Contents

Introducing the Concept of Activation and Blocking of Rules in the General Framework for Regulated Rewriting in Sequential Grammars
A. Alhazov, R. Freund, S. Ivanov 1

One-Membrane P Systems with Activation and Blocking of Rules
A. Alhazov, R. Freund, S. Ivanov 23

Input-Driven Tissue P Automata
A. Alhazov, R. Freund, S. Ivanov, M. Oswald, S. Verlan 39

A Note on a New Class of APCol Systems
L. Ciencialová, E. Csuhaj-Varjú, G. Vaszil 59

P Colony Automata with LL(k)-like Conditions
E. Csuhaj-Varjú, K. Kántor, G. Vaszil 69

Testing Identifiable Kernel P Systems Using an X-machine Approach
M. Gheorghe, F. Ipate, R. Lefticaru, A. Ţurlea 79

Spiking Neural P Systems with Addition/Subtraction Computing on Synapse
Y. Jiang, Z. Chen 97

Characterizing **PSPACE** with Shallow Non-Confluent P Systems
A. Leporati, L. Manzoni, G. Mauri, A.E. Porreca, C. Zandron 109

Limits on P systems with Proteins and Without Division
D. Orellana-Martín, L. Valencia-Cabrera, A. Riscos-Núñez, M.J. Pérez-Jiménez 123

Narrowing Frontiers of Efficiency with Evolutional Communication Rules and Cell Separation
D. Orellana-Martín, L. Valencia-Cabrera, B. Song, L. Pan, M.J. Pérez-Jiménez 139

Author Index 163