		樂
		~
		lati
55		

Contents

Part I	Basic Concepts	
	namic Aspects of Selforganization beling, H. Engel-Herbert, and H. Herzel (With 6 Figures)	2
Entropy in	n Time Averaging. By Yu.L. Klimontovich	17
Phase Tra	n Theory and Dynamics of First-Order Insitions in Finite System Oricht, F. Schweitzer, and R. Mahnke (With 11 Figures)	23
of Turbule	Chaos in Ensembles of Structures and Spatial Development ence in Unbounded Systems Gaponov-Grekhov and M.I. Rabinovich (With 5 Figures)	37
Part II	Stochastic and Statistic Theory	
Nonlinear	Chemical Reactions in Diluted Solutions. By R. Feistel	48
Stochastic	Thermodynamics. By C. Van den Broeck	57
	Measures as Critical Quantities in Nonequilibrium Phase s. By F. Schlögl	62
By L. Sch	netics of Nucleation in Isochoric Gases imansky-Geier, F. Schweitzer, W. Ebeling, and H. Ulbricht igures)	67
	operties of the Nonequilibrium Potential Near Bifurcation A.V. Tolstopjatenko and L. Schimansky-Geier	76
	Fluctuation-Dissipation Models of Charge Transfer orium Electrical Noise and 1/f-Noise. By G.N. Bochkov	85
	on of Path Integrals to Stochastic Reaction-Diffusion By A. Förster and A.S. Michailov	89
	od of Green's Functions in Nonequilibrium Statistical s. By D. Kremp, M. Schlanges, and Th. Bornath	95

Transport Phenomena in Many-Particle Systems and the Quantum Statistical Approach to Nonequilibrium Thermodynamics By G. Röpke (With 3 Figures)			
Part III Dissipative Structures			
Dynamics of Interfaces in Random Media By A. Engel, W. Ebeling, R. Feistel, and L. Schimansky-Geier (With 4 Figures)	110		
Autosolitons in Active Systems with Diffusion By B.S. Kerner and V.V. Osipov (With 4 Figures)	118		
Repressing of Chemical Waves by Photochemical Inhibitor Releasing By L. Kuhnert, L. Pohlmann, HJ. Krug, and G. Wessler (With 3 Figures)	128		
Dynamic Patterns in Interacting Chemical Cells and Effects of External Periodic Forcing By M. Marek, M. Dolnik, and I. Schreiber (With 1 Figure)	133		
Pattern in Marangoni-Instability Varied by Shear Stress Between Interface and Bulk. By W. Waldhelm and H. Linde (With 7 Figures)	137		
Ostwald Ripening in Viscoelastic Media By J. Schmelzer and I. Gutzow (With 8 Figures)	144		
Thermodynamic Parameters and Structural Criteria for Phase Transformations in Amorphous Covalent Bound Materials By W. Pompe and A. Richter (With 3 Figures)	149		
Part IV Evolution Processes			
Turing Structures in Cytokinesis, Mitosis and Early Embryogenesis By A. Hunding (With 5 Figures)	158		
Qualitative Properties of Chains as Models of Growth and Binary Coding. By M. Peschel and W. Mende (With 4 Figures)	164		
A Study Program of Chaotic Dynamics Applied to Information Processing. By J.S. Nicolis (With 2 Figures)	174		
The Evolutionary Triad. By M.V. Volkenstein	188		
Part V Chaotic Processes			
Fully Developed Chaos in One-Dimensional Discrete Processes By G. Györgyi and P. Szepfalusy (With 3 Figures)	196		

Universal Scaling Properties of Nonlinear Dissipative Systems By-R.W. Leven and B. Pompe (With 3 Figures)	98
ta — N	03
	07
Complexity of Patterns Generated by One-Dimensional Cellular Automata	4.9
By R. Mahnke and A. Budde (With 1 Figure)	