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V. KINETICS OF TRANSITIONS BETWEEN STATES: MAPPING INTO A DISCRETE MARKOV PROCESS. A. Three Simultaneously Stable States (Seven-Steady-State Region); B. Two Simultaneously Stable States (Five-Steady-State Region); C. Two Simultaneously Stable States (Three-Steady-State Region); VI. IRREVERSIBLE THERMODYNAMICS OF FLUCTUATION-INDUCED TRANSITIONS; VII. CONCLUSIONS; ACKNOWLEDGMENTS; REFERENCES; DYNAMICAL RARE EVENT SIMULATION TECHNIQUES FOR EQUILIBRIUM AND NONEQUILIBRIUM SYSTEMS; I. INTRODUCTION; II. REACTIVE FLUX METHOD; III. TRANSITION PATH SAMPLING; IV. TRANSITION INTERFACE SAMPLING V. PARTIAL PATH SAMPLING VI. FORWARD FLUX SAMPLING; VII. REPLICA EXCHANGE TIS; VIII. NUMERICAL EXAMPLE; IX. CONCLUSIONS; ACKNOWLEDGMENTS; REFERENCES; CONFOCAL DEPOLARIZED DYNAMIC LIGHT SCATTERING; I. INTRODUCTION; II. FUNDAMENTALS OF DEPOLARIZED SCATTERING: THE STATE OF THE ART; III. THE TRADITIONAL APPROACH; IV. THE NOVEL APPROACH; V. THE OPTICAL LAYOUT; VI. DATA REDUCTION SCHEME; VII. RESULTS; VIII. CONCLUSIONS; ACKNOWLEDGMENT; REFERENCES; THE TWO-STEP MECHANISM AND THE SOLUTION-CRYSTAL SPINODAL FOR NUCLEATION OF CRYSTALS IN SOLUTION; I. INTRODUCTION; II. THE CLASSICAL NUCLEATION THEORY

A. The Crystallization Driving Force B. The Thermodynamic Theory of J. W. Gibbs; C. The Rate of Crystal Nucleation; III. THE TWO-STEP MECHANISM AND THE SOLUTION-CRYSTAL SPINODAL; A. Experimental Data on the Rate of Nucleation of Crystals; B. The Nucleus Size and Solution-to-Crystal Spinodal; C. The Classical Theory Overestimates the Crystal Nucleation Rate by 10 Orders of Magnitude; D. The Two-Step Mechanism of Nucleation of Crystal in Solution; E. Dense Liquid Clusters; F. The Rate Law for the Two-Step Mechanism of Crystal Nucleation

G. The Rate-determining Step in the Two-Step Nucleation Mechanism H. The Role of Heterogeneous Nucleation Substrates; I. The Broad Applicability of the Two-Step Nucleation Mechanism; IV. SUMMARY AND CONCLUSIONS; ACKNOWLEDGMENTS; REFERENCES; EXPERIMENTAL STUDIES OF TWO-STEP NUCLEATION DURING TWO-DIMENSIONAL CRYSTALLIZATION OF COLLOIDAL PARTICLES WITH SHORT-RANGE ATTRACTION; I. INTRODUCTION; II. EXPERIMENTAL METHODS: SAMPLE PREPARATION AND IMAGING; III. ANALYSIS OF IMAGES: PARTICLE COORDINATES, AREA FRACTION, CLUSTER SIZES, AND CRYSTALLINE ORDER; IV. RESULTS

A. Single-Step and Two-Step Nucleation of Crystallites

Sommario/riassunto

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