

Abstract Submitted
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Approaches to Chemical and Biochemical Information and Signal Processing VLADIMIR PRIVMAN, Clarkson University — We outline models and approaches for error control required to prevent buildup of noise when “gates” and other “network elements” based on (bio)chemical reaction processes are utilized to realize stable, scalable networks for information and signal processing. We also survey challenges and possible future research.

[1] Control of Noise in Chemical and Biochemical Information Processing, V. Privman, *Israel J. Chem.* 51, 118-131 (2010).

[2] Biochemical Filter with Sigmoidal Response: Increasing the Complexity of Biomolecular Logic, V. Privman, J. Halamek, M. A. Arugula, D. Melnikov, V. Bocharova and E. Katz, *J. Phys. Chem. B* 114, 14103-14109 (2010).

[3] Towards Biosensing Strategies Based on Biochemical Logic Systems, E. Katz, V. Privman and J. Wang, in: *Proc. Conf. ICQNM 2010 (IEEE Comp. Soc. Conf. Publ. Serv., Los Alamitos, California, 2010)*, pages 1-9.

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