

Disorder and strain-induced complexity in functional materials

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20425146&lokasi=lokal>

Abstrak

This book brings together an emerging consensus on our understanding of the complex functional materials including ferroics, perovskites, multiferroics, CMR and high-temperature superconductors. The common theme is the existence of many competing ground states and frustration as a collusion of spin, charge, orbital and lattice degrees of freedom in the presence of disorder and (both dipolar and elastic) long-range forces. An important consequence of the complex unit cell and the competing interactions is that the emergent materials properties are very sensitive to external fields thus rendering these materials with highly desirable, technologically important applications enabled by cross-response.