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Subvolume B2: Inorganic substances other than oxides

$(\text{NH}_4)_2\text{SO}_4$ family ... $\text{K}_3\text{BiCl}_6 \cdot 2\text{KCl} \cdot \text{KH}_3\text{F}_4$

Editors: Y. Shiozaki, E. Nakamura, T. Mitsui

Authors:

E. Nakamura, M. Adachi, Y. Akishige, T. Asahi, K. Deguchi, T. Furukawa,
K. Gesi, K. Hasebe, T. Hikita, Y. Iwata, M. Komukae, T. Mitsui, N. Nakatani,
R. Nozaki, T. Osaka, Y. Shiozaki, T. Yagi



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Editors

Shiozaki, Yoichi
Hokkaido University, Sapporo, Japan

Nakamura, Eiji
Hiroshima University, Higashi-Hiroshima, Hiroshima-ken, Japan

Mitsui, Toshio
Osaka University, Toyonaka, Japan

Authors

Adachi, Masatoshi
Toyama Prefectural University, Kosugi, Toyama-ken, Japan

Akishige, Yukikuni
Shimane University, Matsue, Japan

Asahi, Takanao
Yamaguchi University, Yamaguchi, Japan

Deguchi, Kiyoshi
Shizuoka Institute of Science and Technology, Fukuroi, Shizuoka-ken, Japan

Furukawa, Takeo
Tokyo University of Science, Tokyo, Japan

Gesi, Kazuo
Meisei University, Iwaki, Fukushima-ken, Japan

Hasebe, Katsuhiko
Yamaguchi University, Yamaguchi, Japan

Hikita, Tomoyuki
Tohoku University, Sendai, Japan

Iwata, Yutaka
Kyoto University, Kumatori, Osaka-fu, Japan

Komukae, Masaru
Tokyo University of Science, Tokyo, Japan

Mitsui, Toshio
Osaka University, Toyonaka, Japan

Nakamura, Eiji
Hiroshima University, Higashi-Hiroshima, Hiroshima-ken, Japan

Nakatani, Noriyuki
Toyama University, Toyama, Japan

Nozaki, Ryusuke
Hokkaido University, Sapporo, Japan

Osaka, Tosio
Tokyo University of Science, Tokyo, Japan

Shiozaki, Yoichi
Hokkaido University, Sapporo, Japan

Yagi, Toshiro
Hokkaido University, Sapporo, Japan

Landolt-Börnstein

Editorial Office
Gagernstraße 8
D-64283 Darmstadt, Germany
fax: +49 (6151) 171760
e-mail: lb@springer-sbm.com

Internet
www.landolt-boernstein.com

Preface

A complete new edition on ferroelectrics, Landolt-Börnstein volume III/36, is required by the growing number of publications and increasing amount of valuable data after the publication of volume III/16 (1981) and its supplement III/28 (1990). The second part of the subvolume III/36B on inorganic substances other than oxides is presented herewith.

Volume III/36 contains revised, updated and extended information on ferroelectrics, antiferroelectrics and closely related substances. All reliable data on both pure compounds and solid solutions published between 1920 and 1995 (with some more recent data) are critically evaluated and included. Besides of the dielectric and ferroelectric behavior, a number of other properties relevant to the characterization of the substances are presented in tables and figures.

As the range of the compiled data is very extensive, volume III/36 is divided into three subvolumes titled

- III/36A Oxides
- III/36B Inorganic substances other than oxides
- III/36C Organic crystals, liquid crystals and polymers.

The two subvolumes A and B are published each in two parts, C is published in one part. The titles of the two parts of subvolume III/36A are

- III/36A1 Perovskite-type oxides and LiNbO_3 family,
- III/36A2 Oxides other than Perovskite-type and LiNbO_3 family.

Titles for the two parts of subvolume III/36B are

- III/36B1 SbSI family ... TAAP,
- III/36B2 $(\text{NH}_4)_2\text{SO}_4$ family ... $\text{K}_3\text{BiCl}_6 \cdot 2\text{KCl} \cdot \text{KH}_2\text{F}_4$.

The inorganic ferroelectric crystals exhibit diverse types of phase transitions, which convey information about cooperative interactions among ions, atoms or molecules in condensed matters. They are used as dielectric, piezoelectric, pyroelectric and optic elements (e.g. in nonlinear optical devices).

Unlike previous Landolt-Börnstein volumes on ferroelectrics, volume III/36 will be published in three different forms: printed, online and on CD-ROM. The internet address of Landolt-Börnstein online is

www.landolt-boernstein.com

The CD-ROM will be offered together with the printed volume. The complete information of volume III/36 will be published online as well as on the CD-ROM. When printed the complete information of part III/36B2 alone would cover already more than 1200 pages. Therefore, to keep things handy, the printed volumes will contain only a selection of the complete data, covering roughly one third of the complete data; the basic data, all figure and table captions and all references, however, will be included. Only the number of figures and the number of tables will be reduced in the printed volume.

The editors wish to thank all the authors for their competent and persistent work, the members of the Landolt-Börnstein office, especially Mrs. A. Endemann, Mrs. H. Hämmer, Dr. R. Poerschke, Dr. W. Polzin, Mrs. D. Rathgeber-Manns, and Dr. T. Schneider for their nice cooperation and thoughtful help in the final preparation.

The Editors

August 2005

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