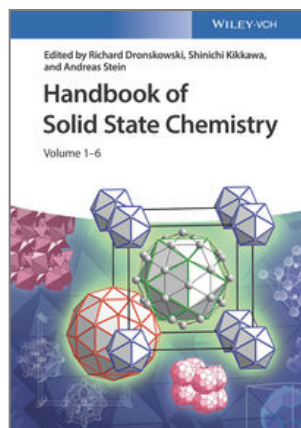


固体化学に関する今日入手可能な知見 - 合成、素材、応用など - のすべてを全6巻に収載。
すべての材料科学者、固体化学者、物理学者に不可欠なハンドブックです。



Handbook of Solid State Chemistry 6 Volume Set

Richard Dronskowski, Institute of Inorganic and Analytical Chemistry at RWTH Aachen, Aachen, Germany; Shinichi Kikkawa and Andreas Stein

The Handbook of Solid State Chemistry provides a state-of-the-art account of the chemistry of solids, nanoparticles and hybrid materials. Following a valuable introductory chapter reviewing important synthetic techniques, the comprehensive coverage is structured in the form of a series of contributions all written by experts in their respective areas. In 6 volumes the handbook collates the knowledge available on solid state chemistry starting from the synthesis, and modern methods of structure determination. Understanding and measuring the physical properties of bulk solids and the theoretical basis of modern computational treatments of solids are given ample space. Modern trends such as nanoparticles, surface properties and heterogeneous catalysis as well as industrial applications of solids e.g. in electronics, sensorics or life sciences are covered in depth. These features make this the most up-to-date compendium in solid state chemistry and its applications.

特長

- ◆ **during recent years, solid state science has become a key issue in general chemistry and material science.**
- ◆ **solid state chemistry is used in a wide range of applications including electronics, life sciences, sensors, catalysis, batteries, information storage, material design and many more. It has become one of the most important scientific topics to date**
- ◆ **the most up-to-date, comprehensive and unrivaled compendium in this field**
- ◆ **more than 150 international leading experts - the "Who's Who" in solid state science - are participating**
- ◆ **clearly structured: the handbook is divided into six thematic volumes**

対象

Solid State Chemists, Physical Chemists, Spectroscopists, Theoretical Chemists, Materials Scientists, Libraries, Solid State Physicists, Chemists in Industry

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Author biography

Richard Dronskowski studied chemistry and physics at Münster University and gained his PhD from the Max Planck Institute for Solid State Research in Stuttgart (Germany). After one year as a Visiting Scientist at Cornell University (USA) and completing his lecturing qualification in 1995, he took up the chair of Inorganic and Analytical Chemistry at RWTH Aachen University (Germany) in 1997, as head of its Institute of Inorganic Chemistry. He has won the Kekulé and Liebig scholarships, the Otto Hahn medal awarded by the Max Planck Society, and the Chemistry Lecturer prize.

Shinichi Kikkawa obtained his D.Sc. from Osaka University (Japan) in 1979 under guidance of Professor Mitsue Koizumi. He spent a year at Penn State University (USA) as a joint graduate student of Professor George Brindley (1977 - 1978). He worked as a Research Associate with Professor Koizumi (1979 - 1988) and an Associate Professor with Professor Fumikazu Kanamaru (1988 - 2000) at Osaka University. He also worked with Professor Jean Rouxel as a visiting scientist at the University of Nantes (France) in 1983. He was a Professor in Hokkaido University (2000 - 2017) and he is now an Emeritus Professor. His interests include intercalation and low dimensional compounds, preparation and structure-property relationships of metal nitrides and oxynitrides, and nanogranular thin films for optical, magnetic and electrical applications. He received many national and international awards such as the Richard M. Fulrath Pacific Memorial Award from the American Ceramic Society in 1994. He is a fellow of the Ceramic Society of Japan and an Academician in the World Academy of Ceramics.

Andreas Stein obtained his B.Sc. degree in chemistry at the University of Calgary (Canada) in 1986 and carried out his graduate work with Professor Geoff Ozin at the University of Toronto (Canada), specializing in the synthesis and characterization of zeolite materials. After earning his Ph.D. degree in 1991, he joined the Advanced Inorganic Materials group at the corporate research labs of Bayer A.G. in Germany as an NSERC postdoctoral fellow, followed by postdoctoral research with Professor Tom Mallouk at both the University of Texas, Austin, and at Penn State University (USA). In 1994 he joined the faculty at the University of Minnesota (USA), where he is now a Merck Professor and Distinguished McKnight University Professor of Chemistry. He is the recipient of several awards, including a Merck Professorship in Chemistry, a 3M Faculty Grant, a Dupont Young Professor Grant, a McKnight Land-Grant Professorship, and a prestigious David & Lucile Packard Fellowship.



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Fax 092-741-8418

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