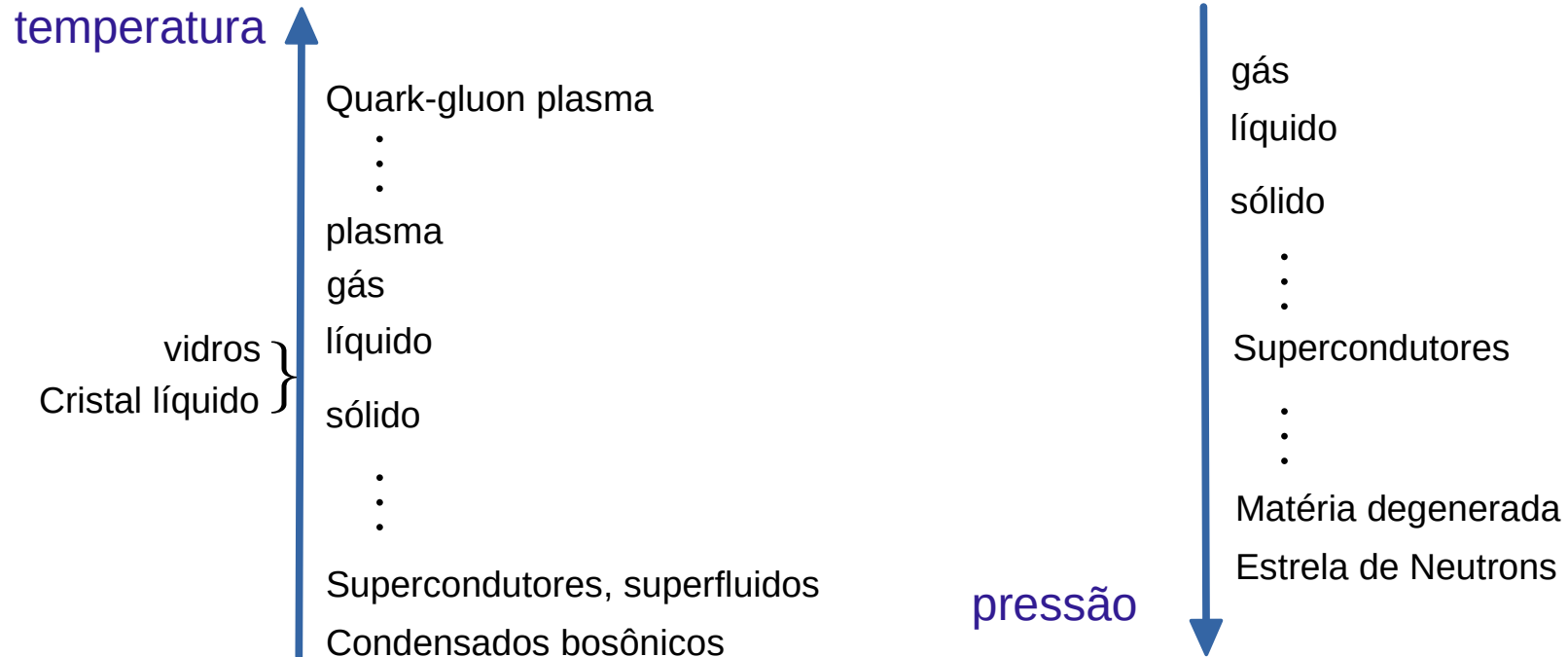


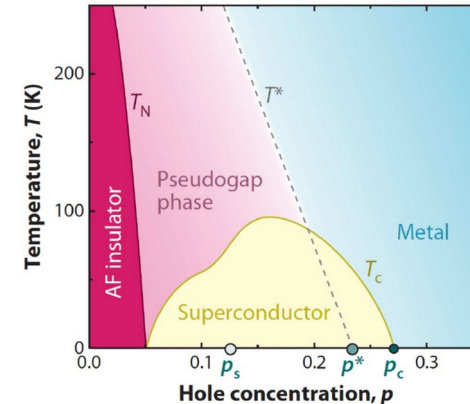
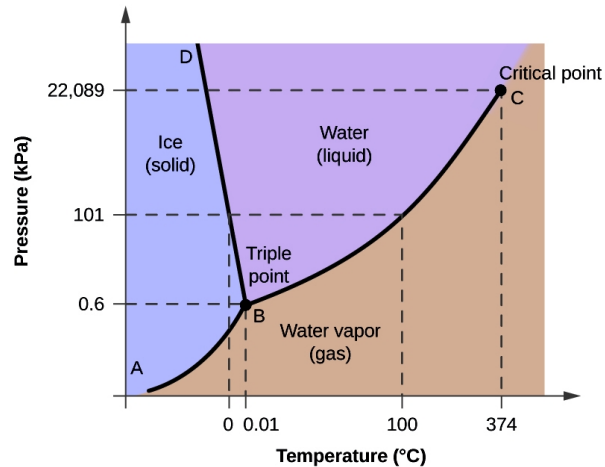
Estado da Matéria:

