



Frontiers of High Pressure Research II: Application of High Pressure to Low-Dimensional Novel Electronic Materials

By -

Springer. Paperback. Book Condition: New. Paperback. 557 pages. Dimensions: 9.2in. x 6.2in. x 1.3in. In recent interactions with industrial companies it became quite obvious, that the search for new materials with strong anisotropic properties are of paramount importance for the development of new advanced electronic and magnetic devices. The questions concerning the tailoring of materials with large anisotropic electrical and thermal conductivity were asked over and over again. It became also quite clear that the chance to answer these questions and to find new materials which have these desired properties would demand close collaborations between scientists from different fields. Modern techniques of controlled materials synthesis and advances in measurement and modeling have made clear that multiscale complexity is intrinsic to complex electronic materials, both organic and inorganic. A unified approach to classes of these materials is urgently needed, requiring interdisciplinary input from chemistry, materials science, and solid state physics. Only in this way can they be controlled and exploited for increasingly stringent demands of technology. The spatial and temporal complexity is driven by strong, often competing couplings between spin, charge and lattice degrees of freedom, which determine structure-function relationships. The nature of these couplings is a sensitive function of electron-electron, electron-lattice, and spin-lattice interactions;...

Reviews

Unquestionably, this is actually the greatest function by any author. I was able to comprehend every little thing using this created e ebook. Its been printed in an remarkably straightforward way which is merely following i finished reading this ebook in which in fact altered me, alter the way i think.

-- **Arianna Witting**

An exceptional book as well as the font used was exciting to read. It is actually rally intriguing through reading time. You will not sense monotony at anytime of the time (that's what catalogues are for about when you ask me).

-- **Crystal Hagenes**