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| Autore                  | Topolov Vitaly Yu                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Titolo                  | Heterogeneous Ferroelectric Solid Solutions : Phases and Domain States // by Vitaly Yu. Topolov                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Pubbl/distr/stampa      | Cham : , : Springer International Publishing : , : Imprint : Springer, ,<br>2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| Edizione                | [2nd ed. 2018.]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Descrizione fisica      | 1 online resource (201 pages)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Collana                 | Springer Series in Materials Science, , 0933-033X ; ; 151                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Disciplina              | 546.6453                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Soggetti                | Structural materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                         | Magnetism                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                         | Magnetic materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                         | Electrochemistry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                         | Physics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                         | Metals<br>Structural Materiala                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                         | Magnetism Magnetic Materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                         | Applied and Technical Physics                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                         | Metallic Materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Lingua di pubblicazione | Inglese                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| Livello bibliografico   | Monografia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Nota di contenuto       | Crystallographic Aspects of Interfaces in Ferroelectrics and Related<br>Materials Two-Phase States Coexistence Under Electric Field<br>Three-Phase States Overlapping Structures and Transition Regions<br>Relations Between Domain States and Heterophase Structures in<br>Lead-Free Ferroelectric Solid Solutions Conclusion.                                                                                                                                                                                                                                                        |
| Sommario/riassunto      | This book systematizes data on the heterophase states and their<br>evolution in perovskite-type ferroelectric solid solutions. It also<br>provides a general interpretation of heterophase and domain structures<br>on changing temperature, composition or electric field, as well as the<br>complete analysis of interconnections domain structures, unit-cell<br>parameters changes, heterophase structures and stress relief. The<br>description of numerous examples of heterophase states in lead-free<br>ferroelectric solid solutions is also included. Domain state—interface |

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diagrams put forward the interpretation of heterophase states in perovskite-type ferroelectric (FE) solid solutions and describe the stress relief in the presence of polydomain phases, the behavior of unit-cell parameters of coexisting phases, the effect of external electric field etc. This 2nd edition generalizes the results on the heterophase ferroelectric solid solutions and the stress relief and presents new results on heterophase/domain structures and phase contents in leadfree ferroelectric solid solutions.