

Zeitschrift für Kristallographie

International Journal for Structural, Physical,
and Chemical Aspects of Crystalline Materials

Volume 196 No. 1–4 1991

General Aspects

H. Jagodzinski	Diffraction from the Fibonacci chain	1
M. O'Keeffe	Dense and rare four-connected nets	21
H. Nyman, C. E. Carroll, B. G. Hyde	Rectilinear rods of face-sharing tetrahedra and the structure of β -Mn	39
S. Haussühl	Physical properties of phthalic acid and of eight salts of phthalic acid with monovalent cations	47
J. Keyn, P. Paufler	On the choice of free parameters of spinel type compounds	61
R. J. Hill, I. C. Madsen	Rietveld analysis using para-focusing and Debye- Scherrer geometry data collected with a Bragg- Brentano diffractometer	73
H. Müller, L. Skala	Interpolation formulae for describing size depend- ence of properties of clusters and finite systems	93

Inorganic Crystal Structures

M. L. Fornasini, A. Palenzona	The crystal structure of $\text{Ce}_{18}\text{Ru}_9$	105
M. François, W. Lengauer, K. Yvon, H. Ben Yaich-Aerrache, P. Gougeon, M. Potel, M. Sergent	Structural phase transition in GaMo_4S_8 by X-ray powder diffraction	111

(Continuation see cover p. 3 and 4)



R. Oldenbourg Verlag · München

Z. Kristallogr. 196, 1–328 (1991) Indexed in Current Contents ISSN 0044-2968

Zeitschrift für Kristallographie

International Journal for Structural, Physical,
and Chemical Aspects of Crystalline Materials

Editors-in-Chief: H. Schulz, H. G. von Schnering.
With the assistance of W. Hönle

Editorial Board: G. Bergerhoff, E. F. Bertaut, M. L. Fornasini, H. Fuess,
M. Hart, P. Hartman, S. Haussühl, E. Hellner, R. J. Hill,
K. Huml, Jiang Min-hua, F. Liebau, E. Parthé,
P. Paufler, S. Rundqvist, L. A. Shuvalov, Y. Takéuchi

Please send manuscripts to one of the following addresses:

- | | |
|---|--|
| Professor
Dr. G. Bergerhoff | Institut für Anorganische Chemie, Universität Bonn
Gerhard-Domagk-Straße 1, D-5300 Bonn 1, F.R.G. |
| Professor Dr.
Dr. h.c. E. F. Bertaut | Laboratoire de Cristallographie, CNRS Grenoble, 25, Avenue
des Martyrs, B.P. 166X, Centre de Tri, F-38042 Grenoble Cedex. France |
| Professor
Dr. M. L. Fornasini | Università di Genova, Istituto di Chimica Fisica
Corso Europa 26, I-16132 Genova. Italy |
| Professor
Dr. H. Fuess | Fachbereich Materialwissenschaften, Fachgebiet Strukturforschung,
Technische Hochschule Darmstadt, Petersenstr. 20,
D-6100 Darmstadt. F.R.G. |
| Professor
Dr. M. Hart FRS | Department of Physics, Schuster Laboratory
The University, Manchester M13 9PL. U.K. |
| Professor
Dr. P. Hartman | Instituut voor Aardwetenschappen
Budapestlaan 4, Postbus 80.021, NL-3508 TA Utrecht. Netherlands. |
| Professor
Dr. S. Haussühl | Institut für Kristallographie, Universität Köln
Zülpicher Straße 49, D-5000 Köln 1. F.R.G. |
| Professor
Dr. E. Hellner | FB Geowissenschaften
Lahnberge, D-3550 Marburg/Lahn. F.R.G. |
| Dr. R. J. Hill | CSIRO Division of Mineral Products,
P.O. Box 124, Port Melbourne, Victoria 3207. Australia |
| Dr. W. Hönle | Max-Planck-Institut für Festkörperforschung
Heisenbergstraße 1, D-7000 Stuttgart 80. F.R.G. |
| Professor
Dr. K. Huml | Institute of Macromolecular Chemistry, Czechoslovak
Academy of Sciences, CSSR-16206 Prague 6. Czechoslovakia. |
| Professor
Jiang Min-hua | Institute of Crystal Materials, Shandong University
Jinan Shandong. PRC |
| Professor
Dr. F. Liebau | Mineralogisch-Petrographisches Institut
Olshausenstraße 40–60, D-2300 Kiel. F.R.G. |
| Professor
Dr. Dr. h.c. E. Parthé | Laboratoire de Cristallographie aux Rayons X, Université de Genève.
24 quai Ernest Ansermet, CH-1211 Genève. Switzerland. |
| Professor
Dr. P. Paufler | Universität Leipzig, Sektion Chemie, Wissenschaftsbereich
Kristallographie, Scharnhorststr. 20, O-7030 Leipzig. F.R.G. |
| Professor
St. Rundqvist | University of Uppsala, Institute of Chemistry
Box 531, S-751 21 Uppsala 1. Sweden. |
| Professor Dr. Dr. h.c.
H. G. von Schnering | Max-Planck-Institut für Festkörperforschung
Heisenbergstraße 1, D-7000 Stuttgart 80. F.R.G. |
| Professor
Dr. H. Schulz | Institut für Kristallographie und Mineralogie der Universität
München, Theresienstraße 41, D-8000 München 2. F.R.G. |
| Professor
Dr. L. A. Shuvalov | Institute of Crystallography, Academy of Sciences of the USSR
Leninsky pr. 59, Moscow 117333. U.S.S.R. |
| Professor
Dr. Y. Takéuchi | Department of Earth Sciences, NIHON University 3-25-40 Sakurajosui,
Setagayaku, Tokyo 156, Japan, Telex: Nichidai J 29496 |
-

Zeitschrift für Kristallographie

International Journal for Structural, Physical,
and Chemical Aspects of Crystalline Materials

Editors-in-Chief: H. Schulz, H. G. von Schnering.

With the assistance of W. Hönlé

Editorial Board: G. Bergerhoff, E. F. Bertaut, M. L. Fornasini, H. Fuess,
M. Hart, P. Hartman, S. Haussühl, E. Hellner, R. J. Hill,
K. Huml, Jiang Min-hua, F. Liebau, E. Parthé,
P. Paufler, S. Rundqvist, L. A. Shuvalov, Y. Takéuchi

Volume 196 1991



R. Oldenbourg Verlag · München

Copyright. It is a general condition that submitted manuscripts have not been published and will not – without written consent by the publishers – be submitted or published elsewhere. By submitting a manuscript, the authors agree that the copyright for their article is transferred to the publisher if and when the article is accepted for publication. The copyright covers the exclusive rights to reproduce and distribute the article, including reprints, photographic reproduction, microform or any other reproductions of similar nature, and translations. Photographic reproduction, microform, or any other reproduction of text, figures, or tables from this journal is not allowed without permission obtained from the publisher.

The use of general descriptive names, trade marks etc. in this publication, even if the former are not specifically identified, is not to be taken as a sign that such names are exempt from the relevant protective laws and regulations and may accordingly be used freely by anyone. Authors are requested to present copyright releases of published materials used in their contributions.

Copyright in the USA: The appearance of the code at the top of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This authorization to photocopy items is granted for users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of \$3.00 per copy is paid directly to CCC, 27 Congress St., MA 01970. For those organizations that have been granted a photocopy license by CCC, a separate system of payment has been arranged.

The fee code for users of the Transactional Reporting Service is: 0044-2968.

This consent is given for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale.

Herstellung: Wiesbadener Graphische Betriebe GmbH, Wiesbaden