- agrupamento de partículas com propriedades emergentes específicas, em condições externas particulares.
- comportamento coletivo + forças de interação + características da partícula



Estado da Matéria:

- agrupamento de partículas com propriedades emergentes específicas, em condições externas particulares.
- comportamento coletivo + forças de interação + características da partícula
- Estados da Matéria:
 - Clássica (sólido, líquido, gás, etc.)
 - Quântica (supercondutor, superfluido, Quantum Hall State, condensado de Bose-Einstein, etc.)



Estado da Matéria:

- agrupamento de partículas com propriedades emergentes específicas, em condições externas particulares.
- comportamento coletivo + forças de interação + características da partícula
- Diferentes Fases no mesmo Estado da Matéria
- Video:
[How Many States Of Matter Are There?](#)

Estado da Matéria:

- agrupamento de partículas com propriedades emergentes específicas, em condições externas particulares.
- comportamento coletivo + forças de interação + características da partícula
- **Diferentes Fases no mesmo Estado da Matéria:**

Diagrama de fases do Gelo

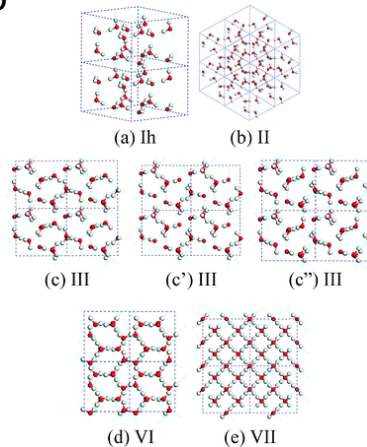
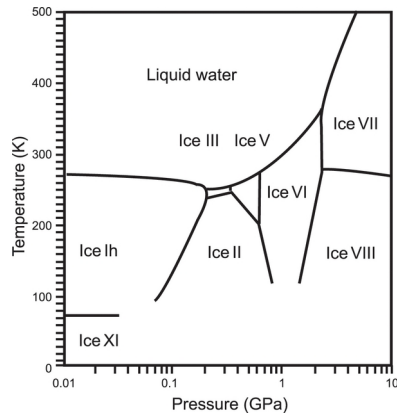
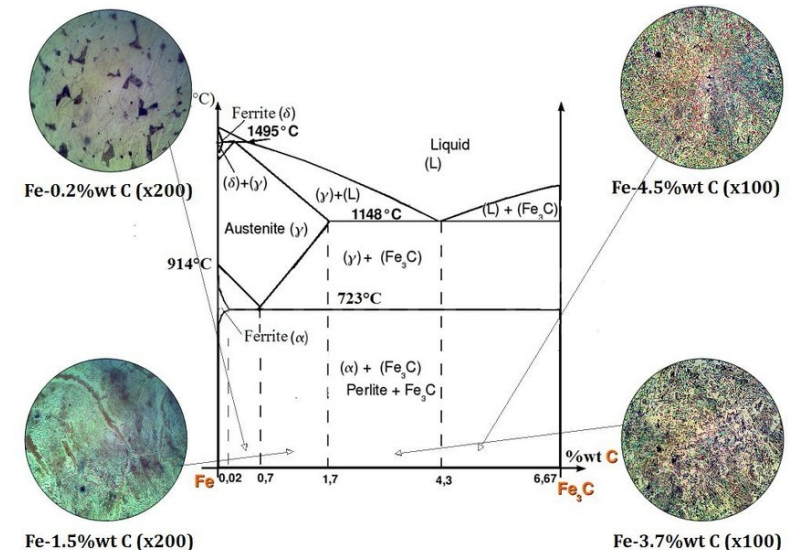
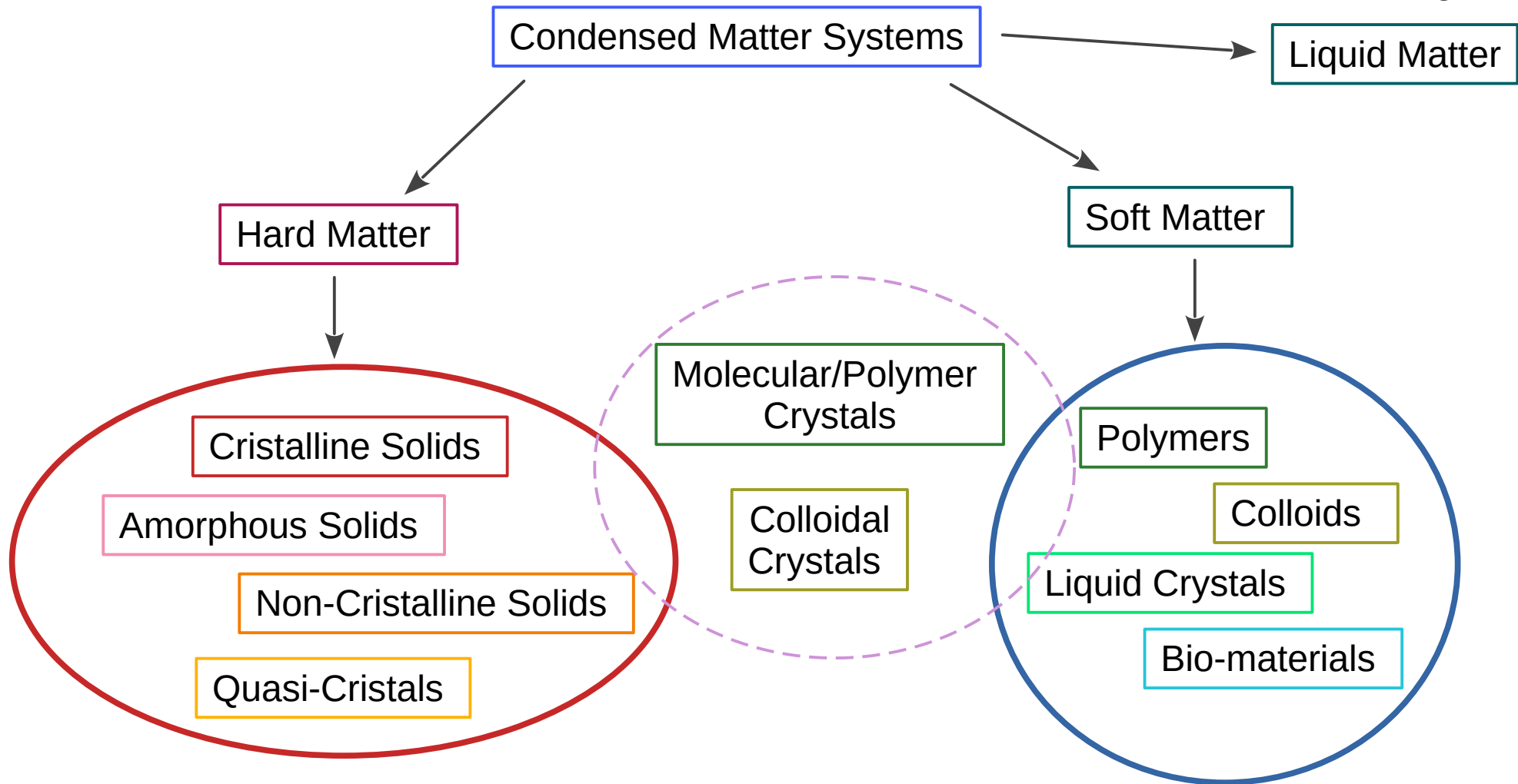
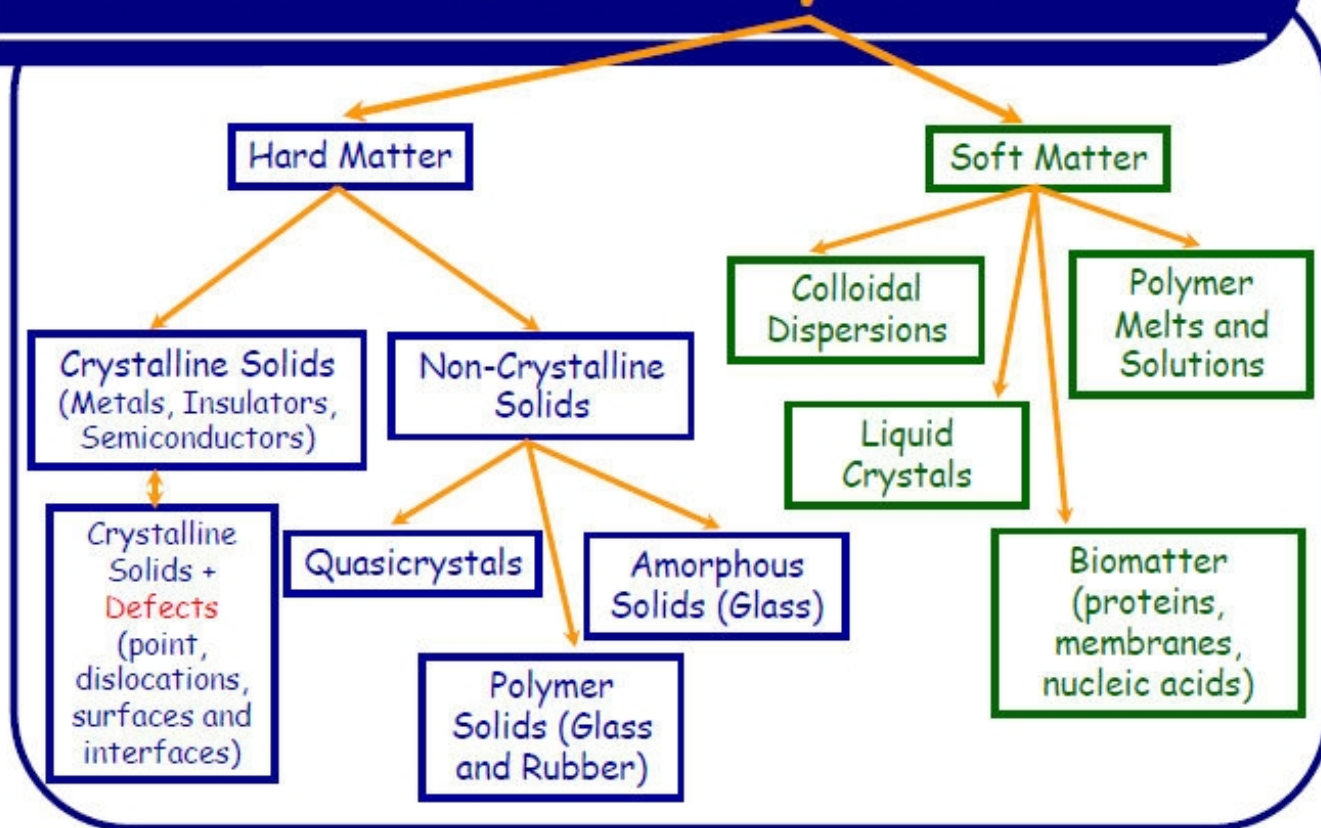


Diagrama de fases da liga Fe-C (aço)



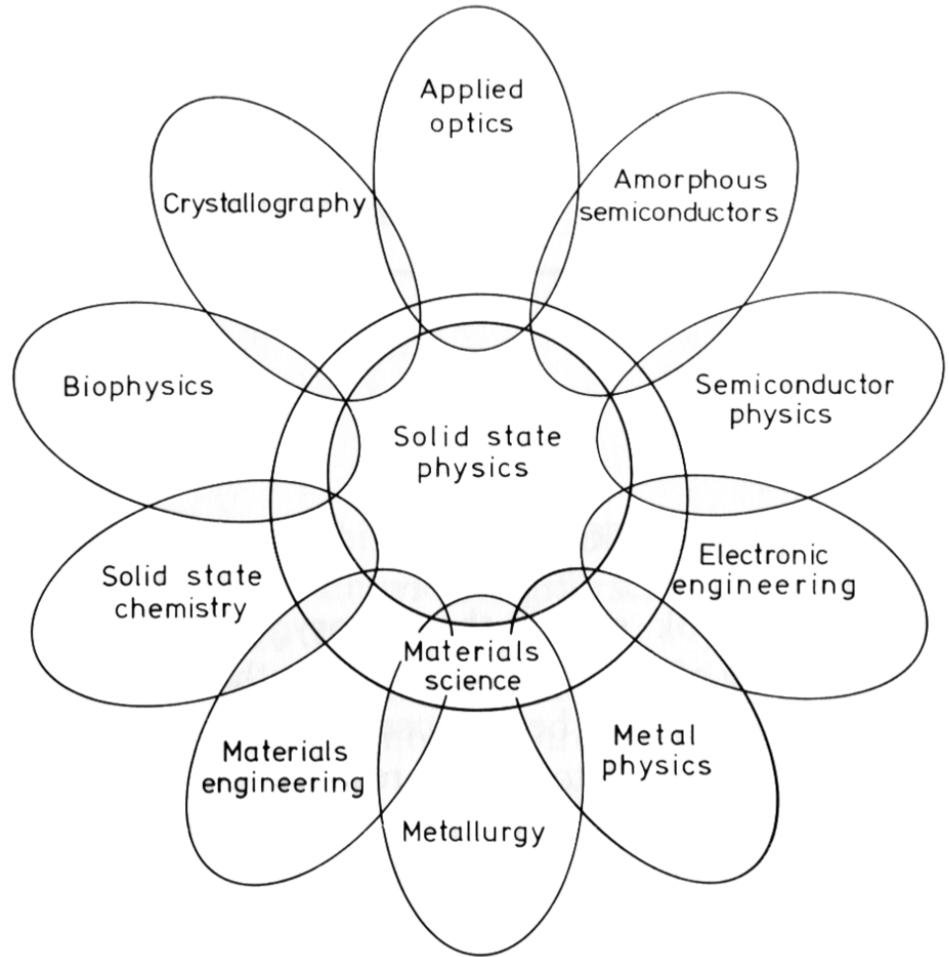
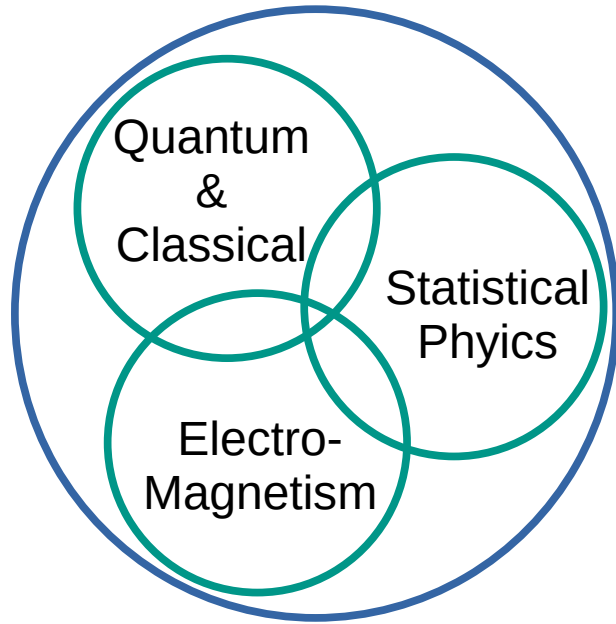


