medium for the publication of work on solid materials comprising compounds as well as alloys. Its great strength lies in the diversity of discipline which it encompasses, drawing together results from materials science, solid-state chemistry and physics. The interdisciplinary nature of the journal is evident in many subject areas. Experimental and theoretical approaches to materials problems require an active interplay between a variety of traditional and novel scientific disciplines. In much of the work published in the journal, synthetic and structural studies are combined with investigations of chemical and physical properties of alloys and compounds, contributing to the development of areas of current scientific interest. Papers submitted for publication should contain new experimental or theoretical results. The *Journal of Alloys and Compounds* provides a unique international forum where materials scientists, chemists and physicists can present their results both to workers in their own fields and to others active in related areas.

The journal will not consider topics on casting, liquid alloys, wear, creep, welding, conducting polymers, purely synthetic papers without any properties, coordination chemistry, ionic liquids, catalysis, biochemistry, and organic materials. The submission of purely synthetic papers without any properties is not encouraged.

**Publication information:** *Journal of Alloys and Compounds* (ISSN 0925-8388). For 2012, volumes 510-545 are scheduled for publication. Subscription prices are available upon request from the Publisher or from the Elsevier Customer Service Department 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 Elsevier Customer Service Department nearest you:

**St. Louis:** Elsevier Customer Service Department, 3251 Riverport Lane, Maryland Heights, MO 63043, USA; phone: (877) 8397126 [toll free within the USA]; (+1) (314) 4478878 [outside the USA]; fax: (+1) (314) 4478077; e-mail: [JournalCustomerService-usa@elsevier.com](mailto:JournalCustomerService-usa@elsevier.com)

**Oxford:** Elsevier Customer Service Department, The Boulevard, Langford Lane, Kidlington, Oxford OX5 1GB, UK; phone: (+44) (1865) 843434; fax: (+44) (1865) 843970; e-mail: [JournalsCustomerServiceEMEA@elsevier.com](mailto:JournalsCustomerServiceEMEA@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: [JournalsCustomerServiceJapan@elsevier.com](mailto:JournalsCustomerServiceJapan@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: [JournalsCustomerServiceAPAC@elsevier.com](mailto:JournalsCustomerServiceAPAC@elsevier.com)

**Advertising information:** If you are interested in advertising or other commercial opportunities please e-mail [Commercialsales@elsevier.com](mailto:Commercialsales@elsevier.com) and your enquiry will be passed to the correct person who will respond to you within 48 hours.