This volume is dedicated to the memory of W. Trzebiatowski, who did do much to stimulate the magnetism of the uranium pnictides and chalcogenides.
Preface

The Landolt-Börnstein Volume 27 deals with the magnetic properties of non-metallic inorganic compounds based on transition elements, such as there are pnictides, chalcogenides, oxides, halides, borates, silicates and phosphates. A survey of the contents of all subvolumes that have already appeared or have been planned to appear is printed on the inside of the front cover.

In order to cover the large amount of magnetic and magnetically related properties of the lanthanide and actinide pnictides and chalcogenides that appeared in literature in recent years, the subvolume 27B had to be split into subvolumes B1...B8. Subvolumes 27B1, 27B2, 27B3, 27B4 and 27B5 (published between 1998 and 2003) deal with lanthanide pnictides and chalcogenides. Pnictides are defined as compounds containing at least one of the elements P, As, Sb or Bi (V-th group of the Periodic System), and chalcogenides are defined as compounds containing one of the elements S, Se or Te (VI-th group of the periodic system).

The three subvolumes 27B6, 27B7 and 27B8 cover the properties of actinide pnictides and chalcogenides. Subvolume 27B8 (published in 2004) deals with ternary actinide pnictides and chalcogenides, while in subvolume 27B7 (published in 2005) data on binary non-equatomic actinide pnictides and chalcogenides are given.

Subvolume 27B6 has been split in two parts. Part α deals with actinide monopnictides together with isostructural monocompounds containing the element carbon, as well as mutual solid solutions with either cation or anion mixing. The present part β informs about the actinide monochalcogenides together with solid solutions between actinide elements and between elements within the Vth group or of the Vth and VIth group of the Periodic System, mainly about AnY with An = Th, U, Np, Pu and Y = S, Se, Te.

Other than in the previous subvolumes of this series, no index of substances has been supplied due to the wide range of data provided for relatively few substances. Instead, the reader is invited to peruse the detailed Survey Tables on pages 25…62, which will help the user to identify quickly the sought-after information on specific properties of the individual substances.

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The Editor
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