Condensed Matter Systems

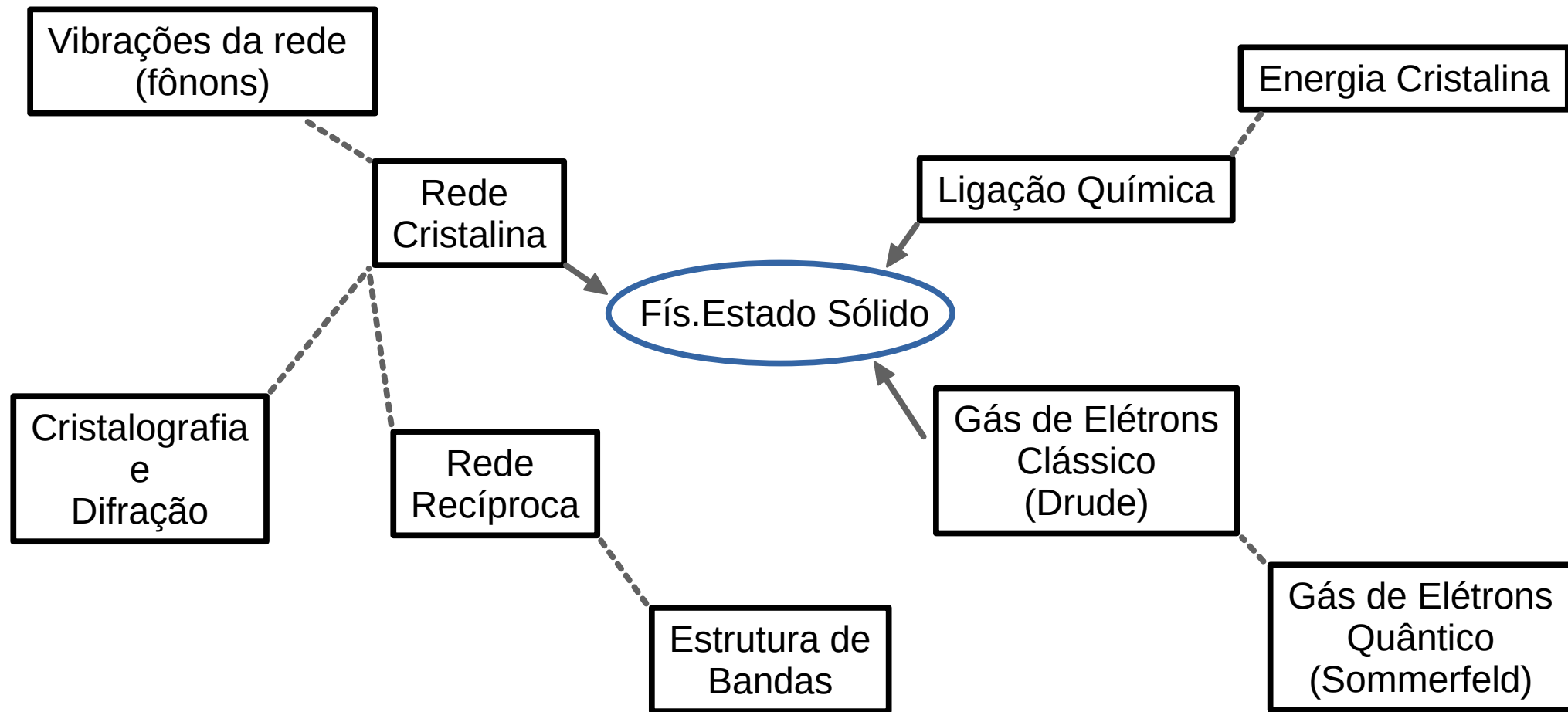


Física do Estado Sólido e Áreas do Conhecimento

Solid state
physics



Física do Estado Sólido e Áreas do Conhecimento



Bibliografia sobre Física do Estado Sólido

Charles Kittel

Introduction to Solid State Physics

1. Crystal Structure.
2. Wave Diffraction and the Reciprocal Lattice.
3. Crystal Binding.
4. Phonons I. Crystal Vibrations.
5. Phonons II. Thermal Properties.
6. Free Electrons Fermi Gas.
7. Energy Bands.
8. Semiconductor Crystals.
9. Fermi Surfaces and Metals.
10. Superconductivity.
11. Diamagnetism and Paramagnetism.
12. Ferromagnetism and Antiferromagnetism.
13. Magnetic Resonance.
14. Plasmons, Polarons, and Polaritons.
15. Optical Processes and Excitons.
16. Dielectrics and Excitons.

Ashcroft & Mermin

Solid State Physics

1. The Drude Theory of Metals
2. The Sommerfeld Theory of Metals
3. Failures of the Free Electron Model
4. Crystal Lattices
5. The Reciprocal lattice
6. Determination of Crystal Structures by X-Ray Diffraction
7. Classification of Bravais Lattices and Crystal Structures
8. Electron Levels in a Periodic Potential: General Properties
9. Electrons in a Weak Periodic Potential
10. The Tight-Binding Method
11. Other Methods for Calculating Band Structure
12. The Semiclassical Model of Electron Dynamics
13. The Semiclassical Theory of Conduction in Metals
14. Measuring the Fermi Surface
15. Band Structure of Selected Metals
16. Beyond the Relaxation-Time Approximation
-
-
-

Steve Simon

The Oxford Solid State Basics

- Part I: Solids Without Considering
Microscopic Structure:
The Early Days of Solid State
- Part II: Structure of Materials
- Part III: Toy Models of Solids in One Dimension
- Part IV: Geometry of Solids
- Part V: Neutron and X-Ray Diffraction
- Part VI: Electrons in Solids
- Part VII: Magnetism and Mean Field Theories