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18. Mechanisms of Phase Transformation Within the Miscibility Gap of Fe-Rich Fe-Al Alloys Introduction; Article (1976); 19. Critical Point Wetting; Introduction; Article (1977); 20. A Microscopic Theory of Domain Wall Motion and Its Experimental Verification in Fe-Al Alloy Domain Growth Kinetics; Introduction; Article (1977); 21. Thermodynamics of Solid and Fluid Surfaces; Introduction; Article (1978); 22. An Interface Phase Transition: Complete to Partial Wetting; Introduction; Article (1980); 23. Transitions and Phase Equilibria Among Grain Boundary Structures; Introduction; Article (1982)

24. A Metallic Phase with Long-Ranged Orientational Order and No Translational Symmetry Introduction; Article (1984); 25. Elastically Induced Shape Bifurcations of Inclusions; Introduction; Article (1984); 26. The Interactions of Composition and Stress in Crystalline Solids; Introduction; Article (1985); 27. A 6-D Structural Model for the Icosahedral (Al,Si)-Mn Quasicrystal; Introduction; Article (1988); 28. Geometric Models of Crystal Growth; Introduction; Article (1992); 29. Crystal Shapes and Phase Equilibria: A Common Mathematical Basis; Introduction; Article (1996)

30. The Time Cone Method for Nucleation and Growth Kinetics on a Finite Domain

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Sommario/riassunto

This book represents a collection of 30 selected papers from the work of John W. Cahn. Dr. Cahn is Senior Fellow at the Materials Science and Engineering Laboratory of the National Institute of Standards and Technology, and is widely recognized as a founder of modern theory and thought in materials science. The range of his research included kinetics and mechanisms of metallurgical phase changes, surfaces, interfaces, defects, quasicrystals, thermodynamics, and other areas impacting the fundamental understanding of materials science. Each paper includes a 2-4 page review of the impact and hi